

Product Range

SYGEF PVDF



Building the lifelines of the world

GF Piping Systems is the global expert for the safe and reliable transportation of water, chemicals, and gas. The maintenance-free and long-lived piping systems made of plastics help implement vital applications of our customers faster, more cost-effectively and more sustainably. GF Piping Systems supports its customers throughout all phases of their projects from planning to commissioning.

+ Maintenance-free plastic

Piping systems made of plastics are maintenance-free, light and very durable. They help reduce repair and overall costs and are suitable for the transport of drinking water, abrasive and aggressive liquids, as well as gas.

+ Complete system solutions

With more than 60'000 products, GF Piping Systems can offer complete system solutions. In addition, custom-made special parts and special series are also possible. Customers benefit from perfectly matched solutions from a single source.

+ Local support

GF Piping Systems has its own sales companies in 34 countries, which means it is always by its customers' side. Our production sites in 32 locations in America, Europe, and Asia ensure sufficient availability and quick, reliable delivery.

+ Service in all project phases

GF Piping Systems supports its customers both in the initial switch from metal to plastic and in retrofits – across all project phases. They benefit from more than 60 years of experience in plastic systems and application knowledge from 100 countries.

+ Partner for digitization

With its advanced automation and digitization solutions, GF Piping Systems allows its customers to optimize their applications and gives them easier access to their system data. Digital tools support you in every phase of the project.

Facts and figures

- **Established:** 1802 (Georg Fischer AG) in Schaffhausen, Switzerland
- **Locations:** 34 countries with own sales offices
- **Turnover:** CHF 1.802 billion (2019)
- **Employees:** 6'892 (2019)



The GF Piping Systems plant in Schaffhausen, Switzerland.

The system

The System for highly demanding applications

Superior purity, outstanding chemical and temperature resistance

We are dedicated to designing, manufacturing and marketing piping systems for the safe and secure treatment or conveyance of different qualities of water, liquids and chemicals. Customers rely on our 40+ years experience in Fluoropolymers, our state-of-the-art production technology and our global presence with a worldwide service and training offering. In close collaboration with end-customers and based on their high requirements, GF Piping Systems introduced the SYGEF family – specified PVDF system based on certified raw material. SYGEF is the optimal choice for highly demanding applications on the industrial field.



+ Individuality – From the planning stage to installation

SYGEF Standard (PVDF)

The single-bagged and reliable transport solution for chemical and water applications – even at high temperatures. Defined manufacturing conditions and a high performance raw material ensure the suitability for harsh environments as encountered in disinfection and chemical transport.

SYGEF Plus (PVDF HP)

The double-bagged, high purity (HP) piping system offers additional opportunities for highly demanding applications like conveying hot ultrapure water (HUPW) for microelectronic industries. By manufacturing, cleaning and packing under cleanroom conditions up to ISO class 5 (100), SYGEF Plus achieves an excellent surface finish, superior leach out characteristics and stringent particle control combined with high reliability and product lifetime.



Pipes



Fittings



Valves

Quality control and assurance

SYGEF systems warrant 100% traceability through our computer aided quality production, packaging and labeling from raw material to the end product.

Temperature and chemical resistance

SYGEF systems are reliable for difficult applications with high temperatures and aggressive chemicals. Through our service team we offer individual support to match your material requirements.



+ Main benefits

Complete system range

- One-stop-shopping
- Including pipes, fittings, valves and automation
- Proven jointing technologies
- Worldwide service: customizing, machine rental pool, training and sales support
- System lifetime warranty*

Total plastic solution

- Outstanding temperature range
- Excellent chemical resistance and purity
- Extremely smooth surface finish
- Rouging- and corrosion-free
- Excellent abrasion resistance
- UV and weather resistant
- No electric conductivity
- Low thermal conductivity

High purity application

- Virgin raw materials
- No additives, stabilizers or pigments
- Outstanding leach-out values
- Fully controlled clean room production
- 100% traceability and audited by an independent external company



Automation



Jointing technology



Customizing and training

Technical support

For any successful installation a good technical support is the key factor. A team of experts is available for individual assistance all around the world.

Customizing

The focus of our worldwide located customizing teams is manufacturing custom parts for special systems. Standardized processes guarantee the highest level of quality.

* Detailed information regarding the warranty can be found under: www.gfps.com – Planning Fundamentals

Technical documentation

Our extensive expertise of more than 50 years is fully documented in detail in our technical manuals, planning fundamentals and application guides.

Training courses and on-site training

We offer a wide range of training courses that provide participants an excellent opportunity to gain confidence in working with our products and proven jointing technologies.

Online and mobile calculation tools

Our numerous online and mobile calculation tools in many different languages support our customers in configuring and commissioning automation products.

Digital libraries

The libraries cover three key areas for the design, creation and maintenance of a project: Building Information Modeling, the Plant Design Software and the CAD Library, helping you reduce costs and construction times.

Completely controlled process

The SYGEF High Purity Chain

1 Raw material

SYGEF starts the journey with the highest available quality raw materials. Our suppliers provide analytical proof of compliance with the highest specifications for every shipment. Once the raw materials enter our plant, GF performs extensive incoming goods inspection. This assures that only raw materials fulfilling the strict requirements are released for production.

2 Manufacturing

Manufacturing of SYGEF Plus products is done under clean room class 5 (100) conditions by using completely controlled processes. During the whole production process the inner surface area of pipes, fittings and valves are only in contact with air of clean room class 5 (100).

3 Quality control

A very detailed and unique QS-system has been implemented to ensure the highest level of quality. It is directly linked to the manufacturing of the complete SYGEF range and includes a 100% inspection of every product to ensure maximum performance including visual inspection, valve packaging and valve seat-tests.

The high purity chain is made up of six links. Each one plays its important role

Manufacturing a product that achieves the lowest possible levels of particle contamination, TOC, anionic and cationic contamination, ultimate surface finish is the result of the relevant links. But it does not stop here. When the product leaves our state-of-the-art warehouse it is delivered to you in protective packaging.

Finally the installation is supported by the most advanced and established welding technology in existence. This technology combined with years of installation training experience make the most of the product when it is installed.

4 Cleaning & packing

Highest purity through consistent cleaning of all SYGEF Plus products is achieved by using 18MΩ pure water and special cleaning devices under clean room class 5 (100) conditions. All products are packaged under selected and strictly monitored process conditions to avoid contamination. Pipes are capped and all SYGEF Plus components are double bagged with a high quality, certified clean bagging material.

6 Installation & services

With broad selection of system specific state-of-the-art welding equipment GF is offering proprietary IR welding technology up to d450mm. Enhanced by industry leading weld bead inspection the highest quality and most reliable system is ensured. Project support including design, installation training and worldwide located service centers completing the high purity chain.

5 Logistics

SYGEF products are stored in a separate warehouse for pipes, fittings and valves with distribution centers located worldwide. To avoid damage of SYGEF pipes GF has designed special wooden boxes for storage and transportation. This ensures that the highest possible quality and safety during transportation to the customer is ensured.

High tech factory Ettenheim / Germany

SYGEF Cleanroom Production

All SYGEF components are manufactured in the world's largest cleanroom factory for fluoropolymer products in Ettenheim

GF Piping Systems played a major role in establishing the relevant standards SEMI F40, F48 and F57 for polymer component testing. Due to long experience and continuous improvements SYGEF Plus pipes, fittings and valves are exceeding these requirements to increase our customers' yield. SYGEF Plus products are strictly fulfilling the strong requirements of the IRDS roadmap* in order to be prepared for upcoming, even more demanding processes in the future.



Fully controlled environment

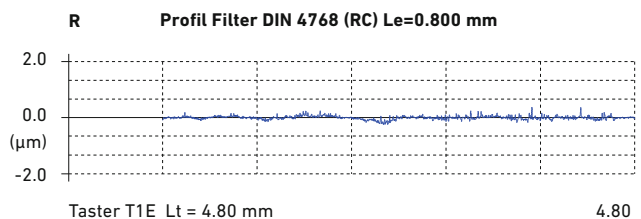
The SYGEF production area includes 5600m² cleanroom: 4000m² class 7 (10000), 1000m² class 6 (1000) and 600m² class 5 (100) in operation. All cleanrooms are continuously monitored and audited internally and by external companies. The microbiological and specified particle measurements are fully documented with a unique quality assurance (QA) system.

Ultrapure water plant

Cleaning and rinsing of components with water of impeccable quality assures a constantly high level of cleanliness. SYGEF Plus products are subject to regular leach-out controls. Elementary system impurities like metals, anions and TOC** are constantly monitored to exceed SEMI F57 requirements to warrant the highest possible system performance in use.

Surface quality

Smooth surfaces are achieved due to special equipment design, proper tooling material's selection, mirror finish surface of inner cores and preventive maintenance schedule. Thereby for all SYGEF Plus products the inner surface roughness according SEMI F57 is surpassed.



Inner surface roughness measured at a SYGEF Plus T90° equal d250 SDR33/PN10



Process expertise

Operating staff has in-depth process knowledge and over 45 years of experience in manufacturing products under strictly controlled cleanroom conditions. With regular internal trainings we ensure that our production team keeps always the highest performance and has the latest insights. All the injection molding machines and extrusion lines are developed by using the latest innovations and technologies.

Quality Assurance

The safe delivery to jobsite and traceability of the finished product back to the raw material batch are ensured through completely controlled processes. All relevant data are archived in an internal QA database and electronically available for statistical researches.

Safe and reliable system

Quality control is an integral part in every step of the high purity chain. Therefore each SYGEF Plus component is 100% visually inspected, including overall cleanliness, surface appearance and imperfections in accordance to internal specifications.

All mechanical testing takes place in matchless Swiss federally accredited lab facility and external certificated labs. Together with unsurpassed installation equipment GF Piping Systems is superior regarding ovality, internal stress level and warpage. These key factors are able to influence the weld strength which leads to a longer system lifetime and a higher safety.



* IRDS: International Roadmap for Devices and Systems

** TOC: Total Organic Carbon

System range

More Than a System

With a constant focus on maximum reliability and safety the SYGEF system assures a sustained high level of product quality and outstanding performance for high-end applications. By using certified and completely controlled manufacturing processes the SYGEF products are manufactured according to all relevant specifications and these procedures are regularly audited and evaluated to achieve continuous improvement. Our customers can be assured that their needs are met or exceeded and that the products comply with all necessary standards.

SYGEF Standard and SYGEF Plus system range

Products	SDR	PN	d		16	20	25	32	40	50	63	75	90	110	125	140	160	200	225	250	280	315	355	400		
			DN	10	15	20	25	32	40	50	63	75	90	110	125	140	160	200	225	250	280	315	355	400		
Pipes	21	16	SYGEF Standard																							
	33	10	SYGEF Plus																							
Socket fusion fittings		16	SYGEF Standard																							
Butt fusion fittings (IR and BCF compatible)	21	16	SYGEF Standard																							
	33	10	SYGEF Plus																							
Ball valves		16	SYGEF Standard																							
		10	SYGEF Plus																							
Diaphragm valves		16	SYGEF Standard																							
		10	SYGEF Plus																							
Butterfly valves		10	SYGEF Standard																							
		16	SYGEF Plus																							
Check valves		16	SYGEF Standard																							
		10	SYGEF Plus																							
Pressure regulating valves		10	SYGEF Standard																							
Ventilating- and bleed valves		16	SYGEF Standard																							
Automation			SYGEF Standard																							
Flanges			SYGEF Standard																							
Flange seal			SYGEF Standard																							
Pipe clips			SYGEF Standard																							
IR fusion machine			SYGEF Standard																							
BCF fusion machine			SYGEF Standard																							
Butt fusion machine*			SYGEF Standard																							
Socket fusion machine			SYGEF Standard																							

SYGEF Standard SYGEF Plus

* Technically possible but not recommended for SYGEF PVDF

System specifications



	SYGEF Standard	SYGEF Plus
Material	PVDF	virgin High Purity PVDF (PVDF-HP)
Color	opaque	opaque
Density	~1.78 g/cm ³ (EN ISO 1183)	~1.78 g/cm ³ (EN ISO 1183)
Thermal expansion coefficient	0.12–0.18 mm/m K (DIN 53752)	0.12–0.18 mm/m K (DIN 53752)
Thermal conductivity at 23 °C	0.19 W/m K (EN 12664)	0.19 W/m K (EN 12664)
Yield stress at 23 °C	≥ 48 N/mm ² (EN ISO 527)	≥ 48 N/mm ² (EN ISO 527)
Tensile e-modulus at 23 °C	≥ 1 800 N/mm ² (EN ISO 527/ASTM D790)	≥ 1 800 N/mm ² (ISO 527/ASTM D790)
Charpy notched impact strength at 23 °C	≥ 8 kJ/m ² (EN ISO 179)	≥ 8 kJ/m ² (EN ISO 179)
Dimensions	d16–d315 in accordance to ISO 10931	d20–d400 in accordance to ISO 10931
Temperature rating	from -20 °C to 140 °C (-4 °F to 284 °F)	
Production	<ul style="list-style-type: none"> - Pipes: extruded - Fittings: injection moulded / machined - Valves: injection moulded (additional oil free treated and paint compatible / silicon free) 	<ul style="list-style-type: none"> - Pipes: extruded - Fittings / Valves: injection moulded / machined - Produced under clean room class 5 (100) conditions. Subsequent assembling, quality inspection and cleaning by using 18MQ pure water under clean room conditions class 5 (100).
Surface finish Compliant to Semi F57	Inner surface Ra < 0.5 µm (20µin) for injection moulded and extruded components	Inner surface (PN10/ SDR33): d ≤ 225 Ra ≤ 0.2 µm (8µin) d = 250 Ra ≤ 0.3 µm (12µin) d280–315 Ra ≤ 0.4 µm (16µin) d355–450 Ra ≤ 0.65 µm (26µin) for injection moulded and extruded components
Internal stress	Pipes: ≤ 2.5 N/mm ² ; stress relieved by thermal annealing during manufacturing	
Material and product approvals	DIBt FM-4910 listed cleanroom material FDA CFR 21 177.2510; EU 10/2011 USP 25 class VI (physiological non-toxic) ASME BPE	SEMI F57 FM-4910 listed cleanroom material DIBt FDA CFR 21 177.2510; EU 10/2011 USP 25 class VI (physiological non-toxic) ASME BPE
Packing	Pipes capped and multiple components single bagged in a specified bag	Pipes capped and each component double bagged in a specific inner and outer bag under clean room class 5 (100) conditions
Marking and labeling	All components are embossed with a permanent identification during the production process to ensure full traceability:	
	<ul style="list-style-type: none"> - Brand name - Material - Dimensions - Pressure rating 	<ul style="list-style-type: none"> - Lot No. - Product description - Article number - Standard and approvals

Approvals / Acceptance:



Convincing Welding Technologies

A diverse range of innovative and intelligent welding solutions is enriched with global training and service offerings

As a pioneer in the field, GF Piping Systems has always placed a very high priority on developing innovative joining techniques to fulfill specific requirements and materials in use. Simplicity in application, chemical resistance, thermal stability and long-term weld strength are the key drivers in our joining technologies. With a global joining training program, international machine rental and a worldwide network of service centers, our customers benefit from our expertise and practical experience.

Welding technology

Socket fusion – the strong connection

The fast and reliable solution to produce heavy-duty connections, in the workshop or the field.

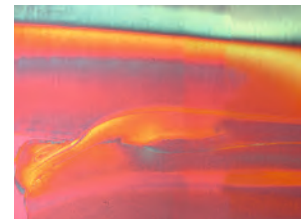
Welding machine



Joint cross-section

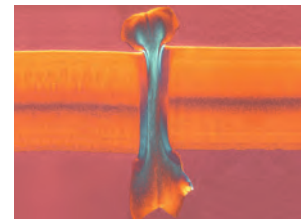


Microscopy



Butt fusion – the economical connection

Economical and flexible fusion especially for larger diameters. From manual machines to full CNC control with traceability.



IR- (Infrared) fusion – the fast, clean connection

Fast, repeatable and clean welds via non-contact heating. Full traceability of the welding process, with user guidance.



BCF-Plus fusion – the smooth connection

Bead and Crevice Free joining with the highest weld factor, lowest stress and completely smooth fusion zone without any intrusions.



For more information about training courses from GF Piping Systems please contact our local sales companies.

SYGEF system

Key Products Specially Designed for You

Continuous improvements and new developments assure a maximum level of quality to our customers. The SYGEF Plus system offers very unique key products which are specially designed by GF Piping Systems to fulfill even the highest requirements in segments like Microelectronic, Energy and Chemical Process Industry.



System up to d400

- Completely controlled processes from raw material to installation
- Overall system reliability, purity and safety
- Wide range of pipes, fittings, valves, automation and accessories
- Stress reduced pipes
- SEMI F57 conformity



High purity union

- Special HP design with unique positioning of the sealing
- Defined tightening for optimal deforming of the O-ring
- Crevice and dead space free to avoid bacterial growth
- Full plastic design without metal parts
- In accordance with ASME-BPE



High purity diaphragm valves

- Maintenance free during temperature cycles due to full plastic design
- Maximized purity due to minimized dead legs and manufacturing in clean room class 5 (100)
- Double flow rate compared to other diaphragm valves



Pressure regulating valves (PRV)

- Special HP-version with patented elastomer-free piston – no abrasion
- Valve assembly without metal screws for safer operation
- Compact and intelligent modular design
- Easy maintenance through replaceable cartridge



Automated IR fusion machines

- Minimized operator errors through automated fusion process
- More free space for complex installations
- Easy and interactive handling
- Reduced cooling time through active cooling (IR-315 A)



Ultrasonic flowmeter

- Noninvasive clamp-on design enables contamination free flow measurement
- Easy to retrofit – minimum downtime
- Real time monitoring
- Clean solution – no contact with medium
- Economic solution

Specifications

Exceeding Your Standards of Quality

Technical specifications with focus on pressure, temperature and high purity attributes

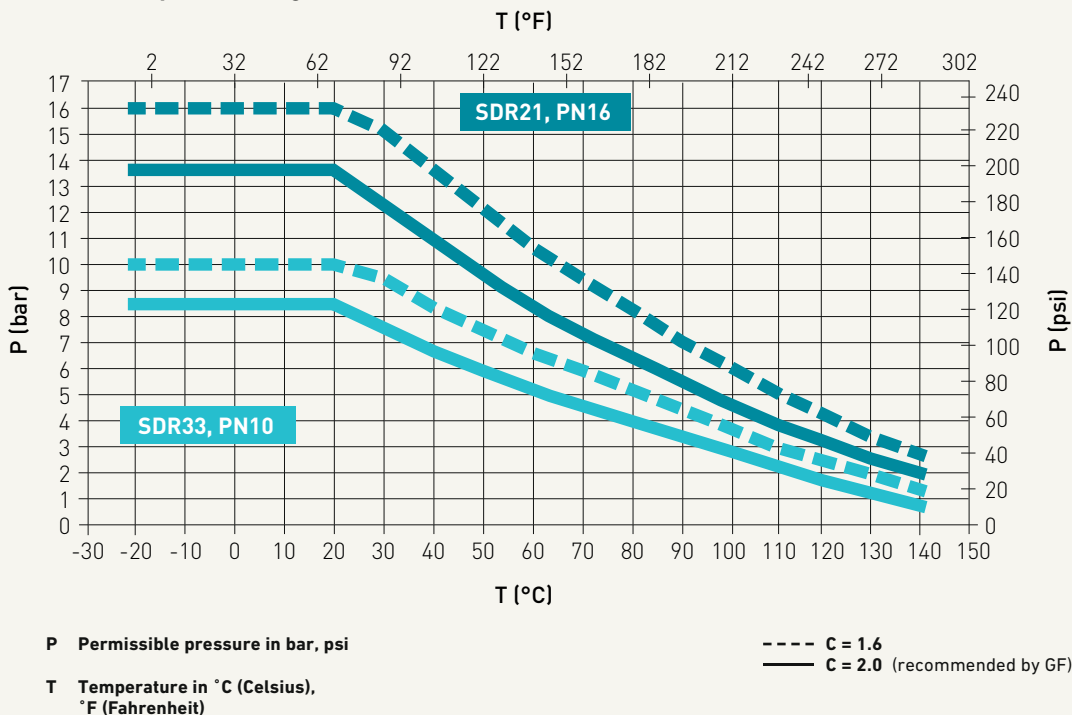
Excellent pressure/temperature performance

SYGEF PVDF is a thermoplastic fluoropolymer with a melting point above 175 °C and a wide service temperature range from -20 °C to 140 °C. SYGEF systems are ideal for use in aggressive chemical or ultrapure water systems since they are generally considered inert, have high strength and stiffness, and are readily weldable into system components.

Sterilization / sanitization / cleaning

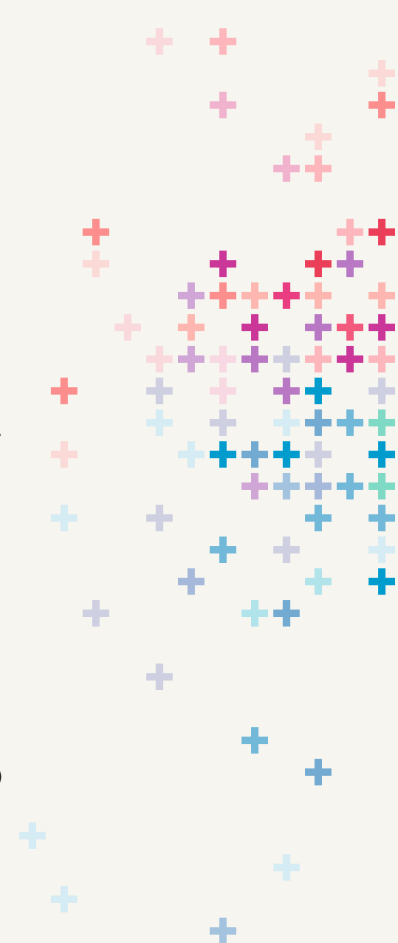
Due to its outstanding material properties, our SYGEF systems are suitable for a broad range of sterilization or cleaning methods using steam, hot water, ozone and chemicals.

Pressure-temperature diagram



The pressure/ temperature curve based on medium water, operating temperature of 20°C, valid life time of 25 years and the design factor of C = 2.0 or C = 1.6 respectively

More information regarding technical specifications can be found online in our planning fundamentals: www.gfps.com



Chemical resistance

For Your Operational Safety



Professional material technology

Polyvinylidene fluoride (PVDF) – a high quality material

Chemical resistance at 20 °C

(Applications can be very dependent on the concentration)

Media	Chemicals	Partially crystalline thermoplastics			Amorphous thermoplastics		Stainless steel		
		PVDF	PE	PP	PVC-U	PVC-C	1.4401 316	1.4301 304	
Oxidizing acids (HNO ₃ , H ₂ CrO ₄ , H ₂ SO ₄ , etc.)	HNO ₃ ≤ 25 %	+	0	0	+	+	0	0	
	25 % ≤ HNO ₃ ≤ 65 %	+	0	-	0	+	0	0	
	H ₂ CrO ₄ aqueous solution	+	0	0	0	0	0	0	
	H ₂ SO ₄ ≤ 70 %	+	+	+	+	+	-	-	
Non oxidizing acids (HCl, HF, etc.)	70 % ≤ H ₂ SO ₄ ≤ 96 %	+	-	-	+	+	-	-	
	HCl ≤ 30 %	+	+	+	+	+	0	-	
	HF ≤ 40 %	+	+	+	+	-	0	-	
Organic (formic acid, acetic acid, citric acid, etc.)	40 % ≤ HF ≤ 75 %	+	+	+	-	-	-	-	
	HCOOH ≤ 25 %	+	+	+	+	+	0	-	
	25 % ≤ HCOOH ≤ tech. pure	+	+	+	+	-	0	-	
	CH ₃ COOH ≤ 50 %	+	+	+	+	+	0	-	
Bases	50 % ≤ CH ₃ COOH ≤ tech. pure	+	+	+	0	-	0	-	
	C ₃ H ₄ OH (COOH) ₃	+	+	+	+	+	0	-	
	Inorganic (NaOH, KOH, etc.)	-	+	+	+	0	+	+	
Salts	Organic (amine, imidazole, etc.)	-	+	+	0	-	0	0	
	NaCl, FeCl ₂ , FeCl ₃ , CaCl ₂ , etc.	+	+	+	+	+	0	0	
Halogens	Chlorine, bromine, iodine, (no fluorine)	0	-	-	0	0	0	-	
	Fuels / oils	Aliphatic hydrocarbons	+	0	0	+	0	+	+
		Aromatic hydrocarbons	+	-	-	-	-	+	+
Chlorinated hydrocarbons		0	-	-	-	-	0	0	
Solvents	Ketones	0	+	+	-	-	+	+	
	Alcohols	+	+	+	0	-	+	+	
	Esters	0	0	0	-	-	+	+	
	Aldehydes	-	+	+	-	-	+	+	
	Phenols	Phenol, Cresol, etc.	+	+	+	-	-	+	-

+ resistant 0 conditionally resistant, please consult us - not resistant

Please note: The above list is only intended as a guideline and does not replace an in-depth review of material suitability for the particular application. The information is based on our experience and is state of the art. These data are general indicators only. In practice, however, other factors such as concentration, pressure and joining technology must also be taken into consideration. The technical data are not binding and are not expressly warranted characteristics of the goods.

Please contact us for help in selecting the right materials.

The smarter way of automation

Automation made easy

A unique system-based approach that bundles and integrates competencies, knowledge, best-in-class resources and technologies

With an innovative product portfolio in the field of measurement, control and actuation devices, GF Piping Systems consistently follows its system approach. The complete solution combines measurement, control and actuation technology together with high quality piping systems and represents a unique form of product and competence bundling. The system-integrated devices that measure values such as temperature, pressure and flow delivering accuracy, productivity, reliability and safety to customers in a wide range of industries. Providing the entire range of automation technology from simple instrument panels to complex measurement installations, GF Piping Systems has not only the product resources and the technical expertise, but also the global service and support infrastructure needed to meet the high customer requirements.



Applications

As Versatile as Your Applications

Leading applications enabled by safe and reliable systems adapted to fit the needs of highly demanding industries

GF Piping Systems develops customized best-in-class solutions, aligned to the specific requirements of our customers in various sectors of industry, enabling profitable operation. With our system knowledge and product expertise, we support our customers during the planning process, the sustainable realization of the projects and provide valuable added services. Expertise in developing and producing piping systems, combined with profound industry and market knowledge, based on longstanding experience, makes GF Piping Systems an uniquely qualified and professional partner for our customers.

Microelectronics

Ultrapure water (UPW) is the lifeblood of semiconductor wet processing. SYGEF Plus system manufactured out of PVDF high purity material added with latest IR welding technology offers an industrial benchmark solution with excellent leach-out values and no rouging.



Chemical process industry

SYGEF is uniquely equipped to provide a broad and versatile solution for the safe conveyance of aggressive chemicals in extreme conditions. The excellent life span for temperatures up to 140°C including UV-resistance even allows outside installation.



Energy

High voltage direct current (HVDC) transmission is used because of its efficiency with less power loss. Through its thermal resistivity SYGEF systems are well suited to conduct the deionized water in cooling systems to dissipate the generated heat. Custom solutions offered by GF Piping Systems.



Water treatment

With noticeably better water balance compared to steel, SYGEF enables the right water quality for any WT application like drinking water, industrial effluent treatment or filling and emptying of tanks which are required in manufacturing and processing plants to store liquid media.



Food & beverage

Lighter and corrosion-resistant compared to stainless steel SYGEF is ideal for the conveyance of food. With FDA conform BCF-welding a smooth and reliable connection is warranted. Maintenance cycles and lifetime are maximized to achieve highest system efficiency.



Pharmaceutical

Down to the lowest pH values the excellent chemical resistance of SYGEF provides a high-quality and cost-effective alternative even to high-performance stainless steel or Titanium alloys. With BCF welding purest water conveyance, minimal microbiological growth and endotoxin risk is ensured.



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SYGEF Standard



SYGEF Standard – System Specification

Material	Polyvinylidene fluoride (PVDF)
Colour	opaque
Density	~1.78 g/cm ³ (ISO 1183 / ASTM D 792)
Surface tension	30–35 mJ/m ²
Thermal expansion coefficient	0.12–0.18 mm/mK (DIN 53752)
E-modulus	≥1700 N/mm ² (EN ISO 527 / ASTM D 790)
Thermal conductivity	0.19 W/mK (EN12664)
Surface resistivity	5 x 10 ¹⁴ Ωcm (IEC 60093)
Dimension	d16 (3/8")–d315 (12") in accordance to ISO 10931
Pressure rating	Pipes/fittings: PN16 (d16–d 315), PN10 (d90–d315) Valves: separate specification
Temperature rating	From –20 °C to +140 °C (-4 °F to +284 °F)
Production	Fittings/valves: injection moulded Pipes: extruded Valves: injection moulded (additional available oil free treated and paint compatible / silicon free)
Surface finish	Inner surface Ra ≤ 0.5 µm (20 µin) for injection moulded and extruded components
Marking	All components are embossed with a permanent identification during the production process to ensure full traceability. Lot No Material Dimension Pressure Rating
Testing and inspection (ISO 10931)	Inclusions Visual inspection Surface finish Dimension tolerance Pressure testing
Approvals/conformance	DIBt ASME BPE FDA CFR 21 177.2510 USP 25 class VI (physiological non-toxic) FM-4910 listing
Welding technology	BCF Plus, bead and crevice free fusion, size d20 (1/2")–d110 (4") IR Plus, infrared fusion (DVS 2207-6), size d20 (1/2")–d315 (12") Butt fusion (DVS 2207-15), size d20 (1/2")–d315 (12") Socket fusion (DVS 2207-15), size d16 (3/8")–d63 (2")
Documentation*	Certificate of Conformance with FDA, USP EN 10204 2.2 EN 10204 3.1
Packing**	Multiple components single bagged in specified bag
Labeling	Brand Name Product Description Code Number Material Dimension
Main applications	Uses include delivery of pharmaceutical grade purified water (PW) and DI water, using hot water, steam chemical or ozone sanitisation. Due to its excellent chemical resistance it is widely used in chemical distribution systems.

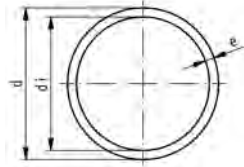
* On request

** Not for socket fusion products

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SYGEF Standard Pipes



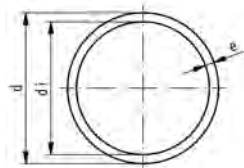
SYGEF Standard pipe SDR33/PN10

Model:

- Material: PVDF
- Length: 5 m units

Inflation surcharges for pipes are possible, they follow the current purchase of materials price.

d (mm)	PN (bar)	FM	Code	Weight (kg/m)	e (mm)	di (mm)
90	10	BCF, IR	175 480 665	1.480	2.8	84.4
110	10	BCF, IR	175 480 666	2.200	3.4	103.2
125	10	IR	175 480 667	2.840	3.9	117.2
140	10	IR	175 480 673	3.520	4.3	131.4
160	10	IR	175 480 668	4.540	4.9	150.2
200	10	IR	175 480 669	7.190	6.2	187.6
225	10	IR	175 480 670	8.950	6.9	211.2
250	10	IR	175 480 671	11.100	7.7	234.6
280	10	IR	175 480 656	13.900	8.6	262.8
315	10	IR	175 480 674	17.600	9.7	295.6



SYGEF Standard pipe SDR21/PN16

Model:

- Material: PVDF
- Length: 5 m units

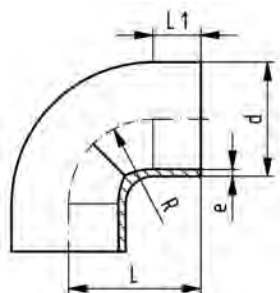
Inflation surcharges for pipes are possible, they follow the current purchase of materials price.

* SYGEF Plus (PVDF-HP)

d (mm)	PN (bar)	FM	Code	Weight (kg/m)	e (mm)	di (mm)
16	16	SF	175 480 202	0.171	1.9	12.2
20	16	BCF, IR	175 480 203	0.210	1.9	16.2
25	16	BCF, IR	175 480 204	0.269	1.9	21.2
32	16	BCF, IR	175 480 205	0.435	2.4	27.2
40	16	BCF, IR	175 480 206	0.563	2.4	35.2
50	16	BCF, IR	175 480 207	0.850	3.0	44.0
63	16	BCF, IR	175 480 208	1.090	3.0	57.0
75	16	BCF, IR	175 480 209	1.550	3.6	67.8
90	16	BCF, IR	175 480 210	2.230	4.3	81.4
110	16	BCF, IR	175 480 211	3.330	5.3	99.4
140	16	IR	175 480 213	5.312	6.7	126.6
160	16	IR	175 480 214	6.961	7.7	144.6
200	16	IR	175 480 216	10.862	9.6	180.8
225	16	IR	175 480 217	13.700	10.8	203.4
*	250	IR	175 481 218	17.150	11.9	226.2
*	280	IR	175 481 219	21.660	13.4	253.2
*	315	IR	175 481 220	27.220	15.0	285.0

SYGEF Standard Fittings

Butt fusion fittings

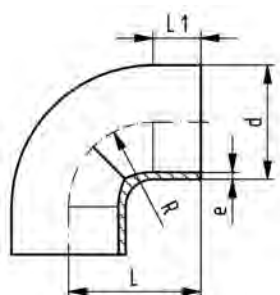


SYGEF Standard bend 90° SDR21/PN16

Model:

- Material: PVDF
- * SYGEF Plus (PVDF-HP)

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)	R (mm)
20	16	BCF, IR	735 018 706	0.016	1.9	38	23	15
25	16	BCF, IR	735 018 707	0.022	1.9	42	23	19
32	16	BCF, IR	735 018 708	0.038	2.4	46	22	24
40	16	BCF, IR	735 018 709	0.055	2.4	51	21	30
50	16	BCF, IR	735 018 710	0.095	3.0	58	21	37
63	16	BCF, IR	735 018 711	0.138	3.0	66	21	45
75	16	BCF, IR	735 018 712	0.243	3.6	75	23	62
90	16	BCF, IR	735 018 713	0.423	4.3	90	23	77
110	16	BCF, IR	735 018 714	0.705	5.3	110	23	98
140	16	IR	735 018 716	1.584	6.7	140	33	121
160	16	IR	735 018 717	2.258	7.7	160	33	141
200	16	IR	735 018 719	3.798	9.6	200	33	181
225	16	IR	735 018 720	5.726	10.8	220	33	200
*	250	IR	735 018 746	6.536	11.9	254	48	232
*	280	IR	735 018 747	9.182	13.4	283	48	262
*	315	IR	735 018 748	13.031	15.0	321	48	297



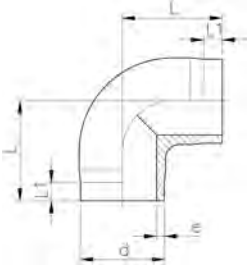
SYGEF Standard bend 90° SDR33/PN10

Model:

- Material: PVDF
- * SYGEF Plus (PVDF-HP)

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)	R (mm)
90	10	BCF, IR	735 018 513	0.332	2.8	90	23	77
110	10	BCF, IR	735 018 514	0.575	3.4	110	23	98
125	10	IR	735 018 515	0.773	3.9	125	28	112
140	10	IR	735 018 516	1.109	4.3	140	33	121
160	10	IR	735 018 517	1.540	4.9	160	33	141
200	10	IR	735 018 519	2.018	6.2	200	33	181
225	10	IR	735 018 520	3.952	6.9	220	33	200
*	250	IR	735 018 546	4.304	7.7	254	48	232
*	280	IR	735 018 547	6.370	8.6	283	48	262
*	315	IR	735 018 548	9.032	9.7	321	48	297

SYGEF Standard elbow 90° SDR21/PN16



Model:

- Material: PVDF

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
20	16	BCF, IR	735 108 606	0.017	1.9	38	25
25	16	BCF, IR	735 108 607	0.026	1.9	42	26
32	16	BCF, IR	735 108 608	0.043	2.4	46	26
40	16	BCF, IR	735 108 609	0.062	2.4	51	28
50	16	BCF, IR	735 108 610	0.107	3.0	58	28
63	16	BCF, IR	735 108 611	0.188	3.0	66	28

SYGEF Standard elbow 45° SDR21/PN16



Model:

- Material: PVDF
- * SYGEF Plus (PVDF-HP)

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
20	16	BCF, IR	735 158 606	0.014	1.9	32	25
25	16	BCF, IR	735 158 607	0.019	1.9	34	26
32	16	BCF, IR	735 158 608	0.033	2.4	36	26
40	16	BCF, IR	735 158 609	0.042	2.4	39	28
50	16	BCF, IR	735 158 610	0.084	3.0	42	30
63	16	BCF, IR	735 158 611	0.121	3.0	47	31
75	16	BCF, IR	735 158 612	0.160	3.6	49	32
90	16	BCF, IR	735 158 613	0.271	4.3	57	37
110	16	BCF, IR	735 158 614	0.499	5.3	70	46
140	16	IR	735 158 616	1.000	6.7	88	57
160	16	IR	735 158 617	1.470	7.7	100	62
200	16	IR	735 158 619	2.800	9.6	124	77
225	16	IR	735 158 620	4.000	10.8	140	88
*	250	IR	735 158 646	3.669	11.9	120	47
*	280	IR	735 158 647	5.099	13.4	133	47
*	315	IR	735 158 648	7.162	15.0	147	47

SYGEF Standard elbow 45° SDR33/PN10



Model:

- Material: PVDF
- * SYGEF Plus (PVDF-HP)



d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
90	10	BCF, IR	735 158 513	0.200	2.8	57	37
110	10	BCF, IR	735 158 514	0.348	3.4	70	46
125	10	IR	735 158 515	0.490	3.9	79	51
140	10	IR	735 158 516	0.712	4.3	88	57
160	10	IR	735 158 517	0.986	4.9	100	62
200	10	IR	735 158 519	1.928	6.2	124	77
225	10	IR	735 158 520	2.732	6.9	140	88
*	250	IR	735 158 546	2.402	7.7	120	47
*	280	IR	735 158 547	3.518	8.6	133	47
*	315	IR	735 158 548	4.923	9.7	147	47

SYGEF Standard T 90° equal SDR21/PN16



Model:

- Material: PVDF
- * SYGEF Plus (PVDF-HP)



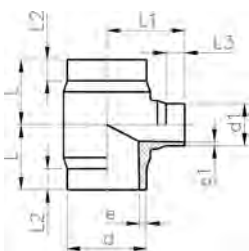
d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
20	16	BCF, IR	735 208 606	0.025	1.9	38	25
25	16	BCF, IR	735 208 607	0.033	1.9	42	27
32	16	BCF, IR	735 208 608	0.058	2.4	46	27
40	16	BCF, IR	735 208 609	0.083	2.4	51	28
50	16	BCF, IR	735 208 610	0.146	3.0	58	28
63	16	BCF, IR	735 208 611	0.254	3.0	66	28
75	16	BCF, IR	735 208 612	0.346	3.6	75	32
90	16	BCF, IR	735 208 613	0.600	4.3	90	39
110	16	BCF, IR	735 208 614	1.067	5.3	110	48
140	16	IR	735 208 616	2.600	6.7	140	62
160	16	IR	735 208 617	3.500	7.7	160	71
200	16	IR	735 208 619	6.725	9.6	200	80
225	16	IR	735 208 620	8.986	10.8	220	86
*	250	IR	735 208 646	10.823	11.9	223	70
*	280	IR	735 208 647	16.061	13.4	256	74
*	315	IR	735 208 648	21.422	15.0	274	74

SYGEF Standard T 90° reduced SDR21/PN16



Model:

- Material: PVDF



d - d1 (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L1 (mm)	L2 (mm)	L (mm)	L3 (mm)
160 - 90	16	IR	735 208 662	3.200	7.7	4.3	130	60	155	25
160 - 110	16	IR	735 208 661	3.300	7.7	5.3	130	60	155	25
225 - 90	16	IR	735 208 670	6.000	10.8	4.3	160	60	155	25
225 - 110	16	IR	735 208 669	6.100	10.8	5.3	160	60	155	25

SYGEF Standard T 90° equal SDR33/PN10



Model:

- Material: PVDF
- * SYGEF Plus (PVDF-HP)



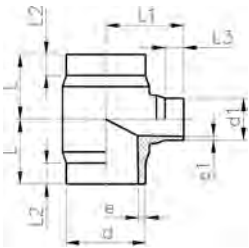
d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
90	10	BCF, IR	735 208 513	0.433	2.8	90	39
110	10	BCF, IR	735 208 514	0.766	3.4	110	48
125	10	IR	735 208 515	1.280	3.9	125	56
140	10	IR	735 208 516	1.554	4.3	140	62
160	10	IR	735 208 517	2.293	4.9	160	71
200	10	IR	735 208 519	4.297	6.2	200	80
225	10	IR	735 208 520	6.900	6.9	220	86
*	250	IR	735 208 546	6.939	7.7	223	70
*	280	IR	735 208 547	10.475	8.6	256	74
*	315	IR	735 208 548	13.882	9.7	274	74

SYGEF Standard T 90° reduced SDR33/PN10



Model:

- Material: PVDF



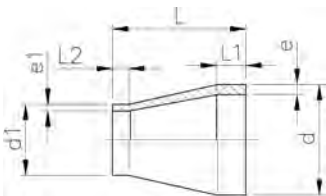
d - d1 (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
160 - 90	10	IR	735 208 562	2.300	4.9	4.3	155	130	60	25
160 - 110	10	IR	735 208 561	2.300	4.9	5.3	155	130	60	25
225 - 90	10	IR	735 208 570	4.400	6.9	4.3	155	160	60	25
225 - 110	10	IR	735 208 569	4.286	6.9	5.3	155	160	60	25
225 - 160	10	IR	735 208 568	4.239	6.9	4.9	155	170	60	35

SYGEF Standard reducer SDR21/PN16



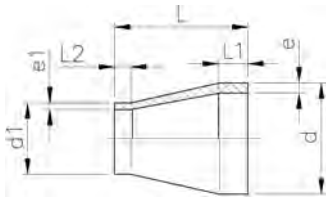
Model:

- Material: PVDF



d - d1 (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)
25 - 20	16	BCF, IR	735 908 637	0.013	1.9	1.9	50	22	22
32 - 20	16	BCF, IR	735 908 642	0.019	2.4	1.9	50	22	22
32 - 25	16	BCF, IR	735 908 641	0.019	2.4	1.9	50	22	22
40 - 20	16	BCF, IR	735 908 648	0.025	2.4	1.9	58	22	24
40 - 25	16	BCF, IR	735 908 647	0.025	2.4	1.9	55	22	24
40 - 32	16	BCF, IR	735 908 646	0.028	2.4	2.4	55	22	24
50 - 25	16	BCF, IR	735 908 654	0.040	3.0	1.9	60	22	25
50 - 32	16	BCF, IR	735 908 653	0.043	3.0	2.4	60	22	25
50 - 40	16	BCF, IR	735 908 652	0.046	3.0	2.4	60	22	25
63 - 32	16	BCF, IR	735 908 660	0.059	3.0	2.4	65	22	25
63 - 40	16	BCF, IR	735 908 659	0.062	3.0	2.4	65	22	25
63 - 50	16	BCF, IR	735 908 658	0.070	3.0	3.0	65	22	25
75 - 40	16	BCF, IR	735 908 666	0.086	3.6	2.4	68	24	25
75 - 50	16	BCF, IR	735 908 665	0.091	3.6	3.0	65	24	25
75 - 63	16	BCF, IR	735 908 664	0.095	3.6	3.0	65	24	25
90 - 63	16	BCF, IR	735 908 671	0.138	4.3	3.0	75	25	30
90 - 75	16	BCF, IR	735 908 670	0.153	4.3	3.6	75	25	35
110 - 63	16	BCF, IR	735 908 678	0.257	5.3	3.0	90	30	30
110 - 75	16	BCF, IR	735 908 677	0.213	5.3	3.6	90	30	35

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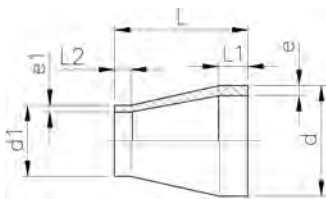
d - d1 (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)
110 - 90	16	BCF, IR	735 908 676	0.265	5.3	4.3	90	30	35
140 - 110	16	IR	735 908 685	0.450	6.7	5.3	110	40	40
160 - 110	16	IR	735 908 690	0.650	7.7	5.3	160	40	40
160 - 140	16	IR	735 908 688	0.450	7.7	6.7	120	40	40
200 - 160	16	IR	735 908 692	1.340	9.6	7.7	120	40	35
225 - 110	16	IR	735 908 695	1.540	10.8	5.3	160	50	40
225 - 160	16	IR	735 908 696	1.730	10.8	7.7	160	50	40
225 - 200	16	IR	735 908 697	1.980	10.8	9.6	160	55	50

SYGEF Standard reducer SDR33/PN10



Model:

- Material: PVDF



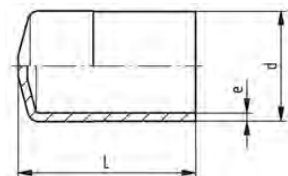
d - d1 (mm)	FM	PN (bar)	SDR	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)
90 - 63	BCF, IR	10	33 - 21	735 908 551	0.124	2.8	3.0	75	25	30
110 - 63	BCF, IR	10	33 - 21	735 908 553	0.196	3.4	3.0	90	30	30
110 - 90	BCF, IR	10	33 - 33	735 908 555	0.179	3.4	2.8	90	30	35
125 - 110	IR	10	33 - 21	735 908 580	0.270	3.9	5.3	100	35	40
140 - 110	IR	10	33 - 21	735 908 585	0.385	4.3	5.3	110	40	40
140 - 125	IR	10	33 - 33	735 908 584	0.340	4.3	3.9	110	40	40
160 - 110	IR	10	33 - 33	735 908 561	0.480	4.9	3.4	120	40	40
160 - 110	IR	10	33 - 21	735 908 590	0.573	4.9	5.3	120	40	40
160 - 140	IR	10	33 - 33	735 908 588	0.568	4.9	4.3	120	40	40
200 - 160	IR	10	33 - 33	735 908 592	0.830	6.2	4.9	145	50	40
225 - 110	IR	10	33 - 33	735 908 566	1.120	6.9	3.4	160	55	35
225 - 110	IR	10	33 - 21	735 908 595	0.940	6.9	5.3	160	55	35
225 - 160	IR	10	33 - 33	735 908 596	1.140	6.9	4.9	160	55	40
225 - 200	IR	10	33 - 33	735 908 597	1.200	6.9	6.2	160	55	50

SYGEF Standard end cap SDR21/PN16

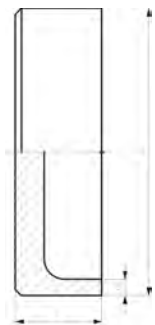


Model:

- Material: PVDF
- Type A: injection molded
- Type B: machined, incl. facing mark (must not be exceeded)



Type A



Type B

d (mm)	PN (bar)	FM	Code	L (mm)	e (mm)	Type
20	16	BCF, IR	735 968 006	47	1.9	A
25	16	BCF, IR	735 968 007	47	1.9	A
32	16	BCF, IR	735 968 008	52	2.4	A
40	16	IR	735 968 309	30	2.4	B
50	16	IR	735 968 310	30	3.0	B
63	16	IR	735 968 311	30	3.0	B
75	16	IR	735 968 312	30	3.6	B
90	16	IR	735 968 313	30	4.3	B
110	16	IR	735 968 314	45	5.3	B
140	16	IR	735 968 316	45	6.7	B
160	16	IR	735 968 317	46	7.7	B
200	16	IR	735 968 319	54	9.6	B
225	16	IR	735 968 320	57	10.8	B



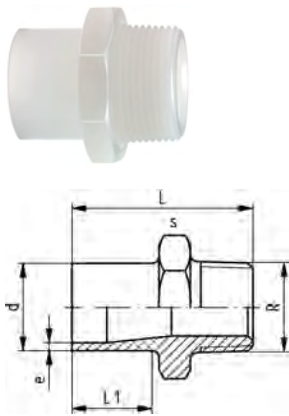
SYGEF Standard end cap SDR33/PN10

Model:

- Material: PVDF
- Machined version, incl. facing mark (must not be exceeded)

d (mm)	PN (bar)	FM	Code	L (mm)	e (mm)
90	10	IR	735 968 213	30	2.8
110	10	IR	735 968 214	45	3.4
125	10	IR	735 968 215	45	3.9
140	10	IR	735 968 216	45	4.3
160	10	IR	735 968 217	46	4.9
200	10	IR	735 968 219	54	6.2
225	10	IR	735 968 220	57	6.9

Transition fittings butt fusion

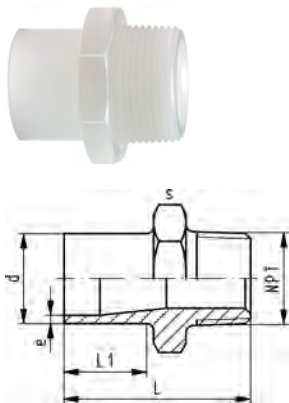


SYGEF Standard adaptor nipple male thread R SDR21/PN16

Model:

- Avoid stresses when installing and large changes in temperature
- Material: PVDF
- With butt fusion spigot and BSP tapered male thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF

d (mm)	R (inch)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	s (mm)	L1 (mm)
20	¾	16	BCF, IR	735 910 555	0.024	1.9	50	32	26
20	½	16	BCF, IR	735 910 556	0.025	1.9	53	32	26
25	¾	16	BCF, IR	735 910 557	0.035	1.9	55	36	26
32	1	16	BCF, IR	735 910 558	0.054	2.4	57	46	26
40	1 ¼	16	BCF, IR	735 910 559	0.076	2.4	60	55	26
50	1 ½	16	BCF, IR	735 910 560	0.123	3.0	63	65	26
63	2	16	BCF, IR	735 910 561	0.166	3.0	69	75	27



SYGEF Standard adaptor nipple male thread NPT SDR21/PN16

Model:

- Material: PVDF
- With butt fusion spigot and tapered male thread
- Avoid stresses when installing and large changes in temperature
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF

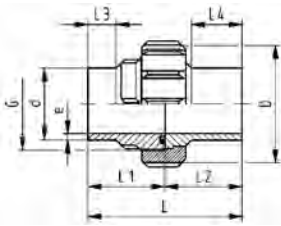
d (mm)	NPT (inch)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	s (mm)	L1 (mm)
20	¾	16	BCF, IR	735 914 555	0.024	1.9	50	32	26
20	½	16	BCF, IR	735 914 556	0.025	1.9	53	32	26
25	¾	16	BCF, IR	735 914 557	0.035	1.9	55	36	26
32	1	16	BCF, IR	735 914 558	0.053	2.4	57	46	26
40	1 ¼	16	BCF, IR	735 914 559	0.075	2.4	60	55	26
50	1 ½	16	BCF, IR	735 914 560	0.122	3.0	63	65	26
63	2	16	BCF, IR	735 914 561	0.176	3.0	69	75	27



SYGEF Standard union (FKM black) SDR21/PN16

Model:

- Material: PVDF
- d75, d90 and d100 with buttress shaped thread



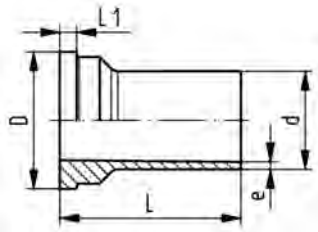
d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	e (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	G (inch)
20	16	735 528 606	0.068	43	1.9	106	53	53	25	37	1
25	16	735 528 607	0.104	53	1.9	112	56	56	25	38	1 1/4
32	16	735 528 608	0.147	60	2.4	118	59	59	25	40	1 1/2
40	16	735 528 609	0.223	74	2.4	124	62	62	25	41	2
50	16	735 528 610	0.294	82	3.0	130	65	65	25	43	2 1/4
63	16	735 528 611	0.449	100	3.0	136	68	68	25	44	2 3/4
75	16	735 528 612	0.740	133	3.6	132	66	66	24	34	S107.5x3.6
90	16	735 528 613	0.773	133	4.3	130	65	65	24	48	S107.5x3.6
110	16	735 528 614	1.054	155	5.3	130	65	65	25	45	S127.5x3.6



SYGEF Standard union end SDR21/PN16

Model:

- Material: PVDF
- Suitable for SYGEF Standard Union Butt Fusion



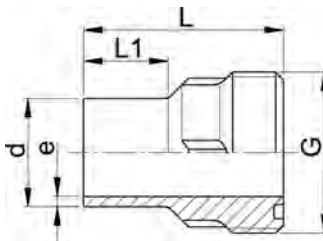
d (mm)	PN (bar)	FM	Code	Weight (kg)	D (mm)	e (mm)	L (mm)	L1 (mm)
20	16	BCF, IR	735 608 606	0.020	30	1.9	53	5
25	16	BCF, IR	735 608 607	0.030	39	1.9	56	5
32	16	BCF, IR	735 608 608	0.044	45	2.4	59	6
40	16	BCF, IR	735 608 609	0.069	57	2.4	62	6
50	16	BCF, IR	735 608 610	0.083	63	3.0	65	7
63	16	BCF, IR	735 608 611	0.130	78	3.0	68	8
75	16	BCF, IR	735 608 612	0.209	101	3.6	66	9
90	16	BCF, IR	735 608 613	0.187	101	4.3	65	9
110	16	BCF, IR	735 608 614	0.263	121	5.3	65	10



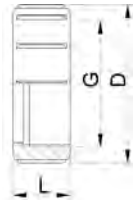
SYGEF Standard union bush PN16

Model:

- Material: PVDF
- Suitable for SYGEF Standard Union Butt Fusion
- d75, d90 and d100 with buttress shaped thread



d (mm)	FM	Code	Weight (kg)	G (inch)	e (mm)	L (mm)	L1 (mm)
20	BCF, IR	735 648 606	0.025	1	1.9	53	25
25	BCF, IR	735 648 607	0.039	1 1/4	1.9	56	25
32	BCF, IR	735 648 608	0.055	1 1/2	2.4	59	25
40	BCF, IR	735 648 609	0.081	2	2.4	62	25
50	BCF, IR	735 648 610	0.110	2 1/4	3.0	65	25
63	BCF, IR	735 648 611	0.158	2 3/4	3.0	68	25
75	BCF, IR	735 648 612	0.277	S 107.5 x 3.6	3.6	66	24
90	BCF, IR	735 648 613	0.275	S 107.5 x 3.6	4.3	65	24
110	BCF, IR	735 648 614	0.343	S 127.5 x 3.6	5.3	65	25



SYGEF Standard union nut PN16

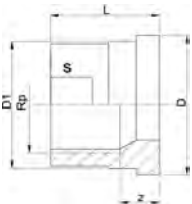
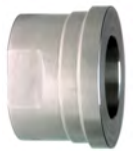
Model:

- Material: PVDF
- d75, d90 and d100 with buttress shaped thread

Note:

For the dimensions d75-110 please see instructions for the installation

Socket Fusion d (mm)	Butt Fusion d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	G (inch)	L (mm)
16	16	16	735 690 405	0.011	35	3/4	21
20	20	16	735 690 406	0.021	43	1	22
25	25	16	735 690 407	0.030	53	1 1/4	24
32	32	16	735 690 408	0.035	60	1 1/2	26
40	40	16	735 690 409	0.065	74	2	29
50	50	16	735 690 410	0.093	82	2 1/4	33
63	63	16	735 690 411	0.144	100	2 3/4	35
	75 - 90	16	735 690 422	0.289	133		40
	110	16	735 690 423	0.403	155		42

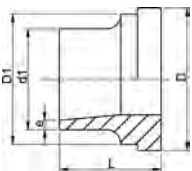


Union end stainless steel Rp

Model:

- Material: stainless steel 1.4404 (316L)
- Parallel female thread Rp

d (mm)	Rp (inch)	PN (bar)	Code	Weight (kg)	z (mm)	D (mm)	D1 (mm)	L (mm)	s (mm)
16	3/8	16	724 600 655	0.030	9	24	22	19	19
20	1/2	16	724 600 656	0.060	11	30	28	24	24
25	3/4	16	724 600 657	0.092	11	39	36	26	29
32	1	16	724 600 658	0.137	12	45	42	29	36
40	1 1/4	16	724 600 659	0.226	14	57	53	33	45
50	1 1/2	16	724 600 660	0.314	15	63	59	34	54
63	2	16	724 600 661	0.438	15	78	74	39	63

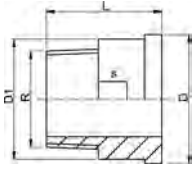


Union end stainless steel Welding end

Model:

- Material: stainless steel 1.4404 (316L)

d1 (mm)	d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	L (mm)	e (mm)
17	16	16	724 605 505	0.029	24	22	18	1.6
21	20	16	724 605 506	0.046	30	28	22	2.0
26	25	16	724 605 507	0.080	39	36	23	2.0
33	32	16	724 605 508	0.112	45	42	26	2.0
42	40	16	724 605 509	0.188	57	53	26	2.0
48	50	16	724 605 510	0.222	63	59	28	2.0
60	63	16	724 605 511	0.361	78	74	32	2.6

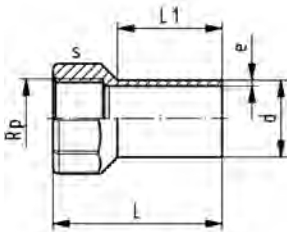


Union end stainless steel R

Model:

- Material: stainless steel 1.4404 (316L)
- Taper male thread R

d (mm)	R (inch)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	L (mm)	s (mm)
16	3/8	16	724 600 705	0.052	24	22	30	19
20	1/2	16	724 600 706	0.083	30	28	34	24
25	3/4	16	724 600 707	0.125	39	36	36	32
32	1	16	724 600 708	0.189	45	42	40	37
40	1 1/4	16	724 600 709	0.356	57	53	46	48
50	1 1/2	16	724 600 710	0.407	63	59	48	54
63	2	16	724 600 711	0.668	78	74	55	69



SYGEF Standard adaptor socket female Rp SDR21/PN16

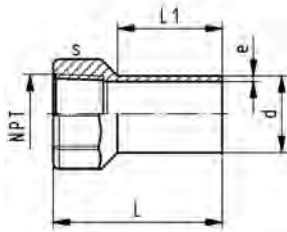
Model:

- Material: PVDF
- With butt fusion spigot and parallel female thread Rp
- Avoid stresses when installing and large changes in temperature
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF

Note:

* Please keep strictly to the GF internal installation preferences

d (mm)	Rp (inch)	PN (bar)	FM	Code	SP	Weight (kg)	e (mm)	L (mm)	s (mm)	L1 (mm)
20	3/8	16	BCF, IR	735 910 585	1	0.030	1.9	54	32	30
20	1/2	16	BCF, IR	735 910 586	1	0.026	1.9	54	32	30
25	3/4	16	BCF, IR	735 910 587	1	0.032	1.9	58	38	30
32	1	16	BCF, IR	735 910 588	1	0.065	2.4	63	48	30
40	1 1/4	16	BCF, IR	735 910 589	1	0.092	2.4	67	58	30
50	1 1/2	16	BCF, IR	735 910 590	1	0.108	3.0	67	65	30
*	63	2	BCF, IR	735 910 591	1	0.195	3.0	73	80	30



SYGEF Standard adaptor socket female NPT SDR21/PN16

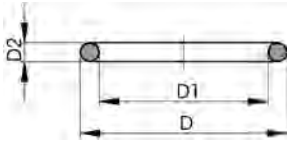
Model:

- Material: PVDF
- With butt fusion spigot and taper female thread NPT
- Avoid stresses when installing and large changes in temperature
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF

Note:

* Please keep strictly to the GF internal installation preferences

d (mm)	NPT (inch)	PN (bar)	FM	Code	SP	Weight (kg)	e (mm)	L (mm)	s (mm)	L1 (mm)
20	3/8	16	BCF, IR	735 914 585		0.029	1.9	54	32	30
20	1/2	16	BCF, IR	735 914 586		0.027	1.9	54	32	30
25	3/4	16	BCF, IR	735 914 587		0.033	1.9	58	38	30
32	1	16	BCF, IR	735 914 588		0.066	2.4	63	48	30
40	1 1/4	16	BCF, IR	735 914 589		0.085	2.4	67	58	30
50	1 1/2	16	BCF, IR	735 914 590		0.108	3.0	67	65	30
*	63	2	BCF, IR	735 914 591		0.190	3.0	73	80	30

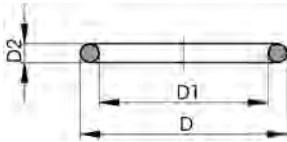


O-Ring Gaskets

Model:

- For unions and adaptor unions
- Hardness approx. 75° shore
- FFKM minimum temperature -20°C

d (mm)	DN (mm)	FFKM Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)
20	15	700 245 481	0.002	27	20	3.53
25	20	700 245 482	0.002	35	28	3.53
32	25	700 245 483	0.002	40	33	3.53
40	32	700 245 484	0.006	51	41	5.33
50	40	700 245 485	0.007	58	47	5.33
63	50	700 245 486	0.010	70	60	5.33

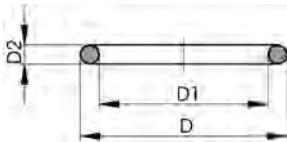


O-ring black

Model:

- Hardness approx. 65° Shore
- FKM minimum temperature -15°C

d (mm)	DN (mm)	FKM Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)
16	10	749 410 005	0.002	21	16	2.62
20	15	749 410 006	0.002	27	20	3.53
25	20	749 410 007	0.002	35	28	3.53
32	25	749 410 008	0.002	40	33	3.53
40	32	749 410 009	0.007	51	41	5.34
50	40	749 410 010	0.060	58	47	5.34
63	50	749 410 011	0.003	70	60	5.34

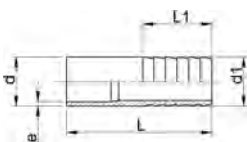


O-ring black d75 - d110

Model:

- Hardness approx. 65° Shore
- FKM minimum temperature -15°C

d-d (mm)	DN (mm)	Code	SP	GP	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	closest inch (inch)
75	50	749 410 013	100	600	0.011	80	69	5.34	2
75 - 90	65	749 410 014	100	600	0.012	93	82	5.34	2 1/2
90 - 110	80	749 410 015	100	600	0.015	112	101	5.34	3



SYGEF Standard hose adaptor SDR21/PN16

Model:

- Material: PVDF

d - d1 (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
20 - 20	16	BCF, IR	735 968 606	0.015	1.9	64	27
25 - 25	16	BCF, IR	735 968 607	0.027	1.9	75	36
32 - 32	16	BCF, IR	735 968 608	0.042	2.4	82	36
40 - 40	16	BCF, IR	735 968 609	0.063	2.4	84	42
50 - 50	16	BCF, IR	735 968 610	0.084	3.0	90	48
63 - 60	16	BCF, IR	735 968 611	0.118	3.0	100	50

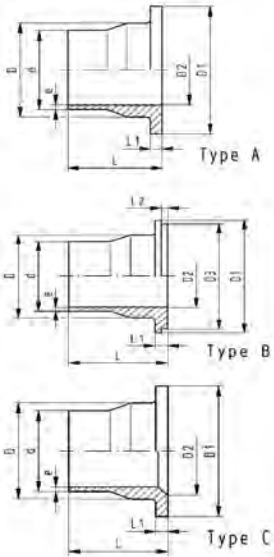
Flange Adaptors, Flanges and Gaskets for Butt Fusion



SYGEF Standard flange adaptor Jointing face serrated SDR21/PN16

Model:

- Material: PVDF
- * SYGEF Plus (PVDF-HP)



d (mm)	DN (mm)	PN (bar)	FM	Code	Weight (kg)
20	15	16	BCF, IR	735 798 806	0.029
25	20	16	BCF, IR	735 798 807	0.046
32	25	16	BCF, IR	735 798 808	0.070
40	32	16	BCF, IR	735 798 809	0.096
50	40	16	BCF, IR	735 798 810	0.136
63	50	16	BCF, IR	735 798 811	0.198
75	65	16	BCF, IR	735 798 812	0.311
90	80	16	BCF, IR	735 798 813	0.394
110	100	16	BCF, IR	735 798 814	0.554
140	125	16	IR	735 798 816	0.861
160	150	16	IR	735 798 817	1.200
200	200	16	IR	735 798 819	1.900
225	200	16	IR	735 798 820	2.000
*	250	250	IR	735 798 846	3.658
*	280	250	IR	735 798 847	3.586
*	315	300	IR	735 798 848	5.028

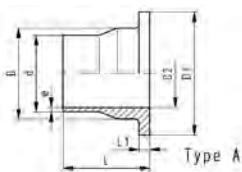
d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	Type
20	26	45	15		54	6		1.9	A
25	32	58	20	54	56	7	4	1.9	B
32	40	68	26	63	58	7	4	2.4	B
40	49	78	34	73	68	8	4	2.4	B
50	60	88	43	82	69	8	4	3.0	B
63	75	102	56		72	9		3.0	A
75	89	122	66		80	10		3.6	A
90	105	138	78	133	81	12	4	4.3	B
110	125	158	100		81	13		5.3	C
140	155	188	127		90	16		6.7	C
160	175	212	151		93	17		7.7	C
200	232	268	207		102	22		9.6	C
225	235	268	207		102	22		10.8	C
*	250	285	320	249	122	25		11.9	C
*	280	291	320	249	122	25		13.4	C
*	315	335	370	300	124	28		15.0	C



SYGEF Standard flange adaptor ANSI Jointing face serrated SDR21/PN16

Model:

- Material: PVDF
- Other dimensions identical with metric version



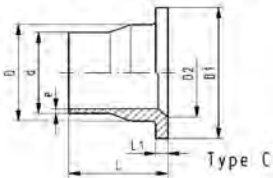
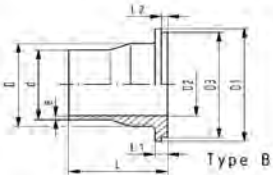
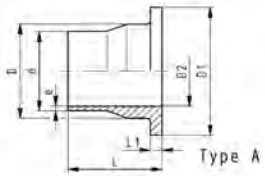
d (inch)	d (mm)	PN (bar)	FM	Code	Weight (kg)	L1 (mm)	D2 (mm)	D1 (mm)	L (mm)	D (mm)	e (mm)	Type
¾	25	16	BCF, IR	735 798 857	0.044	7	20	54	56	32	1.9	A
1	32	16	BCF, IR	735 798 858	0.063	7	26	63	58	40	2.4	A
1 ¼	40	16	BCF, IR	735 798 859	0.089	8	34	73	68	49	2.4	A
1 ½	50	16	BCF, IR	735 798 860	0.140	8	43	82	69	60	3.0	A
3	90	16	BCF, IR	735 798 861	0.374	12	78	133	81	105	4.3	A



SYGEF Standard flange adaptor Joining face serrated SDR33/PN10

Model:

- Material: PVDF
- * SYGEF Plus (PVDF-HP)



	d (mm)	DN (mm)	PN (bar)	FM	Code	Weight (kg)
	90	80	10	BCF, IR	735 798 863	0.370
	110	100	10	BCF, IR	735 798 864	0.493
	125	100	10	IR	735 798 565	0.453
	140	125	10	IR	735 798 866	0.739
	160	150	10	IR	735 798 867	0.927
	200	200	10	IR	735 798 869	1.797
	225	200	10	IR	735 798 870	1.687
*	250	250	10	IR	735 798 596	2.730
*	280	250	10	IR	735 798 597	2.715
*	315	300	10	IR	735 798 598	3.657

	d (mm)	e (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	L (mm)	L1 (mm)	L2 (mm)	Type
	90	2.8	105	138	78	133	81	12	4	B
	110	3.4	125	158	100		81	13		A
	125	3.9	132	158	114		82	14		A
	140	4.3	155	188	127		90	16		A
	160	4.9	175	212	151		93	17		C
	200	6.2	232	268	207		102	22		C
	225	6.9	235	268	207		102	22		A
*	250	7.7	285	320	249		120	22		C
*	280	8.6	291	320	249		120	22		A
*	315	9.7	335	370	300		120	22		C



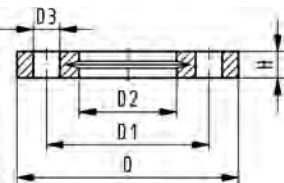
Backing flange PP-V metric For butt fusion systems metric

Model:

- Full-plastic flange PP-GF (30 % glass-fibre reinforced)
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

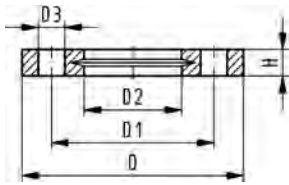
AL: number of holes

- ¹⁾ Suitable for socket- and butt fusion systems
²⁾ Combined version, metric-ANSI



	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H max. (mm)	AL	SC
1	20	15	16	727 700 406	0.093	95	65	28	14	16	4	M12
1	25	20	16	727 700 407	0.120	105	75	34	14	17	4	M12
1	32	25	16	727 700 408	0.151	115	85	42	14	18	4	M12
1	40	32	16	727 700 409	0.244	140	100	51	18	20	4	M16
1	50	40	16	727 700 410	0.297	150	110	62	18	22	4	M16
1	63	50	16	727 700 411	0.362	165	125	78	18	24	4	M16
1	75	65	16	727 700 412	0.487	185	145	92	18	26	4	M16
	90	80	16	727 700 513	0.544	200	160	108	18	27	8	M16
	110	100	16	727 700 514	0.643	220	180	128	18	28	8	M16
	125	100	16	727 700 515	0.635	220	180	135	18	28	8	M16
	140	125	16	727 700 516	0.842	250	210	158	18	30	8	M16
2	160	150	16	727 700 517	1.200	285	240	178	22	32	8	M20
	180	150	16	727 700 518	1.200	285	240	188	22	32	8	M20
2	200	200	16	727 700 519	1.400	340	295	235	22	34	8	M20
2	225	200	16	727 700 520	1.400	340	295	238	22	34	8	M20
	250	250	10	727 700 521	2.052	395	350	288	22	38	12	M20

table continued on the next page



d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H max. (mm)	AL	SC
280	250	10	727 700 522	1.700	395	350	294	22	38	12	M20
315	300	10	727 700 523	2.400	445	400	338	22	42	12	M20
355	350	10	727 700 524	4.440	515	460	376	22	46	16	M20
400	400	10	727 700 525	5.624	574	515	430	26	50	16	M24

Backing flange PP-V Inch ANSI For socket systems metric and BS

Model:

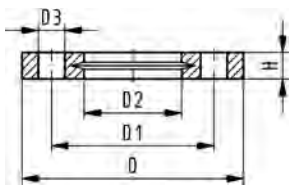
- Full-plastic flange PP-GF (30 % glass-fibre reinforced)
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- Special flange adapter ANSI for d25 - d50 and d90 required

AL: number of holes

¹⁾ Suitable for socket- and butt fusion systems

²⁾ Not for BS

³⁾ Combined version, metric - ANSI



Size (inch)	DN (mm)	d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H max. (mm)	AL	SC	
1	½	15	20	16	727 701 406	0.091	95	60	28	16	4	M12	
1	¾	20	25	16	727 701 407	0.120	105	70	34	16	4	M12	
1	1	25	32	16	727 701 408	0.147	115	79	42	16	4	M12	
1	1 ¼	32	40	16	727 701 409	0.246	140	89	51	16	4	M16	
1	1 ½	40	50	16	727 701 410	0.299	150	98	62	16	4	M16	
1	2	50	63	16	727 701 411	0.361	165	121	78	19	4	M16	
1	2 ½	65	75	16	727 701 412	0.492	185	140	92	19	4	M16	
	3	80	90	16	727 701 413	0.605	200	152	110	19	4	M16	
2	4	100	110	16	727 701 414	0.704	229	190	133	19	8	M16	
2/3	6	150	160	16	727 700 417	1.050	285	240	190	22	8	M20	
3	8	200	200	16	727 700 419	1.629	340	295	226	22	34	8	M20
3	8	200	225	16	727 700 420	1.400	340	295	250	22	34	8	M20
	10	250	280	10	727 701 422	1.838	406	362	310	26	38	12	M20
	12	300	315	10	727 701 423	3.482	483	432	348	26	42	12	M20

Backing flange PP-Steel metric For butt fusion systems metric

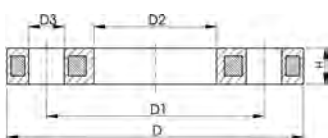
Model:

- Material: PP (30% glass-fibre reinforced) with steel ring
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes

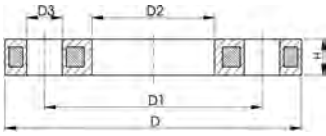
¹⁾ Suitable for socket -and butt fusion systems

²⁾ Combined version, bolt circle metric - ANSI



d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H max. (mm)	AL	SC	
1	20	15	16	727 700 206	0.216	95	65	28	14	12	4	M12
1	25	20	16	727 700 207	0.279	105	75	34	14	12	4	M12
1	32	25	16	727 700 208	0.429	115	85	42	14	16	4	M12
1	40	32	16	727 700 209	0.621	140	100	51	18	16	4	M16
1	50	40	16	727 700 210	0.722	150	110	62	18	20	4	M16
1	63	50	16	727 700 211	0.900	165	125	78	18	20	4	M16
1	75	65	16	727 700 212	1.110	185	145	92	18	20	4	M16
	90	80	16	727 700 313	1.390	200	160	108	18	20	8	M16
	110	100	16	727 700 314	1.407	220	180	128	18	20	8	M16
	125	100	16	727 700 315	1.408	220	180	135	18	20	8	M16
	140	125	16	727 700 716	2.318	250	210	158	18	26	8	M16
2	160	150	16	727 700 717	3.491	285	240	178	22	26	8	M20
	180	150	16	727 700 718	3.108	285	240	188	22	26	8	M20

table continued on the next page



	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H max. (mm)	AL	SC
	200	200	16	727 700 719	5.600	340	295	235	22	29	8	M20
	225	200	16	727 700 720	5.533	340	295	238	22	29	8	M20
	250	250	16	727 700 721	6.632	395	350	288	22	32	12	M20
	280	250	16	727 700 722	6.573	395	350	294	22	32	12	M20
	315	300	16	727 700 723	7.903	445	400	338	22	36	12	M20
	355	350	16	727 700 724	14.587	515	460	376	23	42	16	M20
	400	400	16	727 700 725	20.034	574	515	430	26	42	16	M24



Backing flange PP-Steel Inch/ANSI For butt fusion systems metric

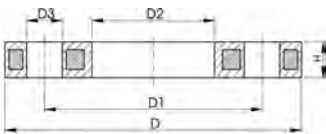
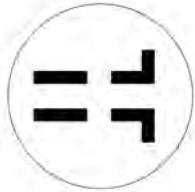
Model:

- Material: PP (30% glass-fibre reinforced) with steel ring
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- Special flange adapter ANSI for d25 - d50 and d90 required

¹⁾ Suitable for socket -and butt fusion systems

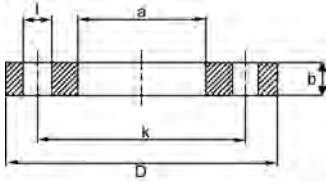
²⁾ Combined version, bolt circle metric - ANSI

AL: number of holes



	d (inch)	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)
1	½	20	15	16	727 701 206	0.213
1	¾	25	20	16	727 701 207	0.260
1	1	32	25	16	727 701 208	0.416
1	1 ¼	40	32	16	727 701 209	0.730
1	1 ½	50	40	16	727 701 210	0.809
1	2	63	50	16	727 701 211	0.866
1	2 ½	75	65	16	727 701 212	1.117
	3	90	80	16	727 701 313	1.499
	4	110	100	16	727 701 314	1.739
2	6	160	150	16	727 700 717	3.491
2	8	200	200	16	727 700 719	5.600
2	8	225	200	16	727 700 720	5.533
	10	250/280	250	10	727 701 321	6.000
	12	315	300	10	727 701 322	11.800
	14	355	350	10	727 701 323	17.900
	16	400	400	10	727 701 324	24.500
	20	450/500	500	10	727 701 325	33.600

	d (inch)	d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H max. (mm)	AL	SC
1	½	20	95	60	28	16	12	4	M12
1	¾	25	105	70	34	16	12	4	M12
1	1	32	115	79	42	16	16	4	M12
1	1 ¼	40	140	89	51	16	16	4	M16
1	1 ½	50	150	98	62	16	18	4	M16
1	2	63	165	121	78	19	18	4	M16
1	2 ½	75	185	140	92	19	18	4	M16
	3	90	200	152	108	19	20	4	M16
	4	110	229	190	128	19	20	8	M16
2	6	160	285	241	178	22	26	8	M20
2	8	200	340	297	235	22	29	8	M20
2	8	225	340	297	238	22	29	8	M20
	10	250/280	406	362	293	25	30	12	M24
	12	315	483	432	338	25	34	12	M24
	14	355	540	476	376	29	42	12	M27
	16	400	597	539	429	29	44	16	M27
	20	450/500	712	635	540	32	53	20	M30



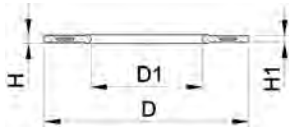
PVDF Coated Steel for Butt Fusion Systems Inch/ANSI Flange Ring blue coated steel

Material: PVDF blue coated steel

Bolt holes drilled in accordance with ANSI B16.5, Class 150 pattern

d (mm)	Size (inch)	Code	D (inch)	a (inch)	k (inch)	b (inch)	l (inch)	Bolt Holes
20	¾	155 701 806	3.50	1.10	2.36	0.28	0.63	4
25	¾	155 701 807	3.86	1.34	2.76	0.28	0.63	4
32	1	155 701 808	4.25	1.65	3.11	0.28	0.63	4
40	1 ¼	155 701 809	4.61	2.01	3.50	0.32	0.63	4
50	1 ½	155 701 810	5.00	2.44	3.86	0.32	0.63	4
63	2	155 701 811	5.98	3.07	4.76	0.39	0.75	4
75	2 ½	155 701 812	7.01	3.62	5.51	0.39	0.75	4
90	3	155 701 813	7.48	4.33	5.98	0.39	0.75	4
110	4	155 703 814	9.02	5.24	7.48	0.39	0.75	8
160	6	155 701 917	10.98	7.05	9.48	0.50	0.88	8
200	8	155 701 919	13.50	9.30	11.73	0.63	0.88	8
225	9	155 701 920	13.50	9.42	11.73	0.63	0.88	8
250	10	155 701 921	16.00	11.35	14.25	0.88	0.88	12
315	12	155 701 923	19.00	13.31	17.00	1.00	1.00	12
355	14	155 701 924	21.00	14.80	18.75	1.00	1.00	12
400	16	155 701 925	23.50	16.93	21.25	1.13	1.13	16
450	18	155 701 926						

Profile Flange Gasket, metric EPDM / FKM



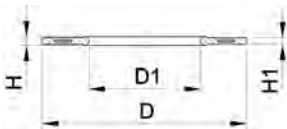
Model:

- For all metric GF Flange Adaptors
- Hardness: 70° Shore EPDM, 75° Shore FKM
- EPDM: approved acc. to DVGW Water W 270, KTW recommendation
- Centering on the inner diameter of the screw crown
- material steel insert: carbon steel
- Rubber-steel body combined with rubber profile cord ring

di FA are the suitable inner diameters of flanges adaptors

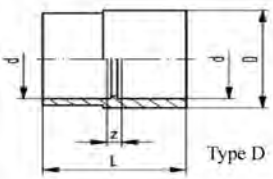
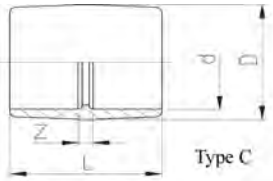
d (mm)	PN (bar)	DN (mm)	EPDM Code	FKM Code	Weight (kg)	D (mm)	D1 (mm)	di FA (mm)	H (mm)	H1 (mm)
16	16	10	748 440 705	749 440 705	0.012	46	16	6 - 16	4	3
20	16	15	748 440 706	749 440 706	0.013	51	20	10 - 20	4	3
25	16	20	748 440 707	749 440 707	0.014	61	22	12 - 22	4	3
32	16	25	748 440 708	749 440 708	0.019	71	28	18 - 28	4	3
40	16	32	748 440 709	749 440 709	0.026	82	40	30 - 40	4	3
50	16	40	748 440 710	749 440 710	0.039	92	46	36 - 46	4	3
63	16	50	748 440 711	749 440 711	0.050	107	58	48 - 58	5	4
75	16	65	748 440 712	749 440 712	0.082	127	69	59 - 69	5	4
90	16	80	748 440 713	749 440 713	0.083	142	84	73 - 84	5	4
110	16	100	748 440 714	749 440 714	0.127	162	104	94 - 104	6	5
125	16	100	748 440 715	749 440 715	0.105	162	123	113 - 123	6	5
140	16	125	748 440 716	749 440 716	0.173	192	137	127 - 137	6	5
160 - 180	16	150	748 440 717	749 440 717	0.207	218	160	150 - 160	8	6
200	16	200	748 440 719	749 440 719	0.263	273	203	192 - 203	8	6
225	16	200	748 440 720	749 440 720	0.255	273	220	207 - 220	8	6
250	16	250	748 440 721	749 440 721	0.462	328	252	238 - 252	8	6
280	16	250	748 440 722	749 440 722	0.323	328	274	264 - 274	8	6
315	16	300	748 440 723	749 440 723	0.549	378	306	296 - 306	8	6
355	16	350	748 440 724	749 440 724	0.870	438	355	340 - 355	10	7
400	16	400	748 440 725	749 440 725	1.088	489	400	385 - 400	10	7

table continued on the next page



d (mm)	PN (bar)	DN (mm)	EPDM Code	FKM Code	Weight (kg)	D (mm)	D1 (mm)	di FA (mm)	H (mm)	H1 (mm)
450	16	500	748 440 726	749 440 726	0.718	594	403	393 - 403	10	7
500	16	500	748 440 727	749 440 727	0.718	594	447	437 - 447	10	7
560	16	600	748 440 728	749 440 728	0.923	695	494	484 - 494	10	7
630	16	600	748 440 729	749 440 729	0.923	695	555	545 - 555	10	7

Socket fusion fittings

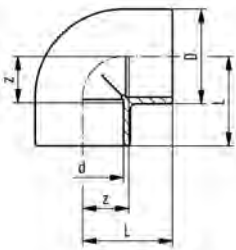


SYGEF Standard socket equal PN16

Model:

- Material: PVDF
- d25 - d50: combination type reducing bush/socket equal

d (mm)	D-d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	L (mm)	z (mm)	Type
16	-	16	735 910 105	0.020	26	33	7	C
20	-	16	735 910 106	0.016	27	35	7	C
25	32 - 25	16	735 910 107	0.024	32	39	7	C
32	40 - 32	16	735 910 108	0.037	40	43	7	C
40	50 - 40	16	735 910 109	0.062	50	48	8	D
50	63 - 50	16	735 910 110	0.106	63	54	8	D
63	-	16	735 910 111	0.153	75	62	8	C

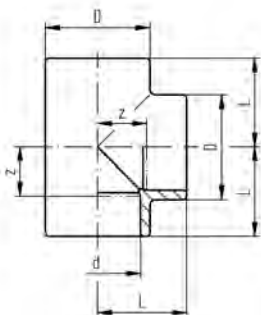


SYGEF Standard elbow 90° PN16

Model:

- Material: PVDF

d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	L (mm)	z (mm)
16	16	735 100 105	0.030	26	25	12
20	16	735 100 106	0.026	27	28	14
25	16	735 100 107	0.039	32	32	16
32	16	735 100 108	0.066	40	38	20
40	16	735 100 109	0.105	49	44	24
50	16	735 100 110	0.160	60	51	28
63	16	735 100 111	0.281	75	62	35



SYGEF Standard T 90° equal PN16

Model:

- Material: PVDF

d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	L (mm)	z (mm)
16	16	735 200 105	0.039	26	25	12
20	16	735 200 106	0.034	27	28	14
25	16	735 200 107	0.052	32	32	16
32	16	735 200 108	0.090	40	38	20
40	16	735 200 109	0.136	49	44	24
50	16	735 200 110	0.211	60	51	28
63	16	735 200 111	0.370	75	62	35



SYGEF Standard elbow 45° PN16

Model:

- Material: PVDF

d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	L (mm)	z (mm)
16	16	735 150 105	0.017	23	20	7
20	16	735 150 106	0.020	27	21	7
25	16	735 150 107	0.031	32	24	8
32	16	735 150 108	0.051	40	28	10
40	16	735 150 109	0.082	49	33	13
50	16	735 150 110	0.119	60	36	13
63	16	735 150 111	0.212	75	43	16



SYGEF Standard reducing bush PN16

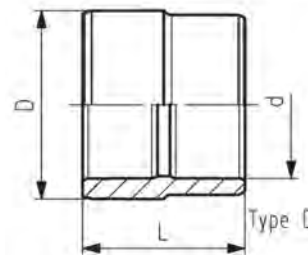
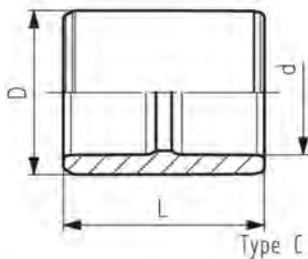
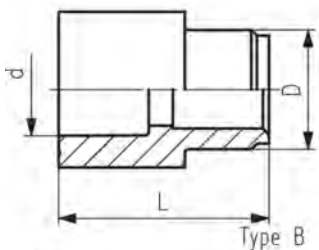
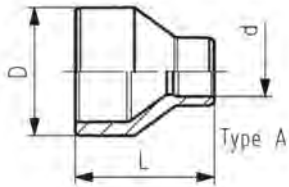
Model:

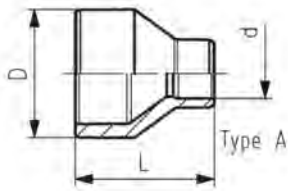
- Material: PVDF

Attention:

- to determine the z-measure please consider the overview of functionality

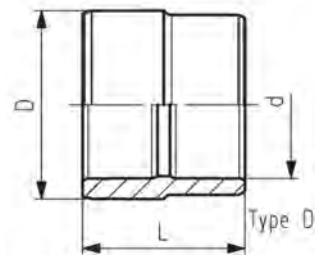
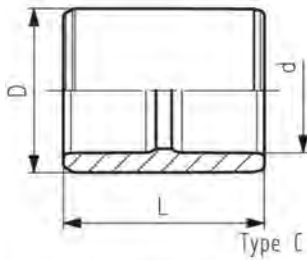
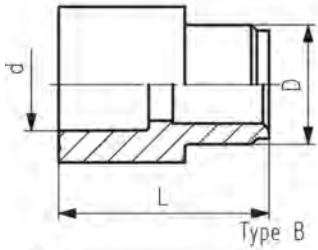
D-d (mm)	PN (bar)	Code	Weight (kg)	L (mm)	Type
20 - 16	16	735 910 334	0.017	35	B
25 - 20	16	735 910 337	0.017	37	A
32 - 20	16	735 910 342	0.024	43	A
32 - 25	16	735 910 107	0.024	39	C
40 - 20	16	735 910 348	0.034	48	A
40 - 25	16	735 910 347	0.037	48	A
40 - 32	16	735 910 108	0.037	43	C
50 - 20	16	735 910 355	0.056	54	A
50 - 25	16	735 910 354	0.058	54	A
50 - 32	16	735 910 353	0.063	54	A
50 - 40	16	735 910 109	0.062	48	D
63 - 20	16	735 910 362	0.102	64	A





D-d	PN	Code	Weight	L	Type
(mm)	(bar)		(kg)	(mm)	
63 - 25	16	735 910 361	0.106	64	A
63 - 32	16	735 910 360	0.109	64	A
63 - 40	16	735 910 359	0.118	64	A
63 - 50	16	735 910 110	0.106	54	D

overview about functionality



main function							additional functions											
reduction spigot - socket							reduction socket - socket				reduction spigot - spigot				reduction socket - spigot			
Code	PN	L	spigot D	socket d	L	Z	socket D	socket d	L	Z	spigot D	spigot d	L	Z	socket D	spigot d	L	Z
735 910 334	16	35	20	16	35	22												
735 910 337	16	37	25	20	37	23												
735 910 342	16	43	32	20	43	29	25	20	43	13								
735 910 107	16	39	32	25	39	23												
735 910 348	16	48	40	20	48	34	32	20	48	16								
735 910 347	16	48	40	25	48	32	32	25	48	14	40	32	48	48				
735 910 108	16	43	40	32	43	25												
735 910 355	16	54	50	20	54	40	40	20	54	20								
735 910 354	16	54	50	25	54	38	40	25	54	18	50	32	54	54	40	32	54	34
735 910 353	16	54	50	32	54	36	40	32	54	16	50	40	54	54				
735 910 109	16	48	50	40	48	28												
735 910 362	16	64	63	20	64	50	50	20	64	27								
735 910 361	16	64	63	25	64	48	50	25	64	25	63	32	64	64	50	32	64	41
735 910 360	16	64	63	32	64	46	50	32	64	23	63	40	64	64	50	40	64	41
735 910 359	16	64	63	40	64	44	50	40	64	21	63	50	64	64				
735 910 110	16	54	63	50	54	31												

please note: illustration of the functions not inevitably conform to respective type!



SYGEF Standard end cap PN16

Model:

- Material: PVDF

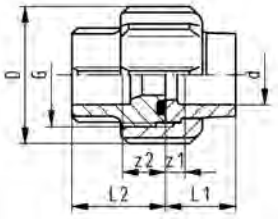
d	PN	Code	Weight	D	L
(mm)	(bar)		(kg)	(mm)	(mm)
16	16	735 960 105	0.013	25	24
20	16	735 960 106	0.010	27	23
25	16	735 960 107	0.016	32	26
32	16	735 960 108	0.026	40	30
40	16	735 960 109	0.046	49	34
50	16	735 960 110	0.072	60	39
63	16	735 960 111	0.127	75	46



SYGEF Standard union (FKM black) PN16

Model:

- Material: PVDF
- With fusion socket metric
- Jointing face: With O-ring groove
- **Supplied with:** O-Ring No. 49 41 00 FKM
- Please see installation instruction



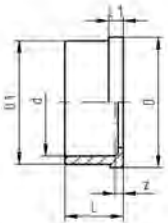
d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	G (inch)	L1 (mm)	L2 (mm)	z1 (mm)	z (mm)
16	16	735 510 105	0.025	35	¾	18	24	5	11
20	16	735 510 106	0.057	43	1	19	26	5	12
25	16	735 510 107	0.090	53	1 ¼	21	28	5	12
32	16	735 510 108	0.118	60	1 ½	23	30	5	12
40	16	735 510 109	0.195	74	2	25	34	5	14
50	16	735 510 110	0.244	82	2 ¼	28	39	5	16
63	16	735 510 111	0.403	100	2 ¾	32	47	5	20



SYGEF Standard union end PN16

Model:

- Material: PVDF
- Suitable for SYGEF Standard Union Socket Fusion



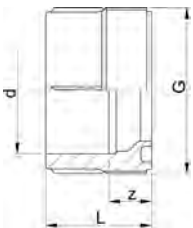
d (mm)	PN (bar)	Code	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
16	16	735 600 105	24	22	18	4	5
20	16	735 600 106	30	28	19	5	5
25	16	735 600 107	39	36	21	5	5
32	16	735 600 108	45	42	23	6	5
40	16	735 600 109	57	53	25	6	5
50	16	735 600 110	63	59	28	7	5
63	16	735 600 111	78	74	32	7	5



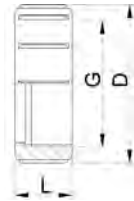
SYGEF Standard union bush socket fusion PN16

Model:

- Material: PVDF
- Suitable for SYGEF Standard Union Socket Fusion



d (mm)	PN (bar)	Code	Weight (kg)	G (inch)	L (mm)	z (mm)
16	16	735 640 105	0.011	¾	24	11
20	16	735 640 106	0.019	1	26	12
25	16	735 640 107	0.027	1 ¼	28	12
32	16	735 640 108	0.042	1 ½	30	12
40	16	735 640 109	0.069	2	34	14
50	16	735 640 110	0.091	2 ¼	39	16
63	16	735 640 111	0.159	2 ¾	47	20



SYGEF Standard union nut PN16

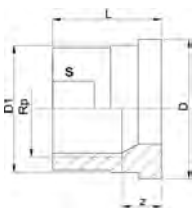
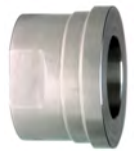
Model:

- Material: PVDF
- d75, d90 and d100 with buttress shaped thread

Note:

For the dimensions d75-110 please see instructions for the installation

Socket Fusion d (mm)	Butt Fusion d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	G (inch)	L (mm)
16	16	16	735 690 405	0.011	35	3/4	21
20	20	16	735 690 406	0.021	43	1	22
25	25	16	735 690 407	0.030	53	1 1/4	24
32	32	16	735 690 408	0.035	60	1 1/2	26
40	40	16	735 690 409	0.065	74	2	29
50	50	16	735 690 410	0.093	82	2 1/4	33
63	63	16	735 690 411	0.144	100	2 3/4	35
	75 - 90	16	735 690 422	0.289	133		40
	110	16	735 690 423	0.403	155		42

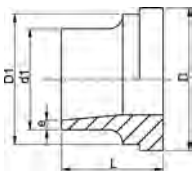


Union end stainless steel Rp

Model:

- Material: stainless steel 1.4404 (316L)
- Parallel female thread Rp

d (mm)	Rp (inch)	PN (bar)	Code	Weight (kg)	z (mm)	D (mm)	D1 (mm)	L (mm)	s (mm)
16	3/8	16	724 600 655	0.030	9	24	22	19	19
20	1/2	16	724 600 656	0.060	11	30	28	24	24
25	3/4	16	724 600 657	0.092	11	39	36	26	29
32	1	16	724 600 658	0.137	12	45	42	29	36
40	1 1/4	16	724 600 659	0.226	14	57	53	33	45
50	1 1/2	16	724 600 660	0.314	15	63	59	34	54
63	2	16	724 600 661	0.438	15	78	74	39	63

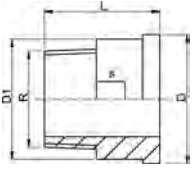


Union end stainless steel Welding end

Model:

- Material: stainless steel 1.4404 (316L)

d1 (mm)	d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	L (mm)	e (mm)
17	16	16	724 605 505	0.029	24	22	18	1.6
21	20	16	724 605 506	0.046	30	28	22	2.0
26	25	16	724 605 507	0.080	39	36	23	2.0
33	32	16	724 605 508	0.112	45	42	26	2.0
42	40	16	724 605 509	0.188	57	53	26	2.0
48	50	16	724 605 510	0.222	63	59	28	2.0
60	63	16	724 605 511	0.361	78	74	32	2.6



Union end stainless steel R

Model:

- Material: stainless steel 1.4404 (316L)
- Taper male thread R

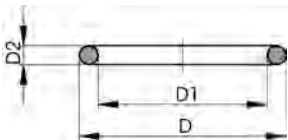
d (mm)	R (inch)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	L (mm)	s (mm)
16	3/8	16	724 600 705	0.052	24	22	30	19
20	1/2	16	724 600 706	0.083	30	28	34	24
25	3/4	16	724 600 707	0.125	39	36	36	32
32	1	16	724 600 708	0.189	45	42	40	37
40	1 1/4	16	724 600 709	0.356	57	53	46	48
50	1 1/2	16	724 600 710	0.407	63	59	48	54
63	2	16	724 600 711	0.668	78	74	55	69



Union nut stainless steel 1.4404 (316L)

* Octagon union nut

d (mm)	PN (bar)	Code	SP	Weight (kg)	G (inch)	closest inch (inch)	L (mm)	s (mm)
16	16	724 690 105	10	0.060	3/4	3/4	19	32
20	16	724 690 106	10	0.105	1	1/2	21	41
25	16	724 690 107	10	0.091	1 1/4	3/4	23	46
32	16	724 690 108	10	0.170	1 1/2	1	24	55
*	40	724 690 109	10	0.218	2	1 1/4	27	68
*	50	724 690 110	10	0.316	2 1/4	1 1/2	31	74
*	63	724 690 111	10	0.364	2 3/4	2	35	88



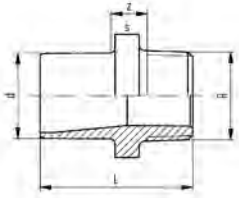
O-ring black

Model:

- Hardness approx. 65° Shore
- FKM minimum temperature -15°C

d (mm)	DN (mm)	FKM Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)
16	10	749 410 005	0.002	21	16	2.62
20	15	749 410 006	0.002	27	20	3.53
25	20	749 410 007	0.002	35	28	3.53
32	25	749 410 008	0.002	40	33	3.53
40	32	749 410 009	0.007	51	41	5.34
50	40	749 410 010	0.060	58	47	5.34
63	50	749 410 011	0.003	70	60	5.34

Transition fittings socket fusion

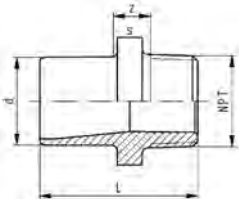


SYGEF Standard adaptor nipple male thread metric R PN16

Model:

- Material: PVDF
- With socket fusion spigot metric and BSP tapered male thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature

R (inch)	d (mm)	PN (bar)	Code	Weight (kg)	L (mm)	z (mm)	s (mm)
3/8	16	16	735 910 505	0.014	35	12	27
1/2	20	16	735 910 506	0.025	53	25	32
3/4	25	16	735 910 507	0.033	55	24	36
1	32	16	735 910 508	0.053	57	22	46
1 1/4	40	16	735 910 509	0.076	60	21	55
1 1/2	50	16	735 910 510	0.113	63	19	65
2	63	16	735 910 511	0.161	69	18	75

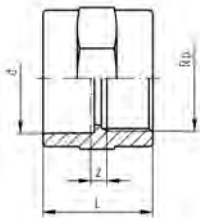


SYGEF Standard adaptor nipple male thread NPT PN 16

Model:

- Material: PVDF
- With socket fusion spigot and taper male thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature

d (mm)	NPT (inch)	PN (bar)	Code	Weight (kg)	L (mm)	s (mm)	z (mm)
16	3/8	16	735 914 505	0.014	35	27	12
20	1/2	16	735 914 506	0.027	53	32	25
25	3/4	16	735 914 507	0.034	55	36	24
32	1	16	735 914 508	0.053	57	46	22
40	1 1/4	16	735 914 509	0.080	60	55	21
50	1 1/2	16	735 914 510	0.113	63	65	19
63	2	16	735 914 511	0.163	69	75	18

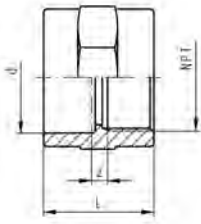


SYGEF Standard adaptor socket female thread Rp PN16

Model:

- Material: PVDF
- With socket fusion end and parallel female thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature

d (mm)	Rp (inch)	PN (bar)	Code	Weight (kg)	L (mm)	s (mm)	z (mm)
20	1/2	16	735 910 206	0.030	34	32	5
25	3/4	16	735 910 207	0.036	38	36	6
32	1	16	735 910 208	0.067	43	46	7
40	1 1/4	16	735 910 209	0.100	47	55	7
50	1 1/2	16	735 910 210	0.135	54	65	9
63	2	16	735 910 211	0.217	62	80	9

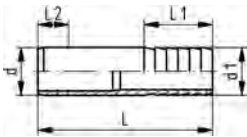


SYGEF Standard adaptor socket female thread metric NPT PN16

Model:

- Material: PVDF
- With socket fusion end and taper female thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature

d	NPT	PN	Code	Weight	L	s	z
(mm)	(inch)	(bar)		(kg)	(mm)	(mm)	(mm)
16	3/8	16	735 914 205	0.016	29	27	3
20	1/2	16	735 914 206	0.030	34	32	5
25	3/4	16	735 914 207	0.036	38	36	6
32	1	16	735 914 208	0.067	43	46	7
40	1 1/4	16	735 914 209	0.100	47	55	7
50	1 1/2	16	735 914 210	0.140	54	65	9
63	2	16	735 914 211	0.220	62	80	9



SYGEF Standard hose adaptor SDR21/PN16

Model:

- Material: PVDF
- With socket fusion spigot metric and parallel hose connection

d - d1	PN	Code	Weight	L	L1	L2
(mm)	(bar)		(kg)	(mm)	(mm)	(mm)
16 - 16	16	735 960 405	0.008	50	27	13
20 - 20	16	735 960 406	0.018	78	27	14
25 - 25	16	735 960 407	0.028	91	36	16
32 - 32	16	735 960 408	0.050	100	36	18
40 - 40	16	735 960 409	0.078	104	42	20
50 - 50	16	735 960 410	0.089	90	48	23
63 - 60	16	735 960 411	0.126	100	50	27

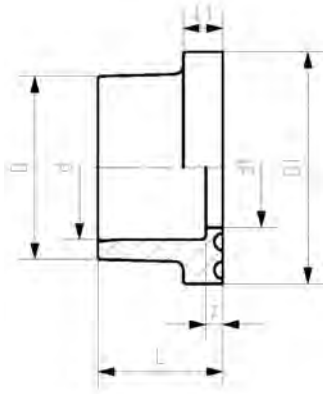
Flange Adaptor, Flanges and Gaskets for Socket Fusion



SYGEF Standard flange adaptor
Metric jointing face serrated PN16

Model:

- Material: PVDF
- Suitable for flange adaptor with groove
- Gasket: profile flange gaskets **FKM** or **EPDM**



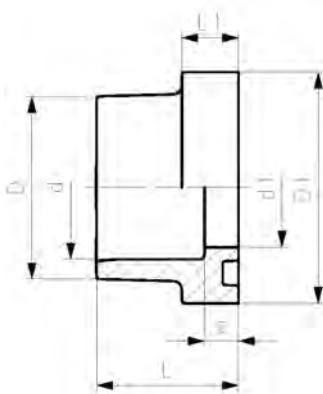
d	DN	PN	Code	Weight	D	D1	d1	L	L1	z
(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	15	16	735 790 206	0.019	27	45	16	19	6	3
25	20	16	735 790 207	0.037	33	58	21	21	7	3
32	25	16	735 790 208	0.047	41	68	28	23	7	3
40	32	16	735 790 209	0.073	50	78	36	25	8	3
50	40	16	735 790 210	0.096	61	88	45	28	8	3
63	50	16	735 790 211	0.141	76	102	57	32	9	3



SYGEF Standard flange adaptor with groove PN16

Model:

- Material: PVDF
- Counterpart: flange adaptor metric or ANSI
- Counterpart: flange adaptor with jointing face serrated
- Gasket: O-ring EPDM No. 48 41 01, FKM No. 49 41 01



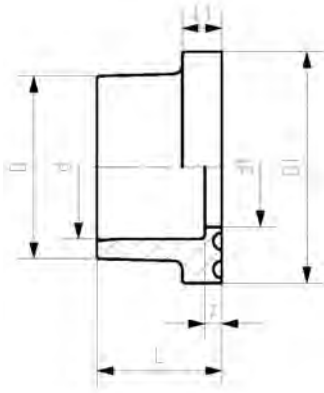
d	DN	PN	Code	Weight	D	D1	d1	L	L1	z
(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	15	16	735 810 106	0.015	27	34	16	22	9	8
25	20	16	735 810 107	0.022	33	41	21	24	10	8
32	25	16	735 810 108	0.035	41	50	28	26	10	8
40	32	16	735 810 109	0.055	50	61	36	30	13	10
50	40	16	735 810 110	0.080	61	73	45	33	13	10
63	50	16	735 810 111	0.134	76	90	57	37	14	10



SYGEF Standard flange adaptor ANSI Jointing face serrated PN16

Model:

- Material: PVDF
- Counterpart: flange adaptor with jointing face serrated
- Face dimension ANSI
- Gasket: flat gasket **FKM** or **EPDM**
- Gasket: profile flange gaskets **FKM** or **EPDM**
- Dimensions d20 and d63 are identical to metric version



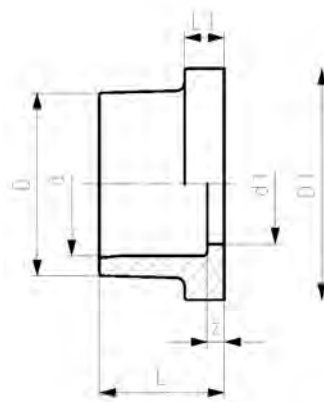
d (mm)	PN (bar)	d (inch)	Code	Weight (kg)	D (mm)	D1 (mm)	d1 (mm)	L (mm)	L1 (mm)	z (mm)
25	16	¾	735 790 257	0.037	33	54	21	21	7	3
32	16	1	735 790 258	0.051	41	63	28	23	7	3
40	16	1 ¼	735 790 259	0.073	50	73	36	25	8	3
50	16	1 ½	735 790 260	0.095	61	82	45	28	8	3



SYGEF Standard flange adaptor JIS Jointing face flat PN16

Model:

- Material: PVDF



d (mm)	Code	Weight (kg)	D (mm)	D1 (mm)	d1 (mm)	L (mm)	L1 (mm)	z (mm)
20	735 800 106	0.013	27	34	16	19	6	3
25	735 800 107	0.020	33	41	21	21	7	3
32	735 800 108	0.030	41	50	28	23	7	3
40	735 800 109	0.047	50	60	36	25	8	3
50	735 800 110	0.070	61	72	45	28	8	3
63	735 800 111	0.115	75	89	57	32	9	3



Backing flange PP-V metric For socket systems metric and BS

Model:

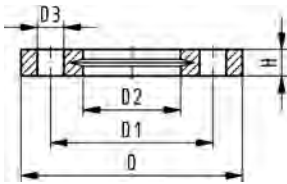
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**
- Full-plastic flange PP-GF (30 % glass-fibre reinforced)

- ¹⁾ Suitable for socket- and butt fusion systems
- ²⁾ Not for BS
- ³⁾ Combined version, metric - ANSI

AL: number of holes



	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H max. (mm)	AL	SC
1	20	15	16	727 700 406	0.093	95	65	28	14	16	4	M12
1	25	20	16	727 700 407	0.120	105	75	34	14	17	4	M12
1	32	25	16	727 700 408	0.151	115	85	42	14	18	4	M12
1	40	32	16	727 700 409	0.244	140	100	51	18	20	4	M16
1	50	40	16	727 700 410	0.297	150	110	62	18	22	4	M16
1	63	50	16	727 700 411	0.362	165	125	78	18	24	4	M16



Backing flange PP-V Inch ANSI For socket systems metric and BS

Model:

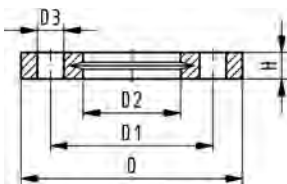
- Full-plastic flange PP-GF (30 % glass-fibre reinforced)
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- Special flange adapter ANSI for d25 - d50 and d90 required

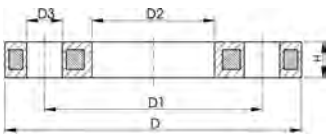
AL: number of holes

- ¹⁾ Suitable for socket- and butt fusion systems
- ²⁾ Not for BS
- ³⁾ Combined version, metric - ANSI



	Size (inch)	DN (mm)	d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H max. (mm)	AL	SC
1	½	15	20	16	727 701 406	0.091	95	60	28	16	16	4	M12
1	¾	20	25	16	727 701 407	0.120	105	70	34	16	17	4	M12
1	1	25	32	16	727 701 408	0.147	115	79	42	16	18	4	M12
1	1 ¼	32	40	16	727 701 409	0.246	140	89	51	16	20	4	M16
1	1 ½	40	50	16	727 701 410	0.299	150	98	62	16	22	4	M16
1	2	50	63	16	727 701 411	0.361	165	121	78	19	24	4	M16





Backing flange PP-Steel metric For socket systems metric and BS

Model:

- Bolt circle PN 10
- PP-GF (30% glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

AL: number of holes

¹⁾ Suitable for socket -and butt fusion systems

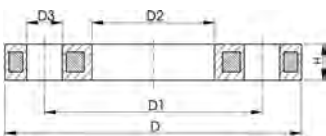
²⁾ Not for BS

³⁾ Connecting dimension: ISO 2536. bolt circle acc. DN125. suitable for flange adaptor d125/ DN100

⁴⁾ Connecting dimension: ISO 2536. bolt circle acc. DN225. suitable for flange adaptor d250/ DN250

⁵⁾ Combined version, bolt circle metric - ANSI

	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D1 (mm)	D3 (mm)	D2 (mm)	D (mm)	H max. (mm)	AL
1	20	15	16	727 700 206	0.216	65	14	28	95	12	4
1	25	20	16	727 700 207	0.279	75	14	34	105	12	4
1	32	25	16	727 700 208	0.429	85	14	42	115	16	4
1	40	32	16	727 700 209	0.621	100	18	51	140	16	4
1	50	40	16	727 700 210	0.722	110	18	62	150	20	4
1	63	50	16	727 700 211	0.900	125	18	78	165	20	4



Backing flange PP-Steel Inch/ANSI For butt fusion systems metric

Model:

- Material: PP (30% glass-fibre reinforced) with steel ring
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- Bolt circle class 150
- Special flange adapter ANSI for d25 - d50 and d90 required

¹⁾ Suitable for socket -and butt fusion systems

²⁾ Combined version, bolt circle metric - ANSI

AL: number of holes

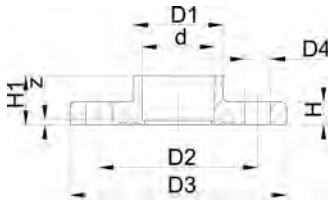
	d (inch)	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H max. (mm)	AL	SC
1	½	20	15	16	727 701 206	0.213	95	60	28	16	12	4	M12
1	¾	25	20	16	727 701 207	0.260	105	70	34	16	12	4	M12
1	1	32	25	16	727 701 208	0.416	115	79	42	16	16	4	M12
1	1 ¼	40	32	16	727 701 209	0.730	140	89	51	16	16	4	M16
1	1 ½	50	40	16	727 701 210	0.809	150	98	62	16	18	4	M16
1	2	63	50	16	727 701 211	0.866	165	121	78	19	18	4	M16



SYGEF Standard fixed flange
For socket fusion metric
Combined jointing face: flat and serrated

Model:

- Material: PVDF
 - Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- AL: number of holes



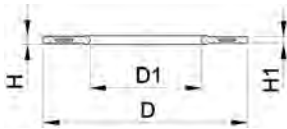
d	DN	Inch	PN	Code	Weight	D1	D2	D3	D4	H	H1	AL	z
(mm)	(mm)	(inch)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)
20	15	1/2	16	735 740 106	0.121	27	65	93	14	12	19	4	5
25	20	3/4	16	735 740 107	0.162	33	75	103	14	13	21	4	4
32	25	1	16	735 740 108	0.229	40	85	115	14	14	23	4	4
40	32	1 1/4	16	735 740 109	0.340	50	100	137	18	15	25	4	4
50	40	1 1/2	16	735 740 110	0.409	61	110	147	18	16	27	4	4
63	50	2	16	735 740 111	0.551	76	125	162	18	18	31	4	4



Profile Flange Gasket, metric
EPDM / FKM

Model:

- For all metric GF Flange Adaptors
 - Hardness: 70° Shore EPDM, 75° Shore FKM
 - EPDM: approved acc. to DVGW Water W 270, KTW recommendation
 - Centering on the inner diameter of the screw crown
 - material steel insert: carbon steel
 - Rubber-steel body combined with rubber profile cord ring
- di FA are the suitable inner diameters of flanges adaptors



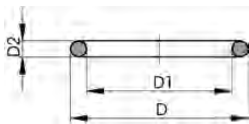
d	PN	DN	EPDM Code	FKM Code	Weight	D	D1	di FA	H	H1
(mm)	(bar)	(mm)			(kg)	(mm)	(mm)	(mm)	(mm)	(mm)
20	16	15	748 440 706	749 440 706	0.013	51	20	10 - 20	4	3
25	16	20	748 440 707	749 440 707	0.014	61	22	12 - 22	4	3
32	16	25	748 440 708	749 440 708	0.019	71	28	18 - 28	4	3
40	16	32	748 440 709	749 440 709	0.026	82	40	30 - 40	4	3
50	16	40	748 440 710	749 440 710	0.039	92	46	36 - 46	4	3
63	16	50	748 440 711	749 440 711	0.050	107	58	48 - 58	5	4



O-Ring gasket

Model:

- Suitable for flange adaptor with groove
- Hardness approx. 65° Shore



d	DN	EPDM Code	Weight	FKM Code	Weight	D	D1	D2	closest inch
(mm)	(mm)		(kg)		(kg)	(mm)	(mm)	(mm)	(inch)
20	15	748 410 001	0.002	749 410 001	0.002	30.46	23.40	3.53	1/2
25	20	748 410 007	0.002	749 410 007	0.002	35.23	28.17	3.53	3/4
32	25	748 410 002	0.003	749 410 002	0.003	43.16	36.10	3.53	1
40	32	748 410 003	0.004	749 410 003	0.002	54.50	43.82	5.34	1 1/4
50	40	748 410 012	0.004	749 410 012	0.008	64.02	53.34	5.34	1 1/2
63	50	748 410 013	0.006	749 410 013	0.011	79.90	69.22	5.34	2

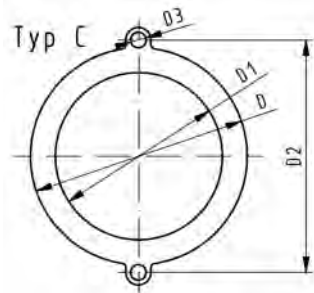
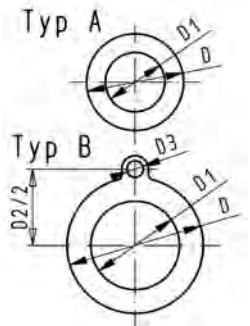


**Flat gasket
EPDM**

Model:

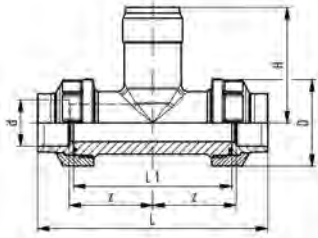
- For all metric GF Flange Adaptors
- Hardness approx. 65° Shore
- Integrated fixation aids from d110
- Centering on the inner diameter of the screw crown

di FA are the suitable inner diameters of flanges adaptors



d (mm)	DN (mm)	PN (bar)	Type	EPDM Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	di FA (mm)
16	10	10	A	748 400 305	0.004	46	16			2	6 - 26
20	15	10	A	748 400 306	0.012	51	20			2	10 - 30
25	20	10	A	748 400 307	0.004	61	25			2	15 - 35
32	25	10	A	748 400 308	0.008	71	32			2	22 - 42
40	32	10	A	748 400 309	0.013	82	40			3	30 - 50
50	40	10	A	748 400 310	0.016	92	50			3	40 - 60
63	50	10	A	748 400 311	0.018	107	63			3	53 - 73

Installation fittings



SYGEF Standard installation fitting type 310 (FKM black) PN16 for socket fusion systems

Range of use:

- Compatible Signet pH/ORP sensors: type 2724, 2725, 2726, 2734, 2736, 2735
- Compatible Signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512

Model:

- Union end with fusion socket PVDF
- Material: PVDF
- Threaded outlet 1 ¼" NPSM
- supplied with sealing

Attention:

- sensor length depends on installation fitting

d (mm)	PN (bar)	Code	Weight (kg)	L1 (mm)	D (mm)	H (mm)	L (mm)	z (mm)	Sensor Type
20	16	735 310 036	0.250	90	45	76	128	50	flow X0, pH XX
25	16	735 310 037	0.355	100	55	78	142	55	flow X0, pH XX
32	16	735 310 038	0.427	110	62	81	156	60	flow X0, pH XX
40	16	735 310 039	0.540	110	75	85	160	60	flow X0, pH XX
50	16	735 310 040	0.850	120	84	89	176	65	flow X0, pH XX
63	16	735 310 041	0.987	130	101	95	194	70	flow X0, pH XX

SYGEF Standard installation fitting type 311 (FKM black)

Range of use:

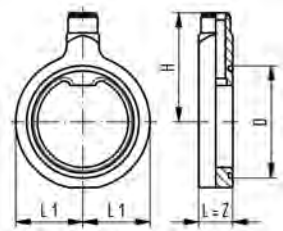
- Compatible Signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512

Attention:

- sensor length depends on installation fitting

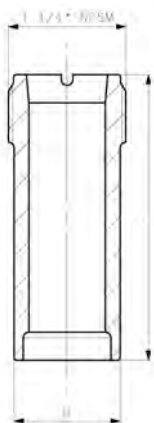
Model:

- Material: PVDF
- Threaded outlet 1 ¼" NPSM
- Suitable for backing flanges metric and inch
- Delivered with profile O-ring



d (inch)	DN (mm)	PN (bar)	d (mm)	Code	Weight (kg)	Sensor Type	D (mm)	H (mm)	L (mm)	L1 (mm)
2 ½	65	10 - 16	75	735 311 042	0.845	flow X1	88	135	48	61
3	80	10 - 16	90	735 311 043	1.020	flow X1	102	141	48	69
4	100	10 - 16	110	735 311 044	1.192	flow X1	132	152	48	79
	100	10 - 16	125	735 311 045	0.990	flow X1	132	147	48	79
5	125	10 - 16	140	735 311 046	1.473	flow X1	157	153	48	94
6	150	10 - 16	160	735 311 047	1.742	flow X1	182	161	48	106
8	200	10 - 16	200	735 311 049	2.643	flow X1	236	175	48	134
8	200	10 - 16	225	735 311 050	2.074	flow X1	236	185	48	134

SYGEF Standard installation fitting type 314



Attention:

- pressure rate depends on quality of hot gas back welding
- please consult the instruction manual
- Installation by trained and certified welders only
- only for pressureless or low pressure application
- pH sensors can also be used for dimensions above d180/DN150 and below d75/DN65 with 735 314 000 The length might have to be adjusted (sensor has to touch the medium)

Range of use:

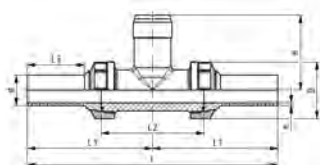
- Compatible Signet pH/ORP sensors: type 2724, 2725, 2726, 2734, 2736, 2735
- Compatible Signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512

Model:

- For conventional hot gas back welding according to DVS 2207 part 3
- Threaded outlet 1 1/4" NPSM
- Material: PVDF

DN	d (mm)	PN* (bar)	Code	Weight (kg)	Sensor Type	D (mm)	L (mm)
65 - 150	75 - 180	-	735 314 000	0.069	flow X0, pH XX	38	68
200 - 350	200 - 355	-	735 314 001	0.100	flow X1	38	102
350 - 600	400 - 630	-	735 314 002	0.173	flow X2	38	178

SYGEF Standard installation fitting type 318 (FKM black) PN16 for butt fusion systems



Model:

- Material: PVDF
- Threaded outlet 1 1/4" NPSM
- Union end with butt fusion spigot PVDF

Range of use:

- Compatible Signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- Compatible Signet pH/ORP sensors: type 2724, 2725, 2726, 2734, 2736, 2735

Attention:

- sensor length depends on installation fitting
- supplied with sealing

FM	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)
BCF, IR	20	15	16	735 318 036	0.240
BCF, IR	25	20	16	735 318 037	0.318
BCF, IR	32	25	16	735 318 038	0.427
BCF, IR	40	32	16	735 318 039	0.588
BCF, IR	50	40	16	735 318 040	0.719
BCF, IR	63	50	16	735 318 041	1.088

L3 (mm)	L2 (mm)	e (mm)	Sensor Type	H (mm)	L (mm)	L1 (mm)	D (mm)
37	90	2	flow X0, pH XX	76	196	98	45
37	100	2	flow X0, pH XX	78	212	106	55
40	110	2	flow X0, pH XX	81	228	114	62
40	110	2	flow X0, pH XX	85	234	117	75
43	120	3	flow X0, pH XX	89	250	125	84
43	130	3	flow X0, pH XX	95	266	133	101

SYGEF Standard

Valves



Hand operated valves

Ball valves



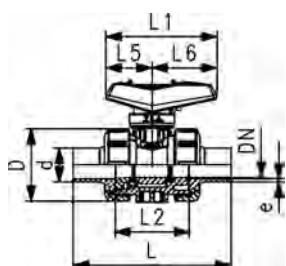
SYGEF Standard Ball valve type 546 Pro With butt fusion spigots IR-Plus metric

Model:

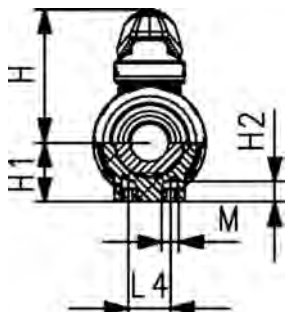
- Material: PVDF
- Lockable lever as standard (DN10-DN50)
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Z-dimension, valve end and union nut **are compatible** with type 546 (1st Generation)

Option:

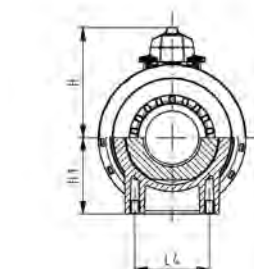
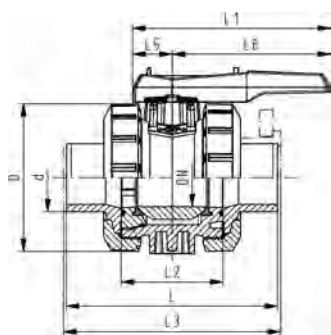
- Interface-module with position feedback sensor, incl. LED feedback (DN10-50)
- Manual spring return lever ("Dead man") (DN10-25)
- Pneumatic or electric actuators from GF
- Individual configuration of the valve possible
- Multifunctional module with integrated limit switches (DN65-100)



d (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
20	16	185	175 546 272	0.201
25	16	350	175 546 273	0.301
32	16	700	175 546 274	0.438
40	16	1000	175 546 275	0.780
50	16	1600	175 546 276	1.110
63	16	3100	175 546 277	1.958
75	16	5000	175 546 278	7.600
90	16	7000	175 546 279	7.457
110	16	11000	175 546 280	17.400



d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	e (mm)
20	50	61	27	12	130	82	56	25	35	47	M6	1.9
25	58	78	30	12	143	105	65	25	44	62	M6	1.9
32	68	80	36	15	150	105	71	45	44	62	M8	2.4
40	84	95	44	15	171	131	85	45	57	74	M8	2.4
50	97	102	51	15	191	131	89	45	57	74	M8	3.0
63	124	117	64	15	219	152	101	70	66	86	M8	3.0
75	166	150	85	15	266	269	136	70	64	206	M8	3.6
90	200	161	105	15	264	269	141	70	64	206	M8	4.3
110	238	178	123	22	301	319	164	120	64	256	M12	5.3





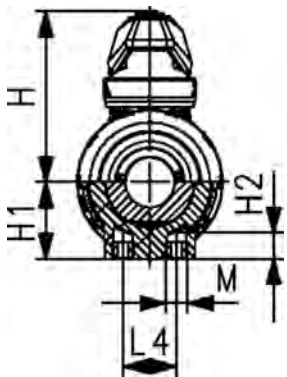
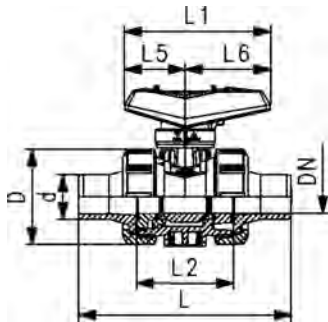
SYGEF Standard
Ball valve type 546 Pro
With socket fusion spigots metric

Model:

- Material: PVDF
- Lockable lever as standard (DN10-DN50)
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Z-dimension, valve end and union nut **are compatible** with type 546 (1st Generation)

Option:

- Interface-module with position feedback sensor, incl. LED feedback (DN10-50)
- Manual spring return lever ("Dead man") (DN10-25)
- Pneumatic or electric actuators from GF
- Individual configuration of the valve possible



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
16	10	16	71	175 546 051	0.200
20	15	16	185	175 546 052	0.205
25	20	16	350	175 546 053	0.310
32	25	16	700	175 546 054	0.460
40	32	16	1000	175 546 055	0.780
50	40	16	1600	175 546 056	1.110
63	50	16	3100	175 546 057	2.150

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M
16	50	61	27	12	110	82	56	25	35	47	M6
20	50	61	27	12	120	82	56	25	35	47	M6
25	58	74	30	12	139	105	65	25	44	62	M6
32	68	80	36	15	150	105	71	45	44	62	M8
40	84	95	44	15	170	131	85	45	57	74	M8
50	97	102	51	15	189	131	89	45	57	74	M8
63	124	117	64	15	219	152	101	70	66	86	M8



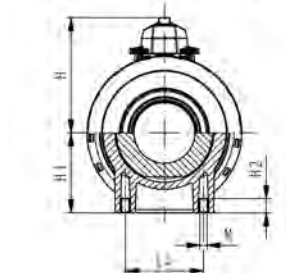
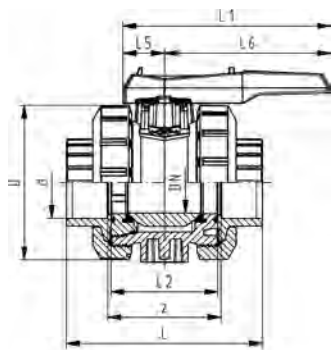
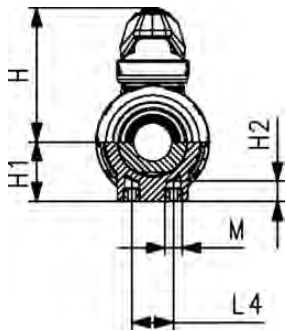
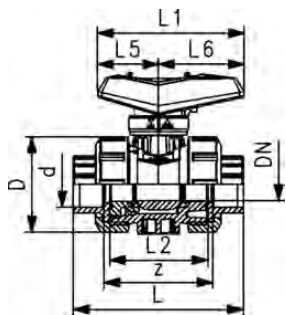
SYGEF Standard
Ball valve type 546 Pro
With fusion sockets metric

Model:

- Material: PVDF
- Lockable lever as standard (DN10-DN50)
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Z-dimension, valve end and union nut **are compatible** with type 546 (1st Generation)

Option:

- Interface-module with position feedback sensor, incl. LED feedback (DN10-50)
- Manual spring return lever ("Dead man") (DN10-25)
- Pneumatic or electric actuators from GF
- Individual configuration of the valve possible
- Multifunctional module with integrated limit switches (DN65-100)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	Weight (kg)
16	10	16	71	175 546 411	0.195
20	15	16	185	175 546 412	0.197
25	20	16	350	175 546 413	0.302
32	25	16	700	175 546 414	0.431
40	32	16	1000	175 546 415	0.760
50	40	16	1600	175 546 416	1.011
63	50	16	3100	175 546 417	1.856
75	65	16	5000	175 546 418	6.300
90	80	16	7000	175 546 419	9.500
110	100	16	11000	175 546 420	15.000

d (mm)	DN (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)	closest inch (inch)
16	10	50	61	27	12	93	82	56	25	35	47	M6	67	$\frac{3}{8}$
20	15	50	61	27	12	95	82	56	25	35	47	M6	67	$\frac{1}{2}$
25	20	58	74	30	12	108	106	65	25	44	62	M6	76	$\frac{3}{4}$
32	25	68	80	36	12	118	106	71	25	44	62	M6	82	1
40	32	84	95	44	15	136	131	85	45	57	74	M8	96	1 $\frac{1}{4}$
50	40	97	102	51	15	147	131	89	45	57	74	M8	101	1 $\frac{1}{2}$
63	50	124	117	64	15	168	152	101	45	66	86	M8	114	2
75	65	166	150	85	15	233	270	136	70	64	206	M8	171	2 $\frac{1}{2}$
90	80	200	161	105	15	254	270	141	70	64	206	M8	184	3
110	100	238	178	123	22	299	320	164	120	64	256	M12	217	4



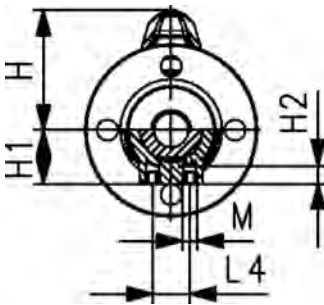
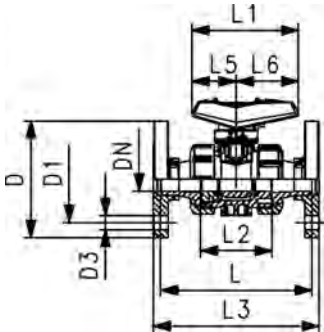
SYGEF Standard
Ball valve type 546 Pro
With fixed flange PVDF serrated

Model:

- Material: PVDF
- Lockable lever as standard (DN10-DN50)
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Z-dimension, valve end and union nut **are compatible** with type 546 (1st Generation)

Option:

- Interface-module with position feedback sensor, incl. LED feedback (DN10-50)
- Manual spring return lever ("Dead man") (DN10-25)
- Pneumatic or electric actuators from GF
- Individual configuration of the valve possible



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
20	15	16	185	175 546 192	0.470
25	20	16	350	175 546 193	0.650
32	25	16	700	175 546 194	0.940
40	32	16	1000	175 546 195	1.489
50	40	16	1600	175 546 196	1.889
63	50	16	3100	175 546 197	3.097

d (mm)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M
20	94	65	14	87	27	12	120	82	56	130	25	35	47	M6
25	103	75	14	104	30	12	139	105	65	149	25	44	62	M6
32	115	85	14	115	36	12	150	105	71	160	25	44	62	M6
40	138	100	18	139	44	15	170	131	85	180	45	57	74	M8
50	147	110	18	152	51	15	189	131	89	197	45	57	74	M8
63	162	125	18	181	64	15	220	152	101	228	45	66	86	M8



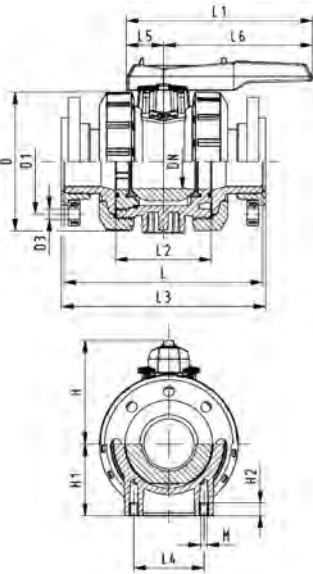
SYGEF Standard
Ball valve type 546 Pro
With backing flanges PP-st metric

Model:

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Z-dimension, valve end and union nut **are compatible** with type 546 (1st Generation)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- Hole circle PN10

Option:

- Pneumatic or electric actuators from GF
- Individual configuration of the valve possible
- Multifunctional module with integrated limit switches (DN65-100)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
75	65	16	5000	175 546 808	11.700
90	80	16	7000	175 546 809	16.000
110	100	16	11000	175 546 810	23.900

d (mm)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M
75	185	145	18	235	85	15	269	136	213	70	64	206	M8
90	200	160	18	266	105	15	269	141	226	70	64	206	M8
110	220	180	18	301	123	22	319	164	257	120	64	256	M12



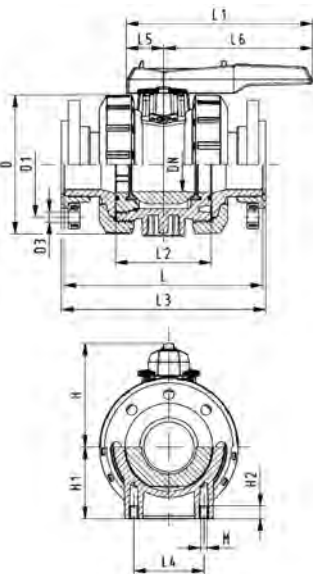
SYGEF Standard
Ball valve type 546 Pro
With backing flanges PP-st Inch ANSI

Model:

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Z-dimension, valve end and union nut **are compatible** with type 546 (1st Generation)
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

Option:

- Pneumatic or electric actuators from GF
- Individual configuration of the valve possible
- Multifunctional module with integrated limit switches (DN65-100)



Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
2 ½	65	16	5000	175 546 818	11.700
3	80	16	7000	175 546 819	16.000
4	100	16	11000	175 546 820	23.900

Size (inch)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M
2 ½	185	140	19	235	85	15	269	136	213	70	64	206	M8
3	200	152	19	266	105	15	269	141	310	70	64	206	M8
4	229	190	19	301	123	22	319	164	257	120	64	256	M12



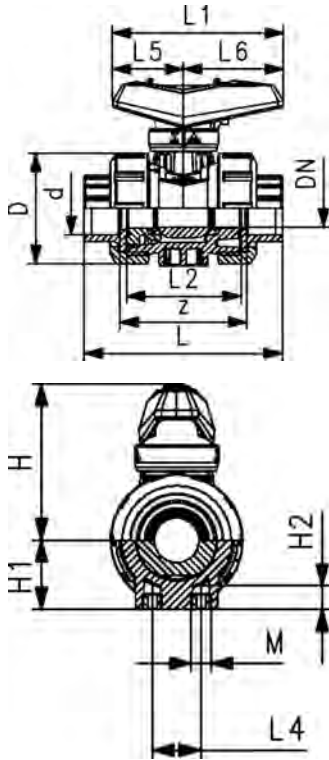
SYGEF Standard
Ball valve type 546 Pro
With threaded sockets NPT

Model:

- Material: PVDF
- Lockable lever as standard (DN10-DN50)
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Z-dimension, valve end and union nut **are compatible** with type 546 (1st Generation)

Option:

- Interface-module with position feedback sensor, incl. LED feedback (DN10-50)
- Manual spring return lever ("Dead man") (DN10-25)
- Pneumatic or electric actuators from GF
- Individual configuration of the valve possible



NPT (inch)	d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
3/8	16	10	10	71	175 546 331	0.205
1/2	20	15	10	185	175 546 332	0.205
3/4	25	20	10	350	175 546 333	0.325
1	32	25	10	700	175 546 334	0.490
1 1/4	40	32	10	1000	175 546 335	0.820
1 1/2	50	40	10	1600	175 546 336	1.135
2	63	50	10	3100	175 546 337	2.150

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)
3/8	50	61	27	12	96	82	56	25	35	47	M6	74
1/2	50	61	27	12	99	82	56	25	35	47	M6	70
3/4	58	74	30	12	111	106	65	25	44	62	M6	81
1	68	80	36	12	126	106	71	25	44	62	M6	89
1 1/4	84	95	44	15	146	131	85	45	57	74	M8	106
1 1/2	97	102	51	15	157	131	89	45	57	74	M8	117
2	124	117	64	15	183	152	101	45	66	86	M8	141



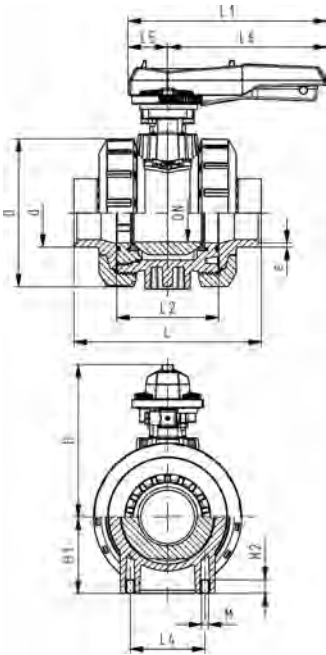
SYGEF Standard
Ball valve type 546
With lockable handle
With butt fusion spigots IR-Plus metric

Model:

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Lockable hand lever with ratchet settings
- Z-dimension, valve end and union nut **are compatible** with type 546 (1st Generation)

Option:

- Pneumatic or electric actuators from GF
- Individual configuration of the valve possible
- Multifunctional module with integrated limit switches (DN65-100)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
75	65	16	5000	175 546 448	7.000
90	80	16	7000	175 546 449	10.200
110	100	16	11000	175 546 450	15.800

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	e (mm)	closest inch (inch)
75	166	224	85	15	266	270	136	70	64	206	M8	3.6	2 ½
90	200	235	105	15	264	270	141	70	64	206	M8	4.3	3
110	238	245	123	22	301	320	164	120	64	256	M12	5.3	4



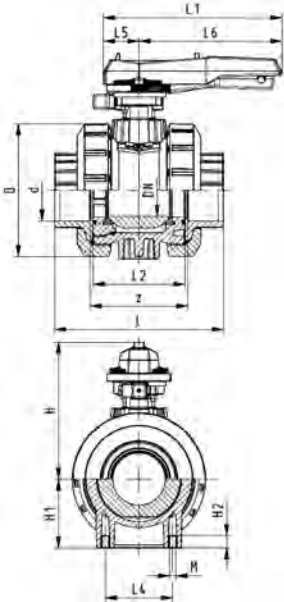
SYGEF Standard
Ball valve type 546 with lockable handle
With Mounting inserts
With fusion sockets metric

Model:

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Lockable hand lever with ratchet settings
- Z-dimension, valve end and union nut **are compatible** with type 546 (1st Generation)

Option:

- Pneumatic or electric actuators from GF
- Individual configuration of the valve possible
- Multifunctional module with integrated limit switches (DN65-100)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
75	65	16	5000	175 546 438	6.800
90	80	16	7000	175 546 439	10.000
110	100	16	11000	175 546 440	15.600

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)	closest inch (inch)
75	166	224	85	15	233	270	136	70	64	206	M8	167	2 ½
90	200	235	105	15	254	270	141	70	64	206	M8	180	3
110	238	245	123	22	301	320	164	120	64	256	M12	215	4



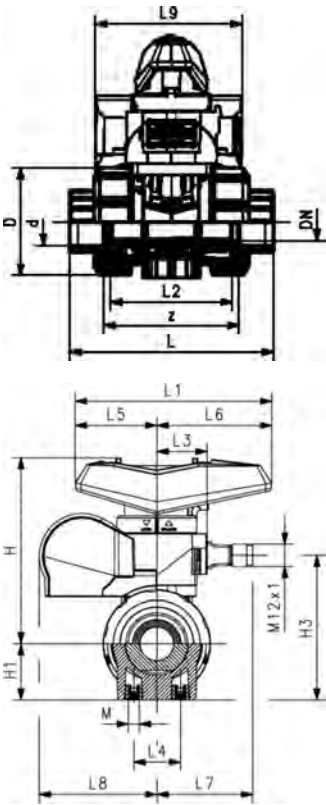
Ball valve 546 Pro PVDF
With manual spring return unit
With fusion sockets metric

Model:

- Manual spring return unit ("Dead-man lever") ensures that the valve closes after operation
- For safe sampling, dosing, cleaning or draining
- Retrofit possible with ball valve 546 (Pro)
- Integrated stainless steel mounting inserts
- For easy installation and removal
- Z-dimension, valve end and union nut **are compatible** with type 546 (1st Generation)
- Includes transparent clip for valve labelling

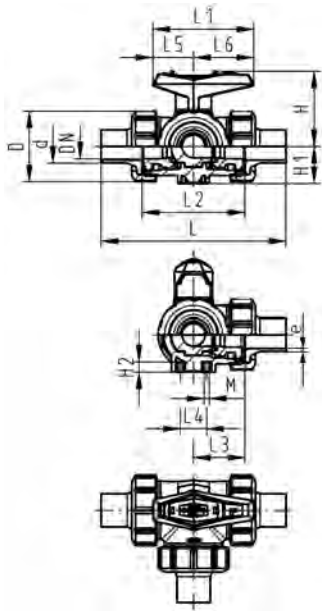
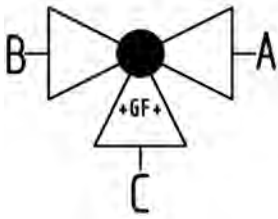
Option:

- Double sensor for position feedback
- Individual configuration of the valve possible



d (mm)	DN (mm)	PN (bar)	kv-value (dp=1 bar)	FKM Code
16	10	16	71	175 546 201
20	15	16	185	175 546 202
25	20	16	350	175 546 203
32	25	16	700	175 546 204

D (mm)	H (mm)	H1 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)	L9 (mm)	M	z (mm)
50	61	27	64	93	82	56	22	25	35	47	46.0	42.5	74	M6	67
50	61	27	64	95	82	56	22	25	35	47	46.0	42.5	74	M6	67
58	74	30	78	108	106	65	27	25	44	62	51.5	63.0	79	M6	76
68	80	36	88	118	106	71	27	25	44	62	51.5	63.0	79	M6	82



SYGEF Standard
3-Way ball valve type 543
Horizontal/L-port
With butt fusion spigots IR-Plus metric

Model:

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
20	15	10	75	175 543 052	0.332
25	20	10	150	175 543 053	0.480
32	25	10	280	175 543 054	0.735
40	32	10	480	175 543 055	1.226
50	40	10	620	175 543 056	1.859
63	50	10	1230	175 543 057	3.370

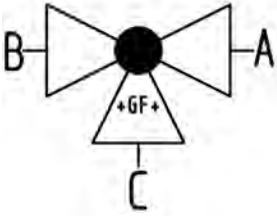
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	57	28	8	146	77	72	36	25	32	45	6	1.9	½
25	58	67	32	8	163	97	85	43	25	39	58	6	1.9	¾
32	68	73	36	8	178	97	98	49	25	39	58	6	2.4	1
40	84	90	45	9	204	128	118	59	45	54	74	8	2.4	1 ¼
50	97	97	51	9	237	128	135	68	45	54	74	8	3.0	1 ½
63	124	116	65	9	296	152	176	88	45	66	87	8	3.0	2



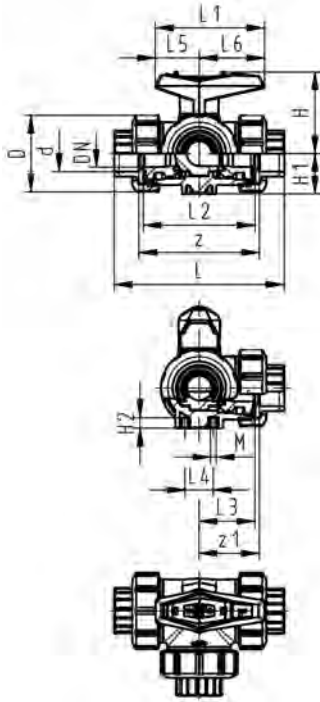
SYGEF Standard
3-Way ball valve type 543
Horizontal/L-port
With fusion sockets metric

Model:

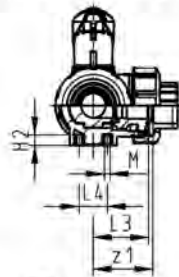
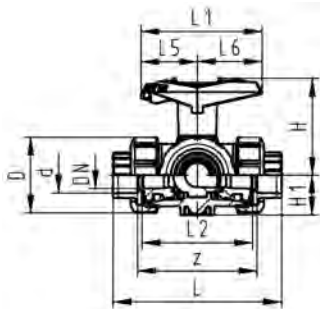
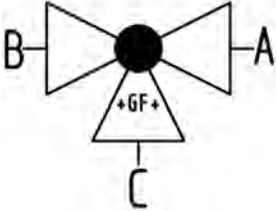
- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
16	10	10	50	175 543 011	0.281
20	15	10	75	175 543 012	0.290
25	20	10	150	175 543 013	0.461
32	25	10	280	175 543 014	0.654
40	32	10	480	175 543 015	1.199
50	40	10	620	175 543 016	1.647
63	50	10	1230	175 543 017	3.227



d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	3/8
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	1/2
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	3/4
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 1/4
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 1/2
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



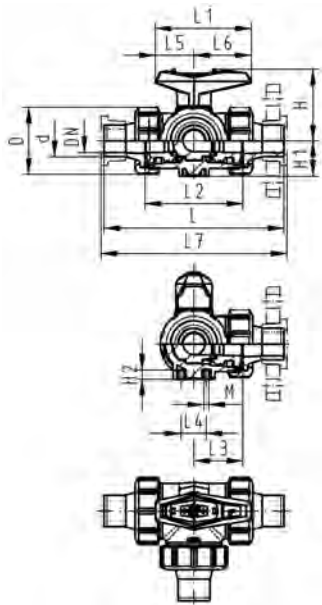
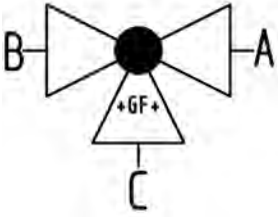
SYGEF Standard
3-Way ball valve type 543
Horizontal/L-port
With lockable handle
With fusion sockets metric

Model:

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Integrated stainless steel mounting inserts
- Multifunctional lever red with ratched setting 45°, lockable
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
16	10	10	50	175 543 641	0.330
20	15	10	75	175 543 642	0.338
25	20	10	150	175 543 643	0.483
32	25	10	280	175 543 644	0.726
40	32	10	480	175 543 645	1.229
50	40	10	620	175 543 646	1.808
63	50	10	1230	175 543 647	3.502

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	79	28	8	110	87	72	36	25	42	45	6	82	41	$\frac{3}{8}$
20	50	79	28	8	112	87	72	36	25	42	45	6	82	41	$\frac{1}{2}$
25	58	88	32	8	129	108	85	43	25	50	58	6	97	49	$\frac{3}{4}$
32	68	94	36	8	146	108	98	49	25	50	58	6	110	55	1
40	84	113	45	9	170	141	118	59	45	66	75	8	132	66	1 $\frac{1}{4}$
50	97	119	51	9	193	141	135	68	45	66	75	8	151	76	1 $\frac{1}{2}$
63	124	141	65	9	244	165	176	88	45	78	87	8	188	94	2



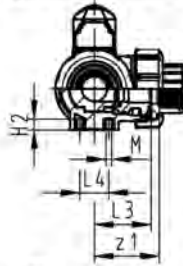
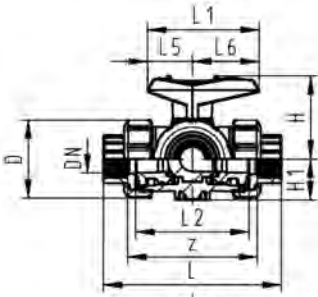
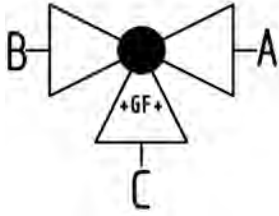
SYGEF Standard
3-Way ball valve type 543
Horizontal/L-port
With socket fusion spigots metric

Model:

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	Weight (kg)
16	10	10	50	175 543 031	0.320
20	15	10	75	175 543 032	0.296
25	20	10	150	175 543 033	0.480
32	25	10	280	175 543 034	0.735
40	32	10	480	175 543 035	1.226
50	40	10	620	175 543 036	1.859
63	50	10	1230	175 543 037	3.624

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	M	closest inch (inch)
16	50	57	28	8	126	77	72	36	25	32	45	133	6	$\frac{3}{8}$
20	50	57	28	8	136	77	72	36	25	32	45	144	6	$\frac{1}{2}$
25	58	67	32	8	159	97	85	43	25	39	58	170	6	$\frac{3}{4}$
32	68	73	36	8	178	97	98	49	25	39	58	191	6	1
40	84	90	45	9	204	128	118	59	45	54	74	223	8	1 $\frac{1}{4}$
50	97	97	51	9	237	128	135	68	45	54	74	256	8	1 $\frac{1}{2}$
63	124	116	65	9	296	152	176	88	45	66	87	319	8	2



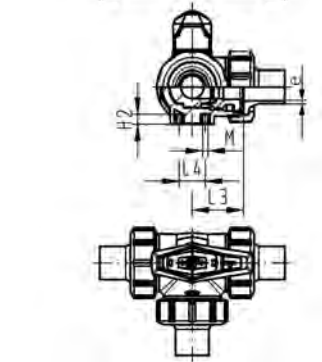
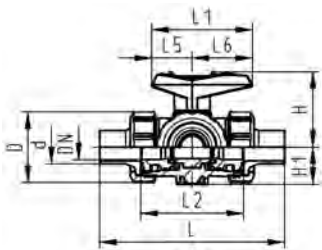
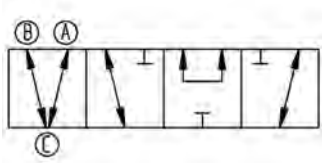
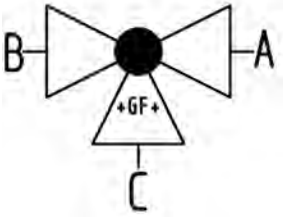
SYGEF Standard
3-Way ball valve type 543
Horizontal/L-port
With threaded sockets NPT

Model:

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

NPT (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	Weight (kg)
3/8	10	10	50	175 543 071	0.312
1/2	15	10	75	175 543 072	0.320
3/4	20	10	150	175 543 073	0.461
1	25	10	280	175 543 074	0.704
1 1/4	32	10	480	175 543 075	1.199
1 1/2	40	10	620	175 543 076	1.778
2	50	10	1230	175 543 077	3.462

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)
3/8	50	57	28	8	112	77	72	36	25	32	45	6	86	43
1/2	50	57	28	8	114	77	72	36	25	32	45	6	80	40
3/4	58	67	32	8	131	97	85	43	25	39	58	6	95	48
1	68	73	36	8	154	97	98	49	25	39	58	6	110	55
1 1/4	84	90	45	9	180	128	118	59	45	54	74	8	132	66
1 1/2	97	97	51	9	203	128	135	68	45	54	74	8	157	79
2	124	116	65	9	258	152	176	88	45	66	87	8	210	105



SYGEF Standard
3-Way ball valve type 543
Horizontal/T-port
With butt fusion spigots IR-Plus metric

Model:

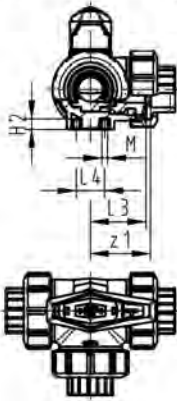
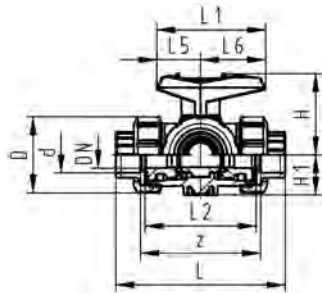
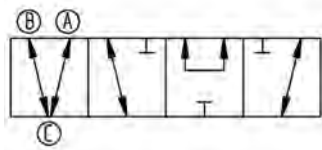
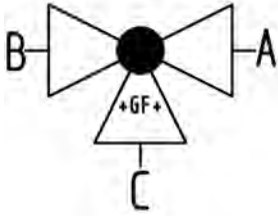
- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
20	15	10	200	175 543 152	0.321
25	20	10	470	175 543 153	0.478
32	25	10	793	175 543 154	0.655
40	32	10	1290	175 543 155	1.212
50	40	10	1910	175 543 156	1.832
63	50	10	3100	175 543 157	3.566

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	57	28	8	146	77	72	36	25	32	45	6	1.9	1/2
25	58	67	32	8	163	97	85	43	25	39	58	6	1.9	3/4
32	68	73	36	8	178	97	98	49	25	39	58	6	2.4	1
40	84	90	45	9	204	128	118	59	45	54	74	8	2.4	1 1/4
50	97	97	51	9	237	128	135	68	45	54	74	8	3.0	1 1/2
63	124	116	65	9	296	152	176	88	45	66	87	8	3.0	2



SYGEF Standard
3-Way ball valve type 543
Horizontal/T-port
With fusion sockets metric



Model:

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	Weight (kg)
16	10	10	140	175 543 111	0.283
20	15	10	200	175 543 112	0.288
25	20	10	470	175 543 113	0.417
32	25	10	793	175 543 114	0.644
40	32	10	1290	175 543 115	1.185
50	40	10	1910	175 543 116	1.613
63	50	10	3100	175 543 117	3.405

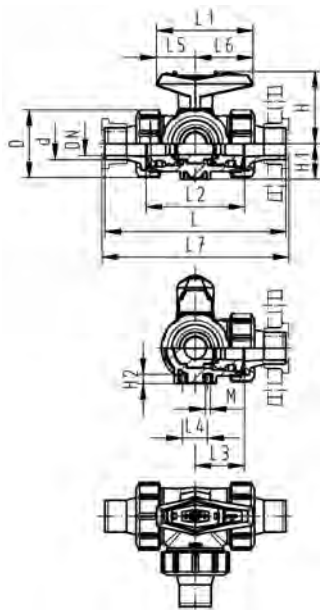
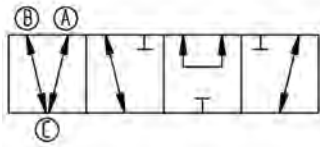
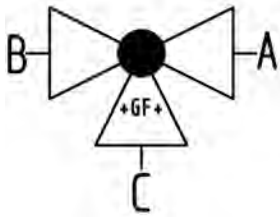
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	$\frac{3}{8}$
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	$\frac{1}{2}$
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	$\frac{3}{4}$
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 $\frac{1}{4}$
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 $\frac{1}{2}$
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



SYGEF Standard
3-Way ball valve type 543
Horizontal/T-port
With socket fusion spigots metric

Model:

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

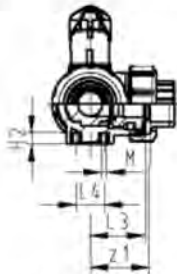
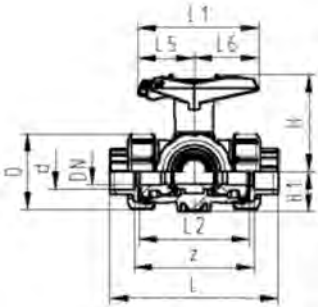
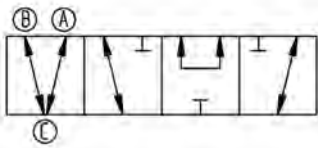
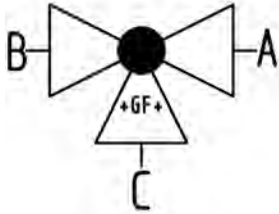


d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	Weight (kg)
16	10	10	140	175 543 131	0.287
20	15	10	200	175 543 132	0.330
25	20	10	470	175 543 133	0.478
32	25	10	793	175 543 134	0.726
40	32	10	1290	175 543 135	1.212
50	40	10	1910	175 543 136	1.832
63	50	10	3100	175 543 137	3.566

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	M	closest inch (inch)
16	50	57	28	8	126	77	72	36	25	32	45	133	6	$\frac{3}{8}$
20	50	57	28	8	136	77	72	36	25	32	45	144	6	$\frac{1}{2}$
25	58	67	32	8	159	97	85	43	25	39	58	170	6	$\frac{3}{4}$
32	68	73	36	8	178	97	98	49	25	39	58	191	6	1
40	84	90	45	9	204	128	118	59	45	54	74	223	8	1 $\frac{1}{4}$
50	97	97	51	9	237	128	135	68	45	54	74	256	8	1 $\frac{1}{2}$
63	124	116	65	9	296	152	176	88	45	66	87	319	8	2



SYGEF Standard
3-Way ball valve type 543
Horizontal/T-port
With lockable handle
With fusion sockets metric



Model:

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Multifunctional lever red with ratched setting 45°, lockable
- Delivery status A-B-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
16	10	10	140	175 543 651	0.329
20	15	10	200	175 543 652	0.337
25	20	10	470	175 543 653	0.480
32	25	10	793	175 543 654	0.717
40	32	10	1290	175 543 655	1.215
50	40	10	1910	175 543 656	1.781
63	50	10	3100	175 543 657	3.444

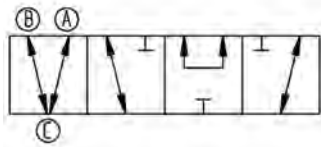
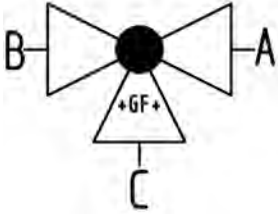
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	79	28	8	110	87	72	36	25	42	45	6	82	41	$\frac{3}{8}$
20	50	79	28	8	112	87	72	36	25	42	45	6	82	41	$\frac{1}{2}$
25	58	88	32	8	129	108	85	43	25	50	58	6	97	49	$\frac{3}{4}$
32	68	94	36	8	146	108	98	49	25	50	58	6	110	55	1
40	84	113	45	9	170	141	118	59	45	66	75	8	132	66	1 $\frac{1}{4}$
50	97	119	51	9	193	141	135	68	45	66	75	8	151	76	1 $\frac{1}{2}$
63	124	141	65	9	244	165	176	88	45	78	87	8	188	94	2



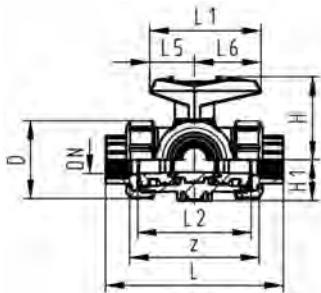
SYGEF Standard
3-Way ball valve type 543
Horizontal/T-port
With threaded sockets NPT

Model:

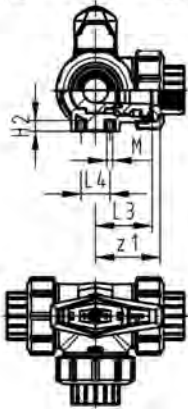
- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

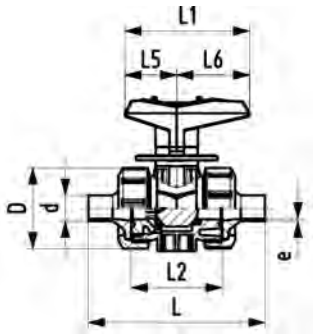


NPT (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
3/8	10	10	140	175 543 171	0.311
1/2	15	10	200	175 543 172	0.319
3/4	20	10	470	175 543 173	0.458
1	25	10	793	175 543 174	0.695
1 1/4	32	10	1290	175 543 175	1.185
1 1/2	40	10	1910	175 543 176	1.751
2	50	10	3100	175 543 177	3.405



NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)
3/8	50	57	28	8	112	77	72	36	25	32	45	6	86	43
1/2	50	57	28	8	114	77	72	36	25	32	45	6	80	40
3/4	58	67	32	8	131	97	85	43	25	39	58	6	95	48
1	68	73	36	8	154	97	98	49	25	39	58	6	110	55
1 1/4	84	90	45	9	180	128	118	59	45	54	74	8	132	66
1 1/2	97	97	51	9	203	128	135	68	45	54	74	8	157	79
2	124	116	65	9	258	152	176	88	45	66	87	8	210	105





SYGEF Standard
Metering ball valve type 523
With mounting inserts
With butt fusion spigots IR-Plus metric

Model:

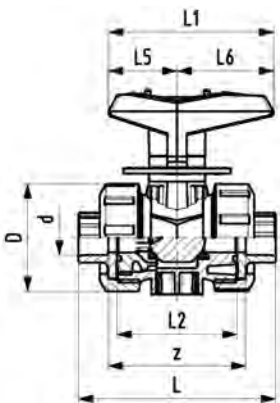
- Material: PVDF
- Micro-doser
- Excellent control characteristics
- Designed for easy installation and removal
- Ball seals PTFE
- Angle of operation 180° with scale
- Integrated stainless steel mounting inserts
- Z-length, end connectors and union nuts **not compatible** to Type 323

Option:

- Other materials on demand

d	DN	PN	kv-value	FKM	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
			(l/min)		
20	15	16	11	175 523 492	0.200

d	D	H	H1	H2	L	L1	L2	L4	L5	L6	M	e	closest
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	inch
													(inch)
20	50	68	27	12	130	77	56	25	32	45	M6	1.9	½



SYGEF Standard
Metering ball valve type 523
With mounting inserts
With fusion sockets metric

Model:

- Material: PVDF
- Micro-doser
- Excellent control characteristics
- Designed for easy installation and removal
- Ball seals PTFE
- Angle of operation 180° with scale
- Integrated stainless steel mounting inserts
- Z-length, end connectors and union nuts **not compatible** to Type 323

Option:

- Other materials on demand

d	DN	PN	kv-value	FKM	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
			(l/min)		
16	10	16	11	175 523 411	0.200
20	15	16	20	175 523 412	0.200

d	D	H	H1	H2	L	L1	L2	L4	L5	L6	M	z	closest
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	inch
													(inch)
16	50	68	27	12	93	77	56	25	32	45	M6	67	¾
20	50	68	27	12	95	77	56	25	32	45	M6	66	½



Laboratory Ball Valve Type 522 PVDF With female thread-male thread

Model:

- Disconnection one end only
- Ball seal PTFE

Hose Nozzle

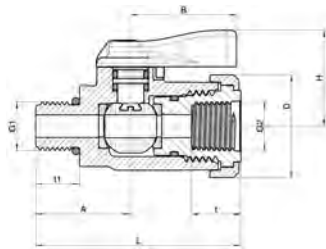
Option:

- Blind plug
- Double nipple
- Clip tie
- Locking and metering ring



d (mm)	DN (mm)	PN (bar)	FKM Code	SP	Weight (kg)
10	6	10	175 522 070	1	0.050
10	6	10	175 522 170	1	0.050

d (mm)	G1 (mm)	G2 (mm)	A (mm)	B (mm)	D (mm)	H (mm)	L (mm)	t (mm)	t1 (mm)
10	1/4" BSP	1/4" BSP	26.0	28.2	28	25.5	56.0	13.2	12.0
10	1/4" NPT	1/4" NPT	28.5	28.2	28	26.0	58.5	13.2	14.5



Diaphragm Valve Type 604/605



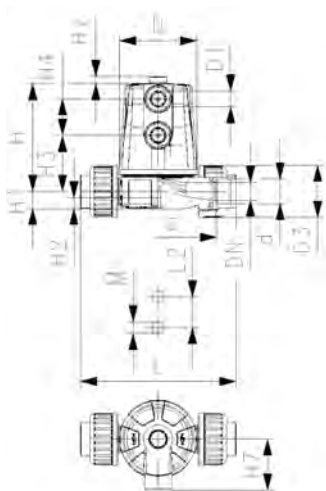
SYGEF Standard Diaphragm valve type 604 Unions with fusion socket metric

Model:

- Material: PVDF
- Compact full plastic design without screws
- High flow rate
- Actuator housing with thread for easy maintenance
- Quick opening & closing times
- For easy installation and removal
- Market standard installation length

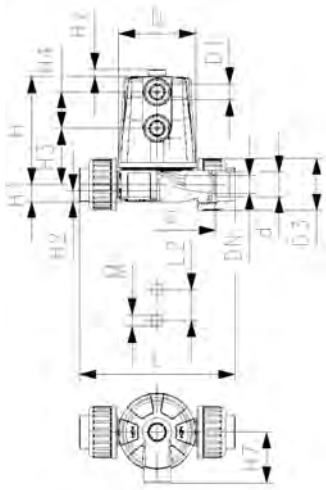
Option:

- Individual configuration of the valve



Actuator	d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)	PTFE/EPDM Code
FC	20	15	6	125	185 604 062	0.45	185 604 032
FO	20	15	6	125	185 604 064	0.42	185 604 034
DA	20	15	6	125	185 604 065	0.40	185 604 035

D	D1_G	D3	H	H1	H2	H3	H4	H7	L	L2	M	z	Lift = Hx
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
65	1/4	43	89	14	12	46	30	42	128	25	M6	96	6
65	1/4	43	89	14	12	46	30	42	128	25	M6	96	6
65	1/4	43	89	14	12	46	30	42	128	25	M6	96	6



SYGEF Standard
Diaphragm valve type 604
Unions with butt fusion spigot metric

Model:

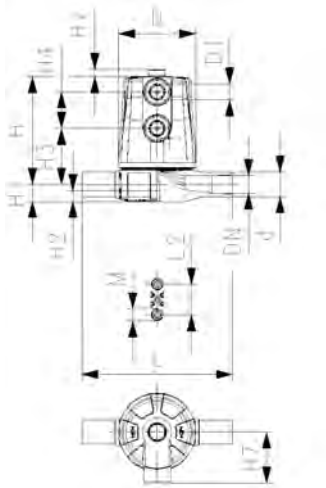
- Material: PVDF
- Compact full plastic design without screws
- High flow rate
- Actuator housing with thread for easy maintenance
- Quick opening & closing times
- For easy installation and removal
- Market standard installation length

Option:

- Individual configuration of the valve

Actuator	d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	Weight (kg)	PTFE/EPDM Code
FC	20	15	6	125	185 604 162	0.45	185 604 132
FO	20	15	6	125	185 604 164	0.42	185 604 134
DA	20	15	6	125	185 604 165	0.40	185 604 135

D	D1_G	D3	H	H1	H2	H3	H4	H7	L	L2	M	z	Lift = Hx
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
65	¼	43	89	14	12	46	30	42	196	25	M6	100	6
65	¼	43	89	14	12	46	30	42	196	25	M6	100	6
65	¼	43	89	14	12	46	30	42	196	25	M6	100	6



SYGEF Standard
Diaphragm valve type 605
With butt fusion spigot metric

Model:

- Material: PVDF
- Compact full plastic design without screws
- High flow rate
- Actuator housing with thread for easy maintenance
- Quick opening & closing times
- For easy installation and removal
- Market standard installation length

Option:

- Individual configuration of the valve

Actuator	d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	Weight (kg)	PTFE/EPDM Code
FC	20	15	6	125	185 605 162	0.37	185 605 132
FO	20	15	6	125	185 605 164	0.34	185 605 134
DA	20	15	6	125	185 605 165	0.35	185 605 135

D	D1_G	D3	H	H1	H2	H3	H4	H7	L	L2	e	M	Lift = Hx
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
65	¼	43	89	14	12	46	30	42	124	25	1.9	M6	6
65	¼	43	89	14	12	46	30	42	124	25	1.9	M6	6
65	¼	43	89	14	12	46	30	42	124	25	1.9	M6	6

Diaphragm Valve Type 604 / 605

Packs a punch



The full-plastic diaphragm valve 604 / 605 with integrated pneumatic actuator from GF Piping Systems ensures best flow performance in compact design. With this corrosion free valve we offer an additional product with the most economic price-performance ratio which is suitable for many applications.

Easy installation and operation

- The compact design enables installation in limited spaces
- No re-torquing needed due to full plastic design without metal parts and screws
- Radially dismountable due to true unions
- Maintenance free
- Same installation length as all GF diaphragm valves and market standard valves
- Integrated optical position feedback
- QR-Code on valve leads to online available product documents

High safety

- Uniform temperature expansion of plastic/plastic connection prevents leakages
- High chemical resistance due to large material range

High Flexibility

- Operation options: FC, FO, DA
- Diaphragms available in PTFE, FPM, EPDM for neutral and aggressive media
- Various connection options with true union or spigot version
- Available Standards: Metric, ASTM, BS, JIS
- Best quality and reliability for high number of cycles

Best flow performance

- Linear flow characteristic for simple valve control
- Optimized flow geometry with soft transitions and radii doubles the flow rate
- Suitable for media with low number of particles/solids

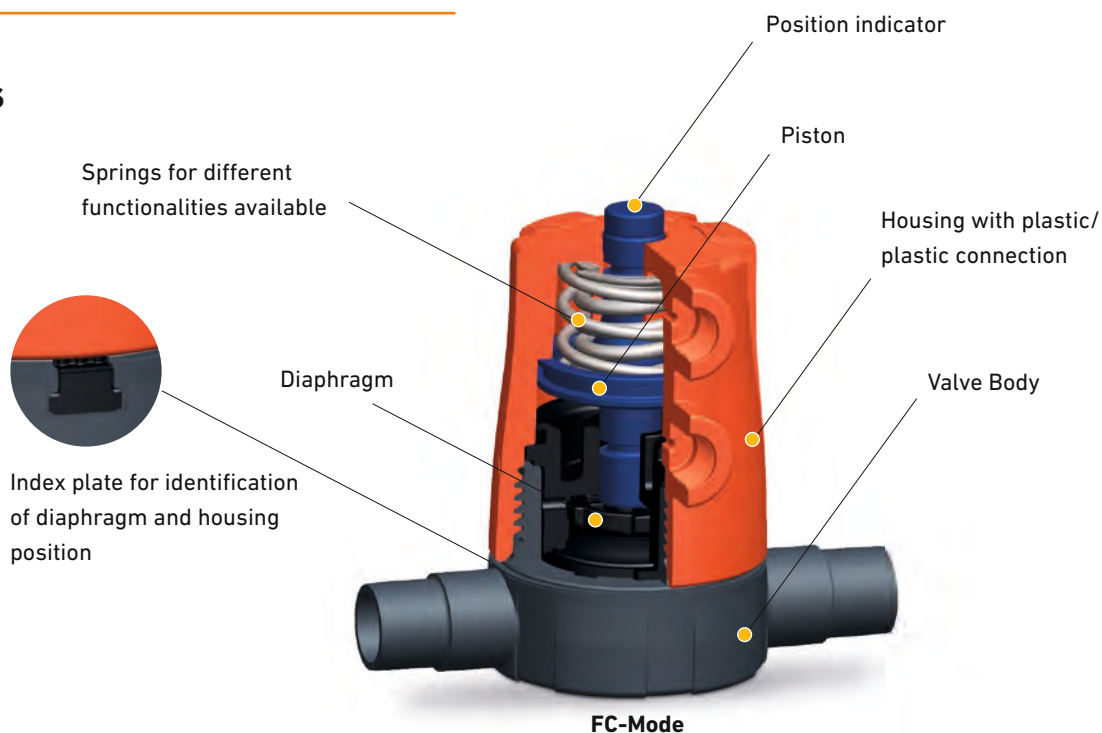
Applications

- Chemical Process Industry
- Dosing
- Water Treatment

+ Technical Data

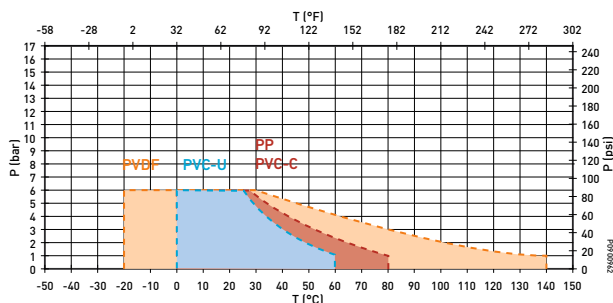
Dimension	DN 15 (1/2")
Pressure Rating	PN 6
Body	PVC-U / CPVC (Polyvinylchlorid) PP-H (Polypropylen) PVDF (Polyvinylidenfluorid) Other materials on request
Diaphragms	PTFE with EPDM Backing Diaphragm PTFE with FPM Backing Diaphragm EPDM FPM
Valve Housing	PP-GF (orange)
Connections	Type 604: Body with true union connection to match all standard GF unions and end-connections Type 605: Body with cementing resp. welding spigots Available on request: Various inserts from the GF range
Mounting	Threaded inserts for safe mounting on valve body
Flow	Double flow rate compared to a typical diaphragm valve
Standards	ISO 9393 EN 12266

+ Features



Pressure-Temperature Diagram

The following Pressure-Temperature Diagram is based on a lifetime of 25 years with water or similar media.



Diaphragm Valve Type 604 / 605

DN	d	inch	Kv 100 l/min	m ³ /h	Cv100 gpm
15	20	1/2"	125	7,5	0,55

Kv Values

KV 100 at pressure differential p = 1 bar

CV100 at pressure differential p = 1 psi

Diaphragm valves



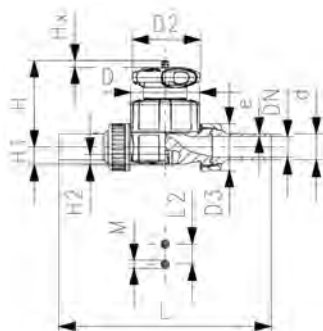
SYGEF Standard Diaphragm valve type 514 With butt fusion spigots metric

Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve
- Self adjusting multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FKM Code
20	15	10	125	185 514 132	0.381	185 514 152
25	20	10	271	185 514 133	0.555	185 514 153
32	25	10	481	185 514 134	1.048	185 514 154
40	32	10	759	185 514 135	1.401	185 514 155
50	40	10	1263	185 514 136	2.036	185 514 156
63	50	10	1728	185 514 137	3.395	185 514 157

d (mm)	D (mm)	D2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	43	73	14	12	196	25	M6	1.9	7	½
25	80	65	53	81	18	12	221	25	M6	1.9	10	¾
32	88	87	60	107	22	12	234	25	M6	2.4	13	1
40	101	87	74	115	26	15	260	45	M8	2.4	15	1 ¼
50	117	135	82	148	32	15	284	45	M8	3.0	19	1 ½
63	144	135	100	166	39	15	321	45	M8	3.0	25	2



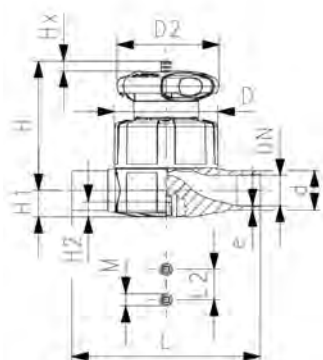
SYGEF Standard Diaphragm valve type 515 With butt fusion spigots metric

Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

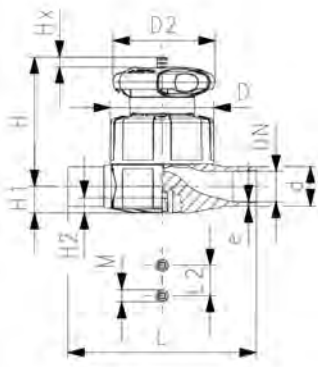
Option:

- Individual configuration of the valve
- Self adjusting multifunctional module with integrated limit switches



d (mm)	PTFE/EPDM Code	Weight (kg)
20	185 515 132	0.280
25	185 515 133	0.514
32	185 515 134	0.677
40	185 515 135	0.942
50	185 515 136	2.492
63	185 515 137	2.465

table continued on the next page



d (mm)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	73	14	12	124	25	M6	1.9	7	½
25	80	65	81	18	12	144	25	M6	1.9	10	¾
32	88	87	107	22	12	155	25	M6	2.4	13	1
40	101	87	115	26	15	176	45	M8	2.4	15	1 ¼
50	117	135	148	32	15	193	45	M8	3.0	19	1 ½
63	144	135	166	39	15	223	45	M8	3.0	25	2



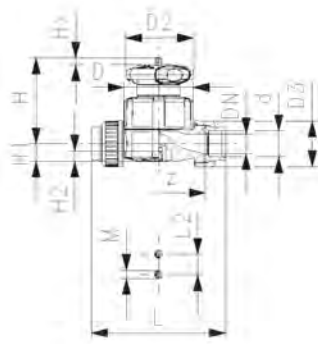
SYGEF Standard
Diaphragm valve type 514
With fusion sockets metric

Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve
- Self adjusting multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	PTFE/EPDM Code	Weight (lb)	PTFE/FKM Code	Weight (kg)
20	15	10	125	185 514 032	0.789	185 514 052	0.349
25	20	10	271	185 514 033	1.204	185 514 053	0.546
32	25	10	481	185 514 034	2.136	185 514 054	0.969
40	32	10	759	185 514 035	3.710	185 514 055	1.683
50	40	10	1263	185 514 036	6.464	185 514 056	2.932
63	50	10	1728	185 514 037	6.603	185 514 057	2.995

d (mm)	D (mm)	D2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	43	73	14	12	128	25	M6	100	7	½
25	80	65	53	81	18	12	150	25	M6	118	10	¾
32	88	87	60	107	22	12	162	25	M6	126	13	1
40	101	87	74	115	26	15	184	45	M8	144	15	1 ¼
50	117	135	82	148	32	15	210	45	M8	164	19	1 ½
63	144	135	100	166	39	15	248	45	M8	194	25	2



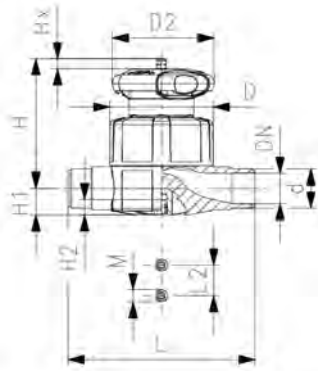
SYGEF Standard
Diaphragm valve type 515
 With socket fusion spigots metric

Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

Option:

- Individual configuration of the valve
- Self adjusting multifunctional module with integrated limit switches



d (mm)	PTFE/EPDM Code	Weight (kg)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)	closest inch (inch)
20	185 515 032	0.273	65	65	73	14	12	124	25	M6	7	1/2
25	185 515 033	0.426	80	65	81	18	12	144	25	M6	10	3/4
32	185 515 034	0.684	88	87	107	22	12	154	25	M6	13	1
40	185 515 035	1.415	101	87	115	26	15	174	45	M8	15	1 1/4
50	185 515 036	1.652	117	135	148	32	15	194	45	M8	19	1 1/2
63	185 515 037	2.569	144	135	166	39	15	223	45	M8	25	2



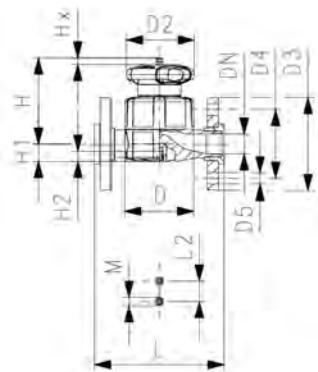
SYGEF Standard
Diaphragm valve type 517
 With backing flanges PP-V metric/BS

Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

Option:

- Individual configuration of the valve
- Self adjusting multifunctional module with integrated limit switches



d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value (Δp=1 bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FKM Code	Weight (kg)
20	15	1/2	10	125	185 517 132	0.586	185 517 152	0.586
25	20	3/4	10	271	185 517 133	0.796	185 517 153	0.796
32	25	1	10	481	185 517 134	1.064	185 517 154	1.064
40	32	1 1/4	10	759	185 517 135	2.001	185 517 155	2.001
50	40	1 1/2	10	1263	185 517 136	2.369	185 517 156	2.369
63	50	2	10	1728	185 517 137	3.586	185 517 157	3.586

D (mm)	D2 (mm)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)
65	65	95	65	14	73	14	12	130	25	M6	7
80	65	105	75	14	81	18	12	150	25	M6	10
88	87	115	85	14	107	22	12	160	25	M6	13
101	87	140	100	18	115	26	15	180	45	M8	15
117	135	150	110	18	148	32	15	200	45	M8	19
144	135	165	125	18	166	39	15	230	45	M8	25



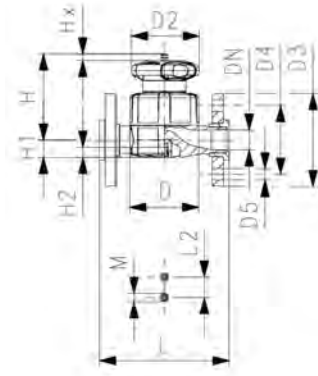
SYGEF Standard
Diaphragm valve type 517
With backing flanges PP-V Inch ANSI

Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Jointing face serrated
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Individual configuration of the valve
- Self adjusting multifunctional module with integrated limit switches



Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FKM Code
½	15	10	125	185 517 732	0.586	185 517 752
¾	20	10	271	185 517 733	0.796	185 517 753
1	25	10	481	185 517 734	1.050	185 517 754
1 ¼	32	10	759	185 517 735	2.001	185 517 755
1 ½	40	10	1263	185 517 736	3.147	185 517 756
2	50	10	1728	185 517 737	3.514	185 517 757

Size (inch)	D (mm)	D2 (mm)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)
½	65	65	95	60	16	73	14	12	130	25	M6	7
¾	80	65	105	70	16	81	18	12	150	25	M6	10
1	88	87	115	79	16	107	22	12	160	25	M6	13
1 ¼	101	87	140	89	16	115	26	15	180	45	M8	15
1 ½	117	135	150	98	16	148	32	15	200	45	M8	19
2	144	135	165	121	19	166	39	15	230	45	M8	25

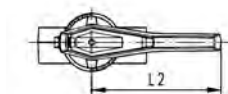
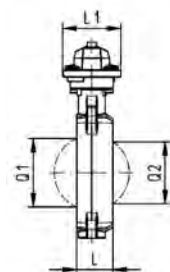
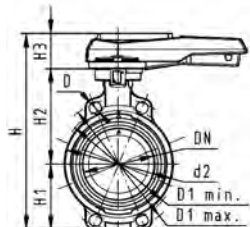
Butterfly valves



SYGEF Standard Butterfly valve type 567 Hand lever with ratchet settings

Model:

- Material: PVDF
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version



d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	PTFE Code	Weight (kg)
63	50	2	10	740	175 567 002	175 567 202	1.080
75	65	2 ½	10	1500	175 567 003	175 567 203	1.192
90	80	3	10	2400	175 567 004	175 567 204	1.992
110	100	4	10	3800	175 567 005	175 567 205	2.072
140	125	5	10	8600	175 567 006	175 567 206	2.667
160	150	6	10	11400	175 567 007	175 567 207	3.887
225	200	8	10	19900	175 567 008	175 567 208	7.242
280	250	10	10	34000	175 567 009	175 567 209	14.623
315	300	12	10	50000	175 567 010	175 567 210	19.513

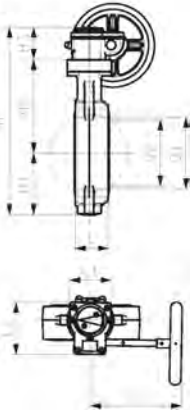
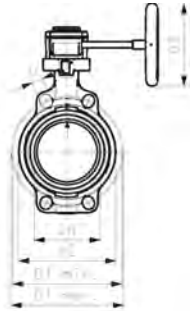
d (mm)	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	104	19	120	125	264	77	134	54	45	106	205	40	
75	115	19	140	145	277	83	140	54	46	106	205	54	35
90	131	19	150	160	289	89	146	54	49	106	205	67	50
110	161	19	175	191	325	104	167	55	56	106	255	88	74
140	187	23	210	216	352	117	181	55	64	106	255	113	97
160	215	24	241	241	373	130	189	55	72	106	255	139	123
225	267	23	290	295	435	158	210	67	73	140	408	178	169
280	329	25	353	362	554	205	264	85	113	149	408	210	207
315	379	25	400	432	598	228	285	85	113	149	408	256	253

SYGEF Standard
Butterfly valve type 567
Reduction gear with handwheel



Model:

- Material: PVDF
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220



d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)	PTFE Code	Weight (kg)
63	50	2	10	740	175 567 022	3.118	175 567 222	3.118
75	65	2 ½	10	1500	175 567 023	3.230	175 567 223	3.230
90	80	3	10	2400	175 567 024	3.410	175 567 224	3.534
110	100	4	10	3800	175 567 025	4.062	175 567 225	4.062
140	125	5	10	8600	175 567 026	4.657	175 567 226	4.657
160	150	6	10	11400	175 567 027	5.974	175 567 227	5.877
225	200	8	10	19900	175 567 028	7.797	175 567 228	7.810
280	250	10	10	34000	175 567 029	15.441	175 567 229	15.410
315	300	12	10	50000	175 567 030	20.763	175 567 230	36.000

d (mm)	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)
63	104	19	120	125	160	273	77	134	62	45	78	112	179	40
75	115	19	140	145	160	285	83	140	62	46	78	112	179	54
90	131	19	150	160	160	297	89	146	62	49	78	112	179	67
110	160	19	175	191	160	333	104	167	62	56	78	112	179	88
140	187	23	210	216	160	360	117	181	62	64	78	112	179	113
160	215	24	241	241	160	381	130	189	62	72	78	112	179	139
225	267	23	290	295	160	430	158	210	62	73	78	112	179	178
280	329	25	353	362	200	555	205	264	69	113	97	130	198	210
315	379	25	400	432	200	605	228	285	69	113	97	130	198	256

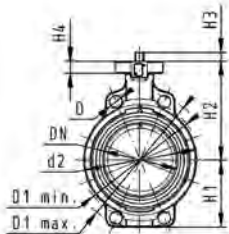
d (mm)	Q2 (mm)
63	
75	35
90	50
110	74
140	97
160	123
225	169
280	207
315	253



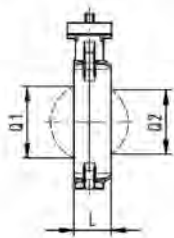
SYGEF Standard
Butterfly valve type 567
Bare shaft

Model:

- Material: PVDF
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Interface F07 for the dimensions DN50-200 according to DIN/ISO 5211
- Interface F10 for the dimensions DN250-300 according to DIN/ISO 5211



d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)	PTFE Code	Weight (kg)
63	50	2	10	740	175 567 822	0.858	175 567 842	0.858
75	65	2 ½	10	1500	175 567 823	0.970	175 567 843	0.970
90	80	3	10	2400	175 567 824	1.162	175 567 844	1.150
110	100	4	10	3800	175 567 825	1.802	175 567 845	1.802
140	125	5	10	8600	175 567 826	2.397	175 567 846	2.397
160	150	6	10	11400	175 567 827	3.617	175 567 847	3.617
225	200	8	10	19900	175 567 828	5.738	175 567 848	5.738
280	250	10	10	34000	175 567 829	12.673	175 567 849	12.673
315	300	12	10	50000	175 567 830	17.563	175 567 850	17.563



d (mm)	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	D3 (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	Q1 (mm)
63	104	19	120	125	70	90	222	77	134	27	23	11	45	40
75	115	19	140	145	70	90	235	83	140	27	23	11	46	54
90	131	19	150	160	70	90	247	89	146	27	23	11	49	67
110	161	19	175	191	70	90	287	104	167	16	23	14	56	88
140	187	23	210	216	70	90	313	117	181	16	23	14	64	113
160	215	24	241	241	70	90	335	130	189	19	23	17	72	139
225	267	23	290	295	70	90	387	158	210	19	23	17	73	178
280	329	25	353	362	102	125	509	205	264	40	23	22	113	210
315	379	25	400	432	102	125	553	228	285	40	23	22	113	256

d (mm)	Q2 (mm)
63	
75	35
90	50
110	74
140	97
160	123
225	169
280	207
315	253



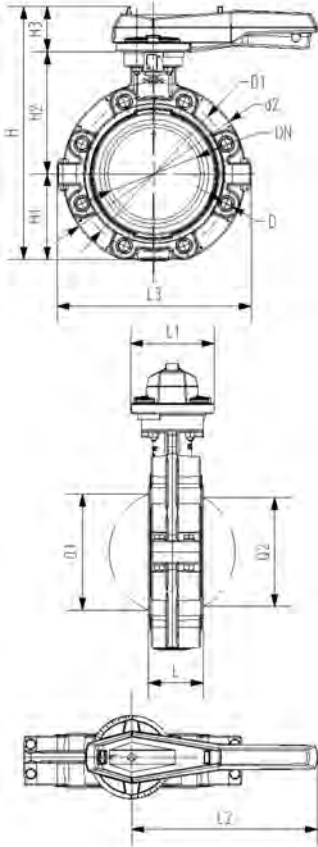
SYGEF Standard
Lugstyle butterfly valve type 578
Hand lever with ratchet settings

Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)	PTFE Code
63	2	50	10	740	175 578 002	1.800	175 578 202
75	2 ½	65	10	1500	175 578 003	1.895	175 578 203
90	3	80	10	2400	175 578 004	2.251	175 578 204
110	4	100	10	3800	175 578 005	3.146	175 578 205
140	5	125	10	8600	175 578 006	4.660	175 578 206
160	6	150	10	11400	175 578 007	6.430	175 578 207
225	8	200	10	19900	175 578 008	8.625	175 578 208
280	10	250	10	34000	175 578 009	19.528	175 578 209
315	12	300	10	50000	175 578 010	26.106	175 578 210

d (mm)	D	d2 (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)	Code
63	M16	160	125	265	77	134	54	45	106	205	165	40		
75	M16	180	145	277	83	140	54	46	106	205	182	54	35	
90	M16	195	160	289	89	146	54	49	106	205	210	67	50	
110	M16	226	180	326	106	167	55	56	106	255	240	88	74	
140	M16	258	210	357	121	181	55	64	106	255	272	113	97	
160	M20	284	240	377	133	189	55	72	106	255	300	139	123	
225	M20	341	295	436	159	210	67	73	140	408	360	178	169	
280	M20	412	350	536	205	264	67	113	140	408	440	210	207	
315	M20	482	400	586	234	285	67	113	140	408	510	256	253	



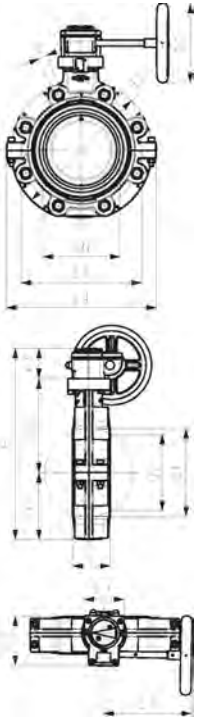
SYGEF Standard
Lugstyle butterfly valve type 578
Reduction gear with handwheel

Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
63	2	50	10	740	175 578 022	3.562
75	2 ½	65	10	1500	175 578 023	3.721
90	3	80	10	2400	175 578 024	3.929
110	4	100	10	3800	175 578 025	4.834
140	5	125	10	8600	175 578 026	6.348
160	6	150	10	11400	175 578 027	8.109
225	8	200	10	19900	175 578 028	9.353
280	10	250	10	34000	175 578 029	21.210
315	12	300	10	50000	175 578 030	27.746

d (mm)	d2 (mm)	D	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	Q1 (mm)	Q2 (mm)
63	160	M16	125	160	273	77	134	62	45	78	112	179	165	40	
75	180	M16	145	150	285	83	140	62	46	78	112	179	182	54	35
90	195	M16	160	150	297	89	146	62	49	78	112	179	210	67	50
110	226	M16	180	150	335	106	167	62	56	78	112	179	240	88	74
140	258	M16	210	150	364	121	181	62	64	78	112	179	272	113	97
160	284	M20	240	160	384	133	189	62	72	78	112	179	300	139	123
225	341	M20	295	160	431	159	210	62	73	78	112	179	360	178	169
280	412	M20	350	200	555	205	264	69	113	97	130	198	440	210	207
315	482	M20	400	200	605	234	285	69	113	97	130	198	510	256	253

SYGEE Standard
Lugstyle butterfly valve type 578
Bare shaft

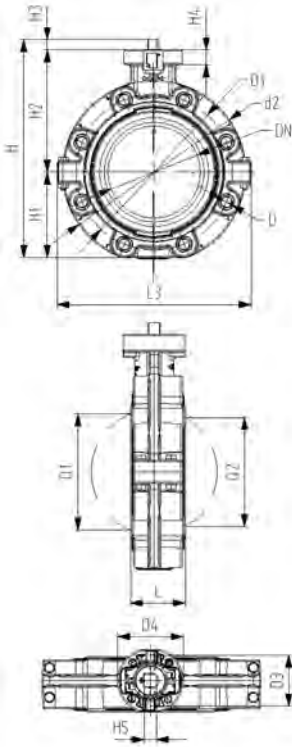


Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Interface F07 according to DIN/ISO 5211
- Interface F10 for the dimensions DN250-300 according to DIN/ISO 5211

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
63	2	50	10	740	175 578 822	1.299
75	2 ½	65	10	1500	175 578 823	1.456
90	3	80	10	2400	175 578 824	1.701
110	4	100	10	3800	175 578 825	2.606
140	5	125	10	8600	175 578 826	4.120
160	6	150	10	11400	175 578 827	5.881
225	8	200	10	19900	175 578 828	7.125
280	10	250	10	34000	175 578 829	17.880
315	12	300	10	50000	175 578 830	24.416

d (mm)	d2 (mm)	D	D1 (mm)	D3 (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	Q1 (mm)	Q2 (mm)
63	160	M16	125	70	90	238	77	134	27	23	11	45	40	
75	180	M16	145	70	90	250	83	140	27	23	11	46	54	35
90	195	M16	160	70	90	262	89	146	27	23	11	49	67	50
110	226	M16	180	70	90	289	106	167	16	23	14	56	88	74
140	258	M16	210	70	90	318	121	181	16	23	14	64	113	97
160	284	M20	240	70	90	341	133	189	19	23	17	72	139	123
225	341	M20	295	70	90	388	159	210	19	23	17	73	178	169
280	412	M20	350	102	125	509	205	264	40	23	22	113	210	207
315	482	M20	400	102	125	559	234	285	40	23	22	113	256	253



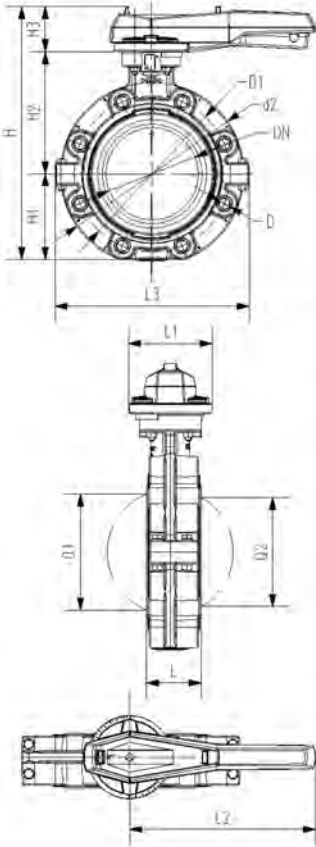
SYGEF Standard
Lugstyle butterfly valve 578 ANSI
Hand lever with ratchet settings

Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
63	2	50	10	740	175 578 102	1.800
75	2 ½	65	10	1500	175 578 103	1.895
90	3	80	10	2400	175 578 104	2.251
110	4	100	10	3800	175 578 105	3.146
140	5	125	10	8600	175 578 106	4.660
160	6	150	10	11400	175 578 107	6.430
225	8	200	10	19900	175 578 108	8.625
280	10	300	10	34000	175 578 109	19.528
315	12	250	10	50000	175 578 110	26.106

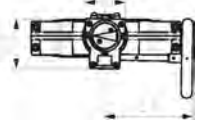
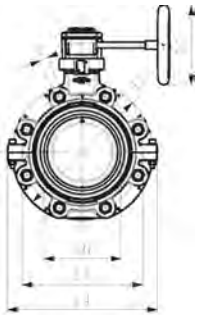
d (mm)	Size (inch)	d2 (mm)	D	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	2	160	UNC 5/8	120.6	265	77	134	54	45	106	205	165	40	
75	2 ½	180	UNC 5/8	139.7	277	83	140	54	46	106	205	182	54	35
90	3	195	UNC 5/8	152.4	289	89	146	54	49	106	205	210	67	50
110	4	226	UNC 5/8	190.5	328	106	167	55	56	106	255	240	88	74
140	5	258	UNC 3/4	215.9	357	121	181	55	64	106	255	272	113	97
160	6	284	UNC 3/4	241.3	377	133	189	55	72	106	255	300	139	123
225	8	341	UNC 3/4	298.4	436	159	210	67	73	140	408	360	178	169
280	10	412	UNC 7/8	362.0	536	205	264	67	114	140	408	440	210	207
315	12	482	UNC 7/8	431.8	586	234	285	67	115	140	408	510	256	253

SYGFE Standard
Lugstyle butterfly valve 578 ANSI
Reduction gear with handwheel



Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150

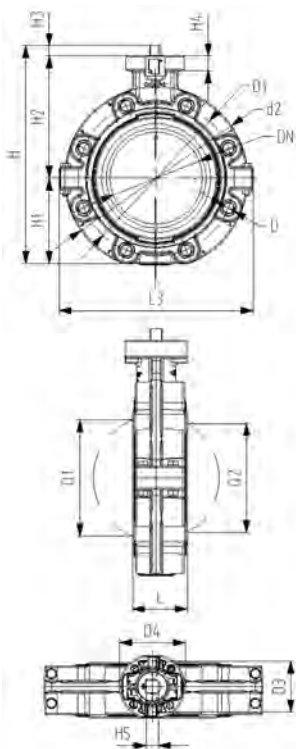


d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)	PTFE Code
63	2	50	10	740	175 578 122	3.562	175 578 222
75	2 ½	65	10	1500	175 578 123	3.721	175 578 223
90	3	80	10	2400	175 578 124	3.929	175 578 224
110	4	100	10	3800	175 578 125	4.834	175 578 225
140	5	125	10	8600	175 578 126	6.348	175 578 226
160	6	150	10	11400	175 578 127	8.109	175 578 227
225	8	200	10	19900	175 578 128	9.353	175 578 228
280	10	250	10	34000	175 578 129	21.210	175 578 229
315	12	300	10	50000	175 578 130	27.746	175 578 230

d (mm)	Size (inch)	d2 (mm)	D	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)
63	2	160	UNC 5/8	120.6	160	273	77	134	62	45	78	112	179	165
75	2 ½	180	UNC 5/8	139.7	150	285	83	140	62	46	78	112	179	182
90	3	195	UNC 5/8	152.4	150	297	89	146	62	49	78	112	179	210
110	4	226	UNC 5/8	190.5	150	335	106	167	62	56	78	112	179	240
140	5	258	UNC 3/4	215.9	150	364	121	181	62	64	78	112	179	272
160	6	284	UNC 3/4	241.3	160	384	133	189	62	72	78	112	179	300
225	8	341	UNC 3/4	298.4	160	431	159	210	62	73	78	112	179	360
280	10	412	UNC 7/8	362.0	200	555	205	264	69	113	97	130	198	440
315	12	482	UNC 7/8	431.8	200	605	234	285	69	113	97	130	198	510

d (mm)	Size (inch)	Q1 (mm)	Q2 (mm)
63	2	40	
75	2 ½	54	35
90	3	67	50
110	4	88	74
140	5	113	97
160	6	139	123
225	8	178	169
280	10	210	207
315	12	256	253

SYGEF Standard
Lugstyle butterfly valve 578 ANSI
Bare shaft



Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Interface F10 for the dimensions DN250-300 according to DIN/ISO 5211
- Interface F07 according to DIN/ISO 5211

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)

d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
63	2	50	10	740	175 578 922	1.299
75	2 ½	65	10	1500	175 578 923	1.456
90	3	80	10	2400	175 578 924	1.701
110	4	100	10	3800	175 578 925	2.606
140	5	125	10	8600	175 578 926	4.120
160	6	150	10	11400	175 578 927	5.881
225	8	200	10	19900	175 578 928	7.125
280	10	250	10	34000	175 578 929	17.880
315	12	300	10	50000	175 578 930	24.416

d (mm)	Size (inch)	d2 (mm)	D	D1 (mm)	D3 (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L3 (mm)
63	2	160	UNC 5/8	120.6	70	90	238	77	134	27	23	11	45	165
75	2 ½	180	UNC 5/8	139.7	70	90	250	83	140	27	23	11	46	182
90	3	195	UNC 5/8	152.4	70	90	262	89	146	27	23	11	49	210
110	4	226	UNC 5/8	190.5	70	90	289	106	167	16	23	14	56	240
140	5	258	UNC 3/4	215.9	70	90	318	121	181	16	23	14	64	272
160	6	285	UNC 3/4	241.3	70	90	341	133	189	19	23	17	72	300
225	8	341	UNC 3/4	298.4	70	90	388	159	210	19	23	17	73	360
280	10	412	UNC 7/8	362.0	102	125	509	205	264	40	23	22	113	440
315	12	482	UNC 7/8	431.8	102	125	559	234	285	40	23	22	113	510

d (mm)	Size (inch)	Q1 (mm)	Q2 (mm)
63	2	40	
75	2 ½	54	35
90	3	67	50
110	4	88	74
140	5	113	97
160	6	139	123
225	8	178	169
280	10	210	207
315	12	256	253

Pressure regulating valves

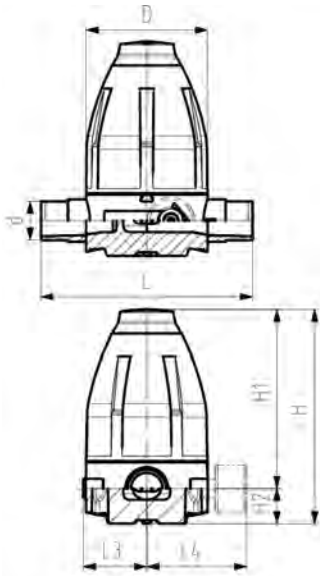


SYGEF Standard
Pressure reducing valve type 582
With butt fusion spigots metric
Without manometer

Model:

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request
 Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings FKM Code	Weight (kg)
20	15	10	185 582 012	0.700
25	20	10	185 582 013	1.550
32	25	10	185 582 014	1.560
40	32	10	185 582 015	4.370
50	40	10	185 582 016	4.400
63	50	10	185 582 017	4.520

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L3 (mm)	M	closest inch (inch)
20	79	132	111	21	14	150	42	M6	½
25	100	177	148	29	14	190	53	M6	¾
32	100	177	148	29	14	190	53	M6	1
40	147	251	207	44	21	240	76	M8	1 ¼
50	147	251	207	44	21	240	76	M8	1 ½
63	147	251	207	44	21	260	76	M8	2



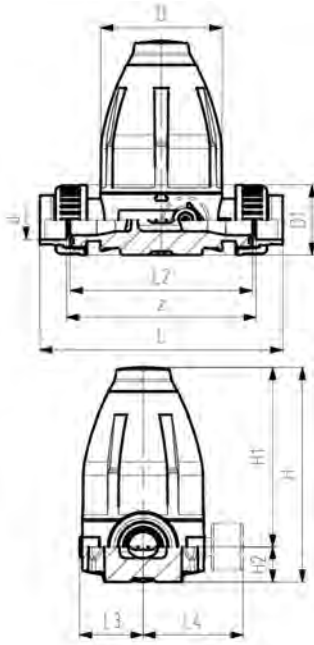
SYGEF Standard
Pressure reducing valve type 582
With fusion sockets metric
Without manometer

Model:

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request

Manometer on request



d	DN	PN	O-rings	Weight
(mm)	(mm)	(bar)	FKM	(kg)
			Code	
20	15	10	185 582 112	0.780
25	20	10	185 582 113	1.650
32	25	10	185 582 114	1.700
40	32	10	185 582 115	4.530
50	40	10	185 582 116	4.750
63	50	10	185 582 117	5.050

d	D	D1	H	H1	H2	H3	L	L2	L3	M	z	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(inch)
20	79	43	132	111	21	12	158	120	42	M6	130	½
25	100	53	177	148	29	14	192	150	53	M6	160	¾
32	100	60	177	148	29	14	196	150	53	M6	160	1
40	147	74	251	207	44	21	255	205	76	M8	215	1 ¼
50	147	82	251	207	44	21	261	205	76	M8	215	1 ½
63	147	100	251	207	44	21	269	205	76	M8	215	2



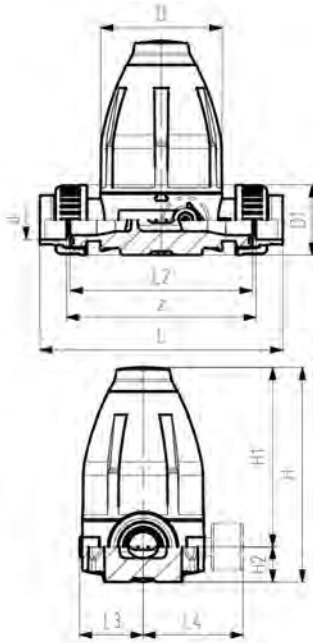
SYGEF Standard
Pressure reducing valve type 582
Unions with butt fusion spigots metric
Without manometer

Model:

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request

Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings FKM Code	Weight (kg)
20	15	10	185 582 512	0.830
25	20	10	185 582 513	1.710
32	25	10	185 582 514	1.760
40	32	10	185 582 515	4.750
50	40	10	185 582 516	4.840
63	50	10	185 582 517	5.140

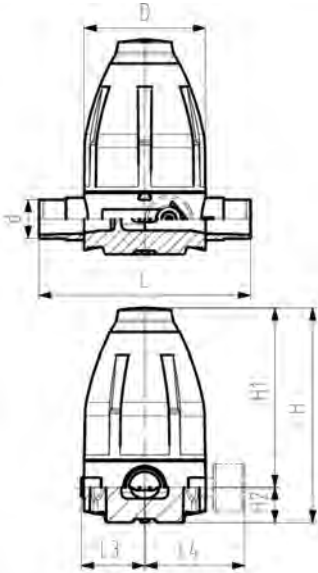
d (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L2 (mm)	L3 (mm)	M	closest inch (inch)
20	79	43	132	111	21	12	226	120	42	M6	½
25	100	53	177	148	29	14	262	150	53	M6	¾
32	100	60	177	148	29	14	268	150	53	M6	1
40	147	74	251	207	44	21	329	205	76	M8	1 ¼
50	147	82	251	207	44	21	335	205	76	M8	1 ½
63	147	100	251	207	44	21	341	205	76	M8	2



SYGEF Standard
Pressure retaining valve type 586
With butt fusion spigots metric
Without manometer

Model:

- Diaphragm PTFE/EPDM
 - Integrated stainless steel mounting inserts
 - 0.5-9.0 bar (7-130 psi)
- 0.3-3.0 bar (4-44 psi) on request
 Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings FKM Code	SP	Weight (kg)
20	15	10	185 586 012	1	0.700
25	20	10	185 586 013	1	1.570
32	25	10	185 586 014	1	1.580
40	32	10	185 586 015	1	4.410
50	40	10	185 586 016	1	4.430
63	50	10	185 586 017	1	4.550

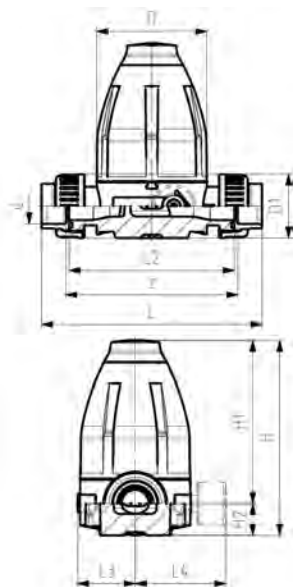
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L3 (mm)	M	closest inch (inch)
20	79	132	111	21	14	150	42	M6	½
25	100	177	148	29	14	190	53	M6	¾
32	100	177	148	29	14	190	53	M6	1
40	147	251	207	44	21	240	76	M8	1 ¼
50	147	251	207	44	21	240	76	M8	1 ½
63	147	251	207	44	21	260	76	M8	2



SYGEF Standard
Pressure retaining valve type 586
Unions with fusion sockets metric
Without manometer

Model:

- Diaphragm PTFE/EPDM
 - Integrated stainless steel mounting inserts
 - 0.5-9.0 bar (7-130 psi)
- 0.3-3.0 bar (4-44 psi) on request
 Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings FKM Code	SP	Weight (kg)
20	15	10	185 586 112	1	0.780
25	20	10	185 586 113	1	1.670
32	25	10	185 586 114	1	1.720
40	32	10	185 586 115	1	4.700
50	40	10	185 586 116	1	4.790
63	50	10	185 586 117	1	5.090

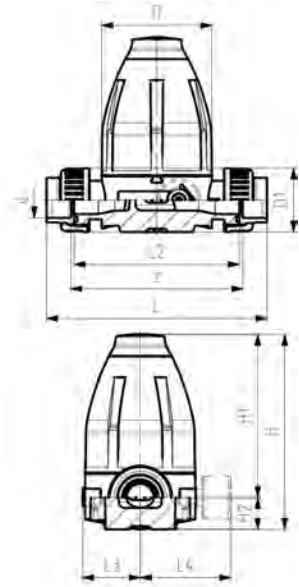
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L2 (mm)	L3 (mm)	M	z (mm)	closest inch (inch)
20	79	132	111	21	12	158	120	42	M6	130	½
25	100	177	148	29	14	192	150	53	M6	160	¾
32	100	177	148	29	14	196	150	53	M6	160	1
40	147	251	207	44	21	255	205	76	M8	215	1 ¼
50	147	251	207	44	21	261	205	76	M8	215	1 ½
63	147	251	207	44	21	269	205	76	M8	215	2



SYGEF Standard
Pressure retaining valve type 586
Unions with butt fusion spigots metric
Without manometer

Model:

- Diaphragm PTFE/EPDM
 - Integrated stainless steel mounting inserts
 - 0.5-9.0 bar (7-130 psi)
- 0.3-3.0 bar (4-44 psi) on request
 Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings FKM Code	SP	Weight (kg)
20	15	10	185 586 512	1	0.820
25	20	10	185 586 513	1	1.710
32	25	10	185 586 514	1	1.760
40	32	10	185 586 515	1	4.740
50	40	10	185 586 516	1	4.830
63	50	10	185 586 517	1	5.130

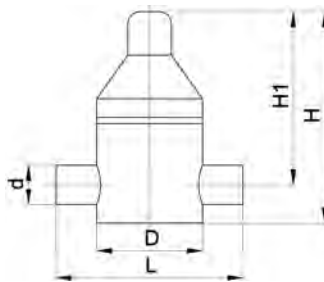
d (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L2 (mm)	L3 (mm)	M	z (mm)	closest inch (inch)
20	79	43	132	111	21	12	226	120	42	M6	130	1/2
25	100	53	177	148	29	14	262	150	53	M6	160	3/4
32	100	60	177	148	29	14	268	150	53	M6	160	1
40	147	74	251	207	44	21	329	205	76	M8	215	1 1/4
50	147	82	251	207	44	21	335	205	76	M8	215	1 1/2
63	147	100	251	207	44	21	341	205	76	M8	215	2



SYGEF Standard
Pressure retaining valve type V86
With fusion spigots IR Plus

Model:

- Material: PVDF



Type	d (mm)	DN (mm)	PTFE Code	SP	Weight (kg)
V86	75	65	199 041 689	1	5.600
V86	75	65	199 041 669	1	5.600

D (mm)	H (mm)	H1 (mm)	L (mm)	closest inch (inch)	Pressure range (bar)	h (mm)	PN
180	275	230	284	2 1/2	0.5 - 5.0	6	6
180	275	230	344	2 1/2	0.5 - 5.0	6	6

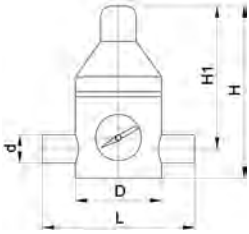


SYGEF Standard
Pressure reducing valve type V82
With fusion spigots IR metric

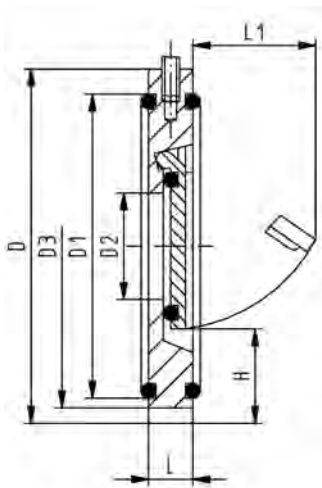
Model:

- Material: PVDF

Type	d (mm)	DN (mm)	PTFE Code	D (mm)	H (mm)	H1 (mm)	L (mm)	closest inch (inch)	Pressure range (bar)	PN
V82	75	65	199 041 649	200	350	250	300	2 ½	0.5 - 5.0	6



Check valves



SYGEF Standard Wafer check valve type 369 Without spring

Model:

- Material: PVDF
- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

Installation instruction:

- Installation between ISO/DIN (all dimensions) and ANSI flange adaptors (all except DN32 and DN125)
- Installation with ANSI flange adaptor: for wafer check valves DN40 to DN80 you have to use ANSI flange adaptors with the next bigger dimension (example DN40 wafer check valve between DN50 ANSI flange adaptor)
- Centering by body diameter (ISO/DIN by D3, ANSI by D)
- Sealing with special flange gasket (except DN32, o-ring)
- A stabilizing zone of at least 5 times nominal diameter (DN) should be provided before and after the wafer check valve (10 times DN is recommended)
- No direct installation on pump flange or following bend allowed
- Wafer check valves without reset spring are not recommended for pulsating flows (production of noise)

Note:

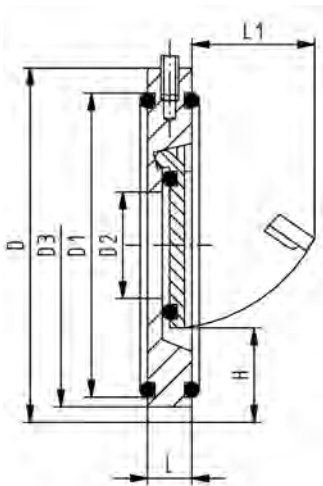
In order to install the wafer check valves properly, Georg Fischer recommends flange adaptors of the next larger diameter of the valve (e.g. wafer check valve d90 with two flange adaptors d110)

d (mm)	DN (mm)	PN (bar)	FKM Code	SP	Weight (kg)
40	32	10	175 369 022	1	0.133
50	40	10	175 369 023	1	0.184
63	50	10	175 369 024	1	0.272
75	65	10	175 369 025	1	0.410
90	80	10	175 369 026	1	0.508
110	100	10	175 369 027	1	0.722
140	125	10	175 369 029	1	0.991
160	150	6	175 369 030	1	1.418
225	200	6	175 369 031	1	2.710
280	250	6	175 369 032	1	4.520
315	300	6	175 369 033	1	6.900

d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	L (mm)	L1 (mm)	Opening pressure vertical (mbar)	Opening pres- sure horizontal (mbar)	Tightness from water column (m)
40	85	59	18	85	25	15	22	10	1	2
50	105	74	22	95	27	16	27	10	1	2
63	124	90	32	109	29	18	40	10	1	2
75	137	110	40	129	31	20	55	10	1	2
90	175	125	54	144	32	20	67	10	1	2
110	175	150	70	164	31	23	67	10	1	2
140	195	178	92	195	35	23	94	10	1	2
160	222	192	105	220	41	26	100	10	1	2
225	279	256	154	275	38	35	152	18	1	2
280	340	306	192	330	41	40	180	18	1	2
315	410	342	227	380	41	45	215	18	1	2

d (mm)	closest inch (inch)
40	1 ¼
50	1 ½
63	2
75	2 ½
90	3

table continued on the next page



d (mm)	closest inch (inch)
110	4
140	5
160	6
225	8
280	10
315	12



**SYGEF Standard
Wafer check valve type 369
With Hastelloy C spring**

Model:

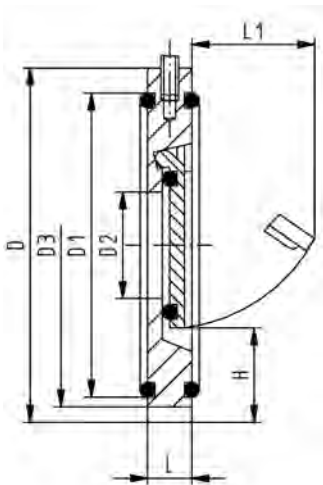
- Material: PVDF
- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

Installation instruction:

- Installation between ISO/DIN (all dimensions) and ANSI flange adaptors (all except DN32 and DN125)
- Installation with ANSI flange adaptor: for wafer check valves DN40 to DN80 you have to use ANSI flange adaptors with the next bigger dimension (example DN40 wafer check valve between DN50 ANSI flange adaptor)
- Centering by body diameter (ISO/DIN by D3, ANSI by D)
- Sealing with special flange gasket (except DN32, o-ring)
- A stabilizing zone of at least 5 times nominal diameter (DN) should be provided before and after the wafer check valve (10 times DN is recommended)
- No direct installation on pump flange or following bend allowed

Note:

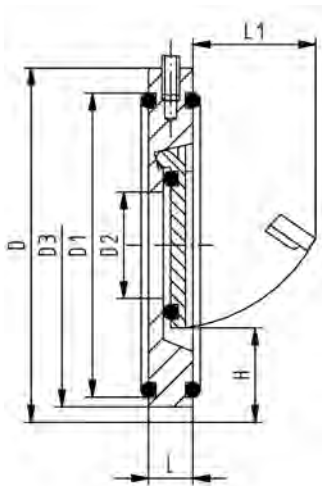
In order to install the wafer check valves properly, Georg Fischer recommends flange adaptors of the next larger diameter of the valve (e.g. wafer check valve d90 with two flange adaptors d110)



d (mm)	DN (mm)	PN (bar)	FKM Code	SP	Weight (kg)
40	32	10	175 369 102	1	0.170
50	40	10	175 369 103	1	0.210
63	50	10	175 369 104	1	0.330
75	65	10	175 369 105	1	0.420
90	80	10	175 369 106	1	0.510
110	100	10	175 369 107	1	0.710
140	125	10	175 369 109	1	0.970
160	150	6	175 369 110	1	1.420
225	200	6	175 369 111	1	2.710
280	250	6	175 369 112	1	4.520
315	300	6	175 369 113	1	6.900

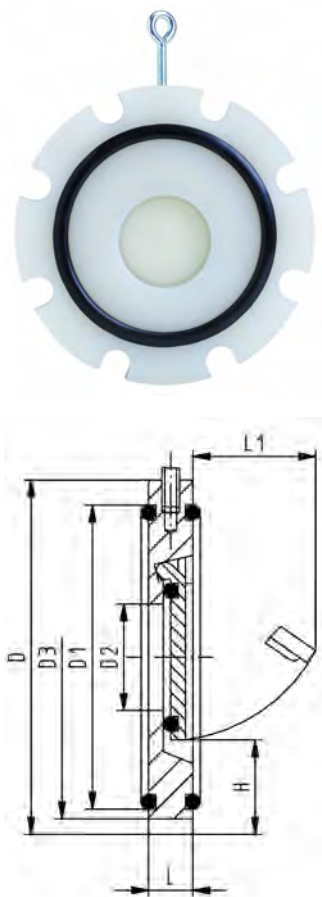
d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	L (mm)	L1 (mm)	Opening pressure vertical (mbar)	Opening pres- sure horizontal (mbar)	Tightness from water column (m)
40	85	59	18	85	25	15	22	30	20	2
50	105	74	22	95	27	16	27	30	20	2
63	124	90	32	109	29	18	40	30	20	2
75	137	110	40	129	31	20	55	30	20	2
90	175	125	54	144	32	20	67	30	20	2

table continued on the next page



d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	L (mm)	L1 (mm)	Opening pressure vertical (mbar)	Opening pressure horizontal (mbar)	Tightness from water column (m)
110	175	150	70	164	31	23	67	30	20	2
140	195	178	92	195	35	23	94	30	20	2
160	222	192	105	220	41	26	100	30	20	2
225	279	256	154	275	38	35	152	38	20	2
280	340	306	192	330	41	40	180	38	20	2
315	410	342	227	380	41	45	215	38	20	2

d (mm)	closest inch (inch)
40	1 ¼
50	1 ½
63	2
75	2 ½
90	3
110	4
140	5
160	6
225	8
280	10
315	12



SYGEF Standard
Wafer check valve type 369
With V4A spring (stainless steel 316)

Model:

- Material: PVDF
- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

Installation instruction:

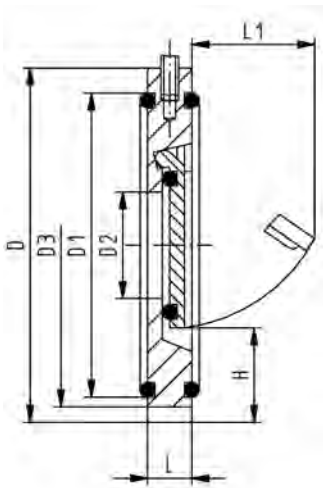
- Installation between ISO/DIN (all dimensions) and ANSI flange adaptors (all except DN32 and DN125)
- Installation with ANSI flange adaptor: for wafer check valves DN40 to DN80 you have to use ANSI flange adaptors with the next bigger dimension (example DN40 wafer check valve between DN50 ANSI flange adaptor)
- Centering by body diameter (ISO/DIN by D3, ANSI by D)
- Sealing with special flange gasket (except DN32, o-ring)
- A stabilizing zone of at least 5 times nominal diameter (DN) should be provided before and after the wafer check valve (10 times DN is recommended)
- No direct installation on pump flange or following bend allowed

Note:

In order to install the wafer check valves properly, Georg Fischer recommends flange adaptors of the next larger diameter of the valve (e.g. wafer check valve d90 with two flange adaptors d110)

d (mm)	DN (mm)	PN (bar)	FKM Code	SP	Weight (kg)
40	32	10	175 369 062	1	0.170
50	40	10	175 369 063	1	0.210
63	50	10	175 369 064	1	0.274
75	65	10	175 369 065	1	0.410
90	80	10	175 369 066	1	0.508
110	100	10	175 369 067	1	0.724
140	125	10	175 369 069	1	0.993
160	150	6	175 369 070	1	1.422
225	200	6	175 369 071	1	2.708
280	250	6	175 369 072	1	4.423
315	300	6	175 369 073	1	6.900

table continued on the next page



d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	L (mm)	L1 (mm)	Opening pressure vertical (mbar)	Opening pressure horizontal (mbar)	Tightness from water column (m)
40	85	59	18	85	25	15	22	30	20	2
50	105	74	22	95	27	16	27	30	20	2
63	124	90	32	109	29	18	40	30	20	2
75	137	110	40	129	31	20	55	30	20	2
90	175	125	54	144	32	20	67	30	20	2
110	175	150	70	164	31	23	67	30	20	2
140	195	178	92	195	35	23	94	30	20	2
160	222	192	105	220	41	26	100	30	20	2
225	279	256	154	275	38	35	152	38	20	2
280	340	306	192	330	41	40	180	38	20	2
315	410	342	227	380	41	45	215	38	20	2

d (mm)	closest inch (inch)
40	1 ¼
50	1 ½
63	2
75	2 ½
90	3
110	4
140	5
160	6
225	8
280	10
315	12

Cone check valves

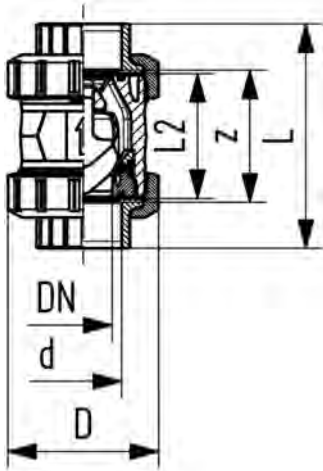


**SYGEF Standard
Check valve type 562
With fusion sockets metric**

Model:

- Material: PVDF
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	10	16	190	175 562 011	0.160	50	93	56	67	3/8
20	15	16	180	175 562 012	0.160	50	95	56	66	1/2
25	20	16	380	175 562 013	0.340	58	109	65	77	3/4
32	25	16	460	175 562 014	0.360	68	119	71	83	1
40	32	16	850	175 562 015	0.670	84	135	85	99	1 1/4
50	40	16	1080	175 562 016	0.990	97	147	89	105	1 1/2
63	50	16	1670	175 562 017	1.770	124	168	101	117	2
75	65	16	2950	175 562 018	3.630	166	235	136	167	2 1/2
90	80	16	3600	175 562 019	5.800	200	255	141	180	3
110	100	16	4150	175 562 020	9.450	238	305	164	215	4

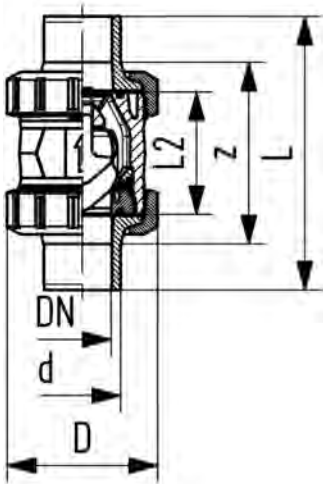


SYGEF Standard
Check valve type 562
 With socket fusion spigots metric

Model:

- Material: PVDF
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	closest inch (inch)
16	10	16	190	175 562 051	0.160	50	110	56	3/8
20	15	16	180	175 562 052	0.170	50	120	56	1/2
25	20	16	380	175 562 053	0.370	58	139	65	3/4
32	25	16	460	175 562 054	0.400	68	150	71	1
40	32	16	850	175 562 055	0.670	84	170	85	1 1/4
50	40	16	1080	175 562 056	1.030	97	190	89	1 1/2
63	50	16	1670	175 562 057	1.830	124	220	101	2

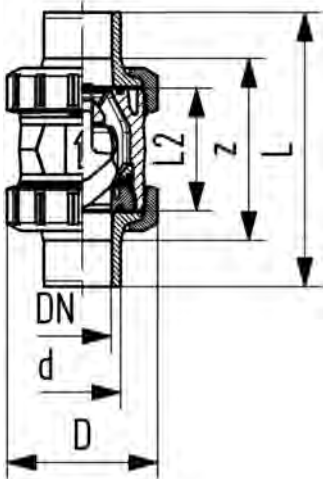


SYGEF Standard
Check valve type 562
 With butt fusion spigots IR-Plus metric

Model:

- Material: PVDF
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
20	15	16	180	175 562 092	0.160	50	130	56	1.9	3/8
25	20	16	380	175 562 093	0.350	58	143	65	1.9	3/4
32	25	16	460	175 562 094	0.380	68	150	71	2.4	1
40	32	16	850	175 562 095	0.660	84	171	85	2.4	1 1/4
50	40	16	1080	175 562 096	1.000	97	191	89	3.0	1 1/2
63	50	16	1670	175 562 097	1.790	124	220	101	3.0	2
75	65	16	2950	175 562 098	3.680	166	270	136	3.6	2 1/2
90	80	16	3600	175 562 099	5.760	200	265	141	4.3	3
110	100	16	4150	175 562 100	9.270	238	305	164	5.3	4

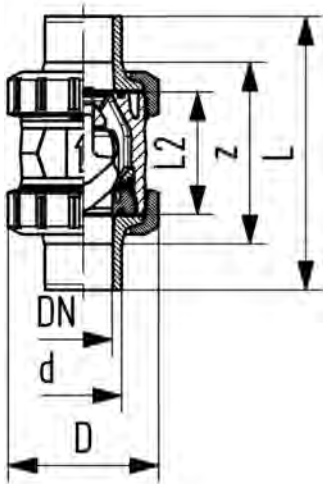


SYGEF Standard
Check valve type 561
 With butt fusion spigots IR-Plus metric

Model:

- Material: PVDF
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



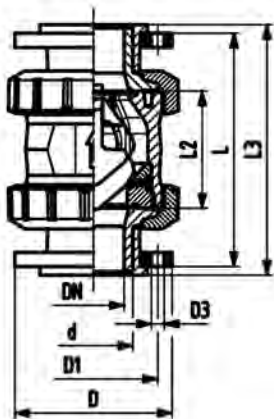
d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
20	15	16	180	175 561 092	0.160	50	130	56	1.9	½
25	20	16	380	175 561 093	0.350	58	143	65	1.9	¾
32	25	16	460	175 561 094	0.380	68	150	71	2.4	1
40	32	16	850	175 561 095	0.660	84	171	85	2.4	1 ¼
50	40	16	1080	175 561 096	1.000	97	191	89	3.0	1 ½
63	50	16	1670	175 561 097	1.790	124	220	101	3.0	2
75	65	16	2950	175 561 098	3.680	166	270	136	3.6	2 ½
90	80	16	3600	175 561 099	5.760	200	265	141	4.3	3
110	100	16	4150	175 561 100	9.270	238	305	164	5.3	4



SYGEF Standard
Check valve type 561
 With backing flanges PP-st metric

Model:

- Material: PVDF
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP Weight (kg)
75	65	16	2950	175 561 288	1 9.230
90	80	16	3600	175 561 289	1 13.430
110	100	16	4150	175 561 290	1 18.200

d (mm)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	closest inch (inch)
75	166	145	18	149	85	280	270	136	290	70	64	206	M8	2 ½
90	200	160	18	161	105	296	270	141	310	70	64	206	M8	3
110	238	180	18	178	123	336	320	164	350	120	64	206	M12	4

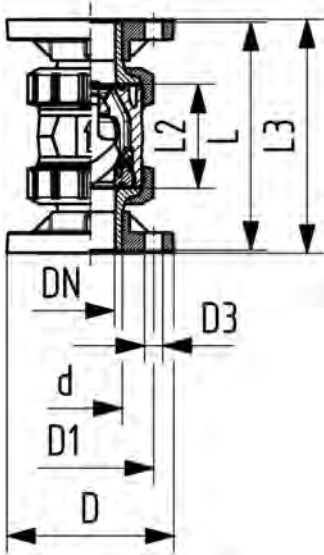


SYGEF Standard
Check valve type 561
With fixed flanges metric

Model:

- Material: PVDF
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Installation length according to EN 558-1
- Z-length, end connectors and union nuts **not** compatible with type 360
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	16	180	175 561 192	1	0.420
25	20	16	380	175 561 193	1	0.700
32	25	16	460	175 561 194	1	0.860
40	32	16	850	175 561 195	1	1.430
50	40	16	1080	175 561 196	1	1.940
63	50	16	1670	175 561 197	1	3.160

d (mm)	D (mm)	D1 (mm)	D3 (mm)	L (mm)	L2 (mm)	L3 (mm)	closest inch (inch)
20	93	65	14	120	56	130	½
25	103	75	14	140	65	150	¾
32	115	85	14	150	71	160	1
40	137	100	18	170	85	180	1 ¼
50	147	110	18	190	89	200	1 ½
63	162	125	18	220	101	230	2

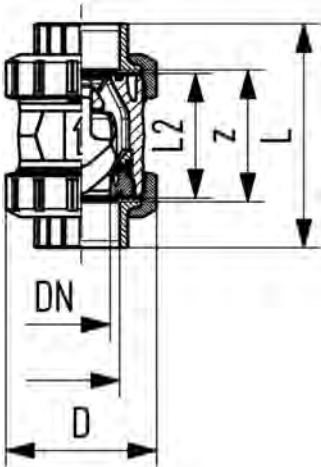


SYGEF Standard
Check valve type 561
With threaded sockets NPT

Model:

- Material: PVDF
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



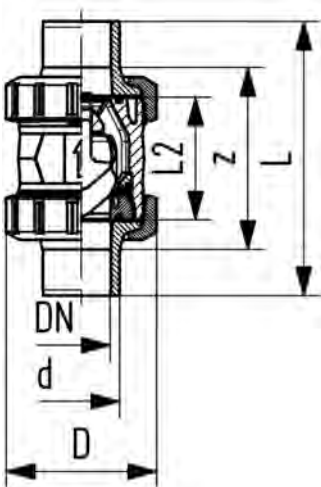
NPT (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)	D (mm)	L (mm)	L2 (mm)	z (mm)
3/8	10	10	190	175 561 111	1	0.150	50	96	56	69
1/2	15	10	180	175 561 112	1	0.160	50	99	56	64
3/4	20	10	380	175 561 113	1	0.350	58	111	65	76
1	25	10	460	175 561 114	1	0.390	68	127	71	83
1 1/4	32	10	850	175 561 115	1	0.680	84	146	85	101
1 1/2	40	10	1080	175 561 116	1	1.000	97	157	89	111
2	50	10	1670	175 561 117	1	1.770	124	183	101	135

SYGEF Standard
Check valve type 561
With socket fusion spigots metric

Model:

- Material: PVDF
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)	D (mm)	L (mm)	L2 (mm)	closest inch (inch)
16	10	16	190	175 561 051	1	0.160	50	110	56	3/8
20	15	16	180	175 561 052	1	0.170	50	120	56	1/2
25	20	16	380	175 561 053	1	0.370	58	139	65	3/4
32	25	16	460	175 561 054	1	0.400	68	150	71	1
40	32	16	850	175 561 055	1	0.670	84	170	85	1 1/4
50	40	16	1080	175 561 056	1	1.030	97	190	89	1 1/2
63	50	16	1670	175 561 057	1	1.830	124	220	101	2

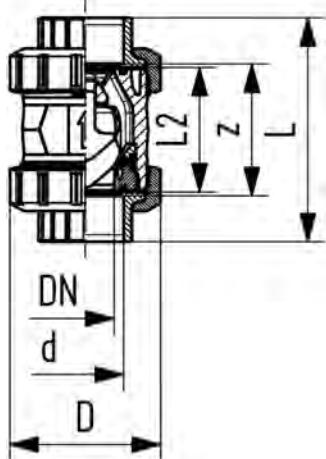


SYGEF Standard
Check valve type 561
 With fusion sockets metric

Model:

- Material: PVDF
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	10	16	190	175 561 011	0.160	50	93	56	67	3/8
20	15	16	180	175 561 012	0.160	50	95	56	66	1/2
25	20	16	380	175 561 013	0.340	58	109	65	77	3/4
32	25	16	460	175 561 014	0.360	68	119	71	83	1
40	32	16	850	175 561 015	0.670	84	135	85	99	1 1/4
50	40	16	1080	175 561 016	0.990	97	147	89	105	1 1/2
63	50	16	1670	175 561 017	1.770	124	168	101	117	2

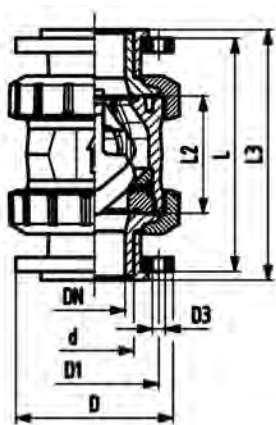


SYGEF Standard
Check valve type 562
 With backing flanges PP-st metric

Model:

- Material: PVDF
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP Weight (kg)
75	65	16	2950	175 562 288	1 9.230
90	80	16	3600	175 562 289	1 13.430
110	100	16	4150	175 562 290	1 18.200

d (mm)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	closest inch (inch)
75	166	145	18	149	85	280	270	136	290	70	64	206	M8	1 1/4
90	200	160	18	161	105	296	270	141	310	70	64	206	M8	1 1/2
110	238	180	18	178	123	336	320	164	350	120	64	206	M12	2

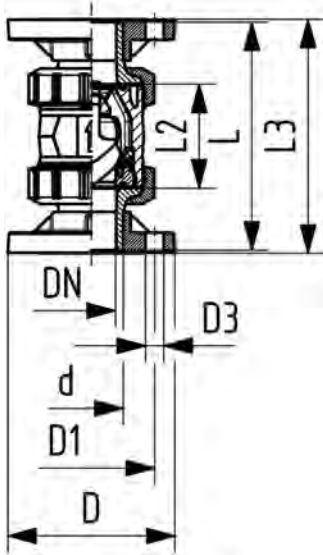


SYGEF Standard
Check valve type 562
With fixed flanges metric

Model:

- Material: PVDF
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Installation length according to EN 558-1
- Z-length, end connectors and union nuts **not** compatible with type 360
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	16	180	175 562 192	1	0.420
25	20	16	380	175 562 193	1	0.700
32	25	16	460	175 562 194	1	0.860
40	32	16	850	175 562 195	1	1.430
50	40	16	1080	175 562 196	1	1.940
63	50	16	1670	175 562 197	1	3.160

d (mm)	D (mm)	D1 (mm)	D3 (mm)	L (mm)	L2 (mm)	L3 (mm)	closest inch (inch)
20	93	65	14	120	56	130	½
25	103	75	14	140	65	150	¾
32	115	85	14	150	71	160	1
40	137	100	18	170	85	180	1 ¼
50	147	110	18	190	89	200	1 ½
63	162	125	18	220	101	230	2

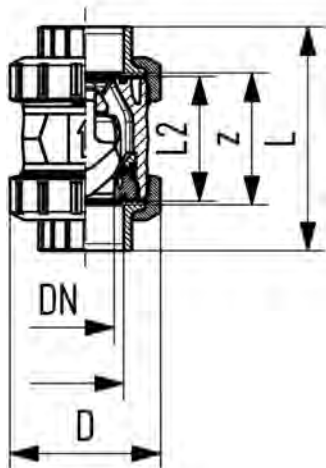


SYGEF Standard
Check valve type 562
With threaded sockets NPT

Model:

- Material: PVDF
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



NPT (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)	D (mm)	L (mm)	L2 (mm)	z (mm)
3/8	10	10	190	175 562 111	1	0.150	50	96	56	69
1/2	15	10	180	175 562 112	1	0.160	50	99	56	64
3/4	20	10	380	175 562 113	1	0.350	58	111	65	76
1	25	10	460	175 562 114	1	0.390	68	127	71	83
1 1/4	32	10	850	175 562 115	1	0.680	84	146	85	101
1 1/2	40	10	1080	175 562 116	1	1.000	97	157	89	111
2	50	10	1670	175 562 117	1	1.770	124	183	101	135

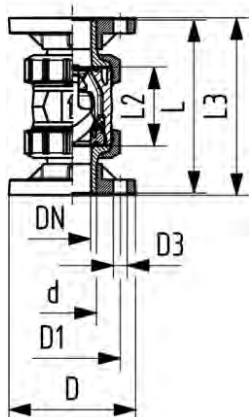


SYGEF Standard
Check valve type 562
With fixed flanges ANSI

Model:

- Material: PVDF
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Installation length according to EN 558-1
- Z-length, end connectors and union nuts **not** compatible with type 360
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	D (mm)	D1 (mm)	D3 (mm)	L (mm)	L2 (mm)	L3 (mm)	closest inch (inch)
20	15	16	180		93	65	14	120	56	130	1/2
25	20	16	380		103	75	14	140	65	150	3/4
32	25	16	460	800 052 131	115	85	14	150	71	160	1
40	32	16	850		137	100	18	170	85	180	1 1/4
50	40	16	1080	800 052 132	147	110	18	190	89	200	1 1/2
63	50	16	1670		162	125	18	220	101	230	2

Process control valves

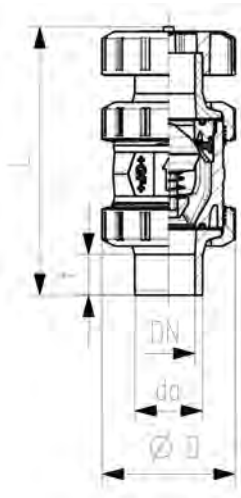


SYGEF Standard Ventilating valve type 595 With socket fusion spigots metric

Model:

- Material: PVDF
- With protection cap up to DN50 made of PP-GF, DN65-100 made of POM
- Spring HALAR coated
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Compact installation length

d (mm)	DN (mm)	PN (bar)	FKM Code	D (mm)	L (mm)	t (mm)	closest inch (inch)
16	10	16	175 595 031	50	135	13	3/8
20	15	16	175 595 032	50	140	14	1/2
25	20	16	175 595 033	58	157	16	3/4
32	25	16	175 595 034	68	168	18	1
40	32	16	175 595 035	84	189	20	1 1/4
50	40	16	175 595 036	97	211	23	1 1/2
63	50	16	175 595 037	124	245	27	2

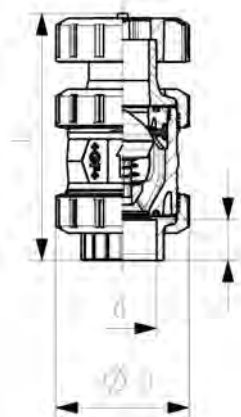


SYGEF Standard Ventilating valve type 595 With fusion sockets metric

Model:

- Material: PVDF
- With protection cap up to DN50 made of PP-GF, DN65-100 made of POM
- Spring HALAR coated
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Compact installation length

d (mm)	DN (mm)	PN (bar)	FKM Code	D (mm)	L (mm)	t (mm)	closest inch (inch)
16	10	16	175 595 011	50	126	14	3/8
20	15	16	175 595 012	50	127	15	1/2
25	20	16	175 595 013	58	142	16	3/4
32	25	16	175 595 014	68	153	18	1
40	32	16	175 595 015	84	171	19	1 1/4
50	40	16	175 595 016	97	190	21	1 1/2
63	50	16	175 595 017	124	219	26	2
75	65	16	175 595 018	166	256	33	2 1/2
90	80	16	175 595 019	200	275	37	3
110	100	16	175 595 020	238	318	43	4



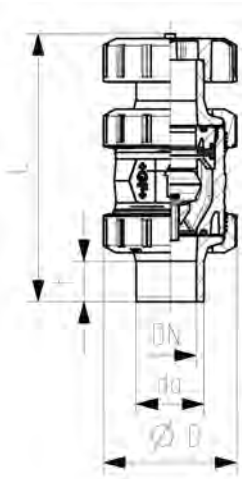


SYGEF Standard
Ventilating and bleed valve type 591
With socket fusion spigots metric

Model:

- Material: PVDF
- With protection cap up to DN50 made of PP-GF, DN65-100 made of POM
- Special floater made of PVDF
- Designed for easy installation and removal
- Compact installation length

d (mm)	DN (mm)	PN (bar)	FKM Code	D (mm)	L (mm)	t (mm)	closest inch (inch)
16	10	16	175 591 031	50	135	13	3/8
20	15	16	175 591 032	50	140	14	1/2
25	20	16	175 591 033	58	157	16	3/4
32	25	16	175 591 034	68	168	18	1
40	32	16	175 591 035	84	189	20	1 1/4
50	40	16	175 591 036	97	211	23	1 1/2
63	50	16	175 591 037	124	245	27	2

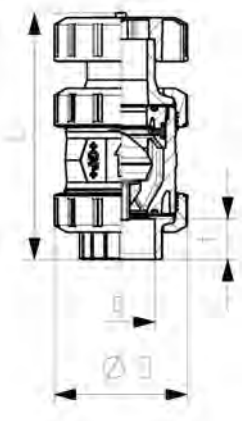


SYGEF Standard
Ventilating and bleed valve type 591
With fusion sockets metric

Model:

- Material: PVDF
- With protection cap up to DN50 made of PP-GF, DN65-100 made of POM
- Special floater made of PVDF
- Designed for easy installation and removal
- Compact installation length

d (mm)	DN (mm)	PN (bar)	FKM Code	D (mm)	L (mm)	t (mm)	closest inch (inch)
16	10	16	175 591 011	50	126	14	3/8
20	15	16	175 591 012	50	127	15	1/2
25	20	16	175 591 013	58	142	16	3/4
32	25	16	175 591 014	68	153	18	1
40	32	16	175 591 015	84	171	19	1 1/4
50	40	16	175 591 016	97	190	21	1 1/2
63	50	16	175 591 017	124	219	26	2
75	65	16	175 591 018	166	256	33	2 1/2
90	80	16	175 591 019	200	275	37	3
110	100	16	175 591 020	238	318	43	4





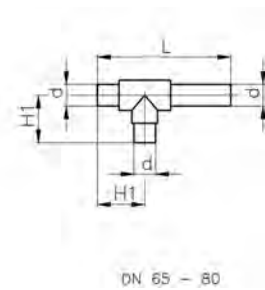
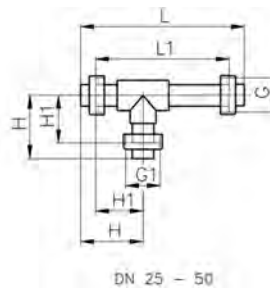
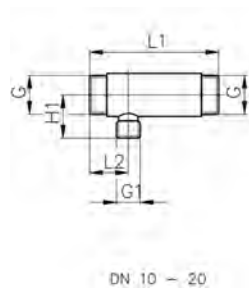
SYGEF Standard
Water jet suction pump type P20

Model:

- Material: PVDF
- DN 10-20: BSP parallel female thread and solvent cement socked metric included
- DN 25-50: Fusion socket metric
- DN 65-80: Fusion spigot metric

d (mm)	DN (mm)	PN (bar)	FKM Code	SP	Weight (kg)
16	10	10	199 041 138	0	0.184
20	15	10	199 041 139	0	0.278
25	20	10	199 041 140	0	0.476
32	25	10	199 041 141	0	0.690
40	32	10	199 041 142	0	1.100
50	40	10	199 041 143	0	1.649
63	50	10	199 041 144	0	3.340
75	65	10	199 041 145	0	3.340
90	80	10	199 041 146	0	5.500

d (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	G (inch)	G1 (inch)	closest inch (inch)
16		35		110	40	R ¾	R ¾	¾
20		35		110	40	R 1	R ¾	½
25		45		145	45	R 1¼	R ¾	¾
32	96	71	245	195		R 1½	R 1½	1
40	116	87	297	239		R 2	R 2	1 ¼
50	139	105	369	301		R 2¼	R 2¼	1 ½
63	169	128	433	351		R 2¾	R 2¾	2
75		115	388					2 ½
90		149	465					3

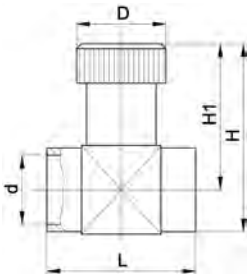




SYGEF Standard
Throttle valve type V251
With fusion sockets metric

Model:

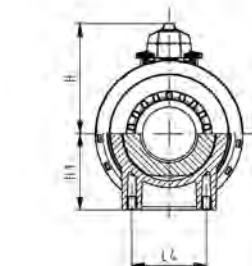
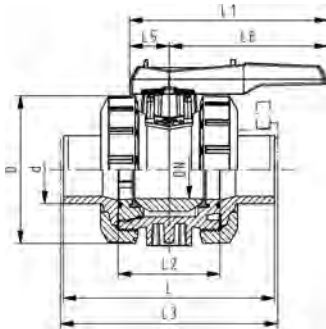
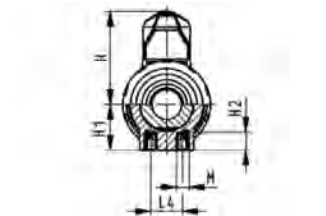
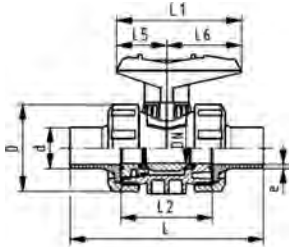
- Material: PVDF



d	DN	PN	FKM	SP	Weight	D	H	H1	L	closest
(mm)	(mm)	(bar)	Code		(kg)	(mm)	(mm)	(mm)	(mm)	inch
										(inch)
16	10	10	199 041 231	1	0.100	29	57	45	47	$\frac{3}{8}$
20	15	10	199 041 232	0	0.106	35	66	51	55	$\frac{1}{2}$
25	20	10	199 041 233	0	0.143	40	80	63	66	$\frac{3}{4}$
32	25	10	199 041 234	0	0.273	47	96	75	80	1
40	32	10	199 041 235	0	0.400	56	111	86	100	1 $\frac{1}{4}$
50	40	10	199 041 236	0	0.923	70	133	101	120	1 $\frac{1}{2}$
63	50	10	199 041 237	0	1.300	88	158	118	146	2

Hand-operated valves cleaned

Ball valves silicone free / paint compatible



SYGEF Standard oil free Ball valve type 546 Pro With butt fusion spigots IR-Plus metric

Model:

- Material: PVDF/oil free cleaned
- Lockable lever as standard (DN10-DN50)
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Z-dimension, valve end and union nut **are compatible** with type 546 (1st Generation)
- Union ends for easy installation and removal

Option:

- Interface-module with position feedback sensor, incl. LED feedback (DN10-50)
- Manual spring return lever ("Dead man") (DN10-25)
- Individual configuration of the valve
- Pneumatic or electric actuators from GF

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	16	185	175 546 492	1	0.202
25	20	16	350	175 546 493	1	0.301
32	25	16	700	175 546 494	1	0.438
40	32	16	1000	175 546 495	1	0.780
50	40	16	1600	175 546 496	1	1.057
63	50	16	3100	175 546 497	1	2.150
75	65	16	5000	175 546 498	1	6.600
90	80	16	7000	175 546 499	1	9.700
110	100	16	11000	175 546 500	1	15.300

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)
20	50	61	27	12	130	82	56	25	35	47	M6	126
25	58	74	30	12	143	105	65	25	44	62	M6	139
32	68	80	36	15	150	105	71	45	44	62	M8	146
40	84	95	44	15	171	131	85	45	57	74	M8	167
50	97	102	51	15	191	131	89	45	57	74	M8	187
63	124	117	64	15	219	152	101	70	66	86	M8	215
75	166	150	85	15	266	269	136	70	64	206	M8	262
90	200	161	105	15	264	269	141	70	64	206	M8	260
110	238	178	123	22	301	319	164	120	64	256	M12	297



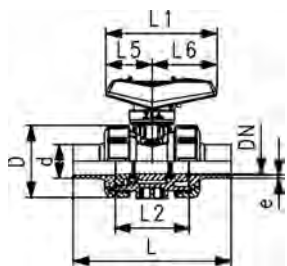
**SYGEF Standard silicone free
Ball valve type 546 Pro
With butt fusion spigots IR-Plus metric**

Model:

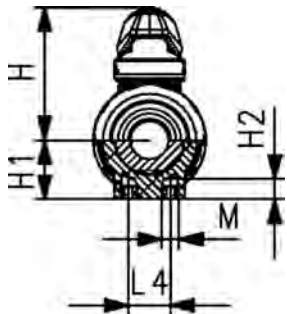
- Material: PVDF / silicone free cleaned
- Lockable lever as standard (DN10-DN50)
- For easy installation and removal
- Ball seals PVDF
- Integrated stainless steel mounting inserts
- Z-dimension, valve end and union nut **are compatible** with type 546 (1st Generation)

Option:

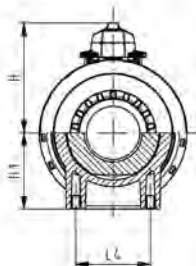
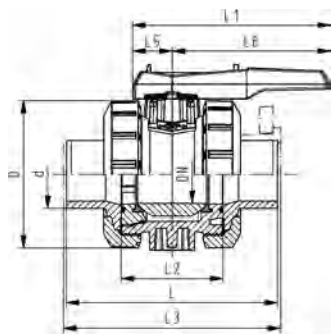
- Interface-module with position feedback sensor, incl. LED feedback (DN10-50)
- Manual spring return lever ("Dead man") (DN10-25)
- Pneumatic or electric actuators from GF
- Individual configuration of the valve



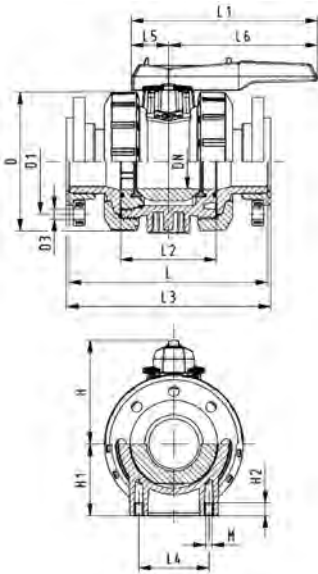
d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	16	185	175 546 752	1	0.201
25	20	16	350	175 546 753	1	0.310
32	25	16	700	175 546 754	1	0.460
40	32	16	1000	175 546 755	1	0.780
50	40	16	1600	175 546 756	1	1.110
63	50	16	3100	175 546 757	1	2.150
75	65	16	5000	175 546 758	1	6.600
90	80	16	7000	175 546 759	1	9.700
110	100	16	11000	175 546 760	1	15.300



d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	e (mm)
20	50	61	27	12	130	82	56	25	35	47	M6	1.9
25	58	74	30	12	143	105	65	25	44	62	M6	1.9
32	68	80	36	15	150	105	71	45	44	62	M8	2.4
40	84	95	44	15	171	131	85	45	57	74	M8	2.4
50	97	102	51	15	191	131	89	45	57	74	M8	3.0
63	124	117	64	15	219	152	101	70	66	86	M8	3.0
75	166	150	85	15	266	269	136	70	64	206	M8	3.6
90	200	161	105	15	264	269	141	70	64	206	M8	4.3
110	238	178	123	22	301	319	164	120	64	256	M12	5.3



**SYGEF Standard silicone free
Ball valve type 546 Pro
With backing flanges PP-st metric**



Model:

- Material: PVDF / silicone free cleaned
- Lockable lever as standard (DN10-DN50)
- For easy installation and removal
- Ball seals PVDF
- Integrated stainless steel mounting inserts
- Z-dimension, valve end and union nut **are compatible** with type 546 (1st Generation)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- Hole circle PN10

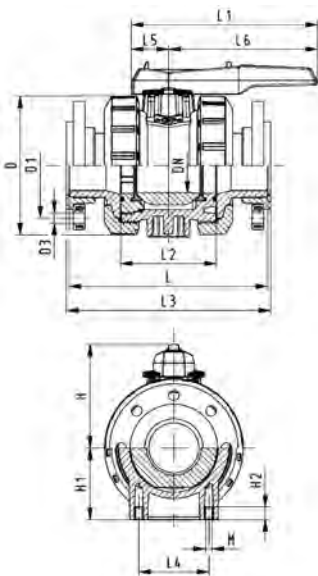
Option:

- Pneumatic or electric actuators from GF
- Individual configuration of the valve
- Multifunctional module with integrated limit switches (DN65-100)

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
75	65	16	5000	175 546 828	1	11.700
90	80	16	7000	175 546 829	1	16.000
110	100	16	11000	175 546 830	1	23.900

d (mm)	DN (mm)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M
75	65	185	145	18	235	85	15	269	136	213	70	64	206	M8
90	80	200	160	18	266	105	15	269	141	226	70	64	206	M8
110	100	220	180	18	301	123	22	319	164	257	120	64	256	M12

**SYGEF Standard silicone free
Ball valve type 546 Pro
With backing flanges PP-st Inch ANSI**



Model:

- Material: PVDF / silicone free cleaned
- For easy installation and removal
- Lockable lever as standard (DN10-DN50)
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Z-dimension, valve end and union nut **are compatible** with type 546 (1st Generation)
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

Option:

- Interface-module with position feedback sensor, incl. LED feedback (DN10-50)
- Manual spring return lever ("Dead man") (DN10-25)
- Pneumatic or electric actuators from GF
- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
75	65	16	5000	175 546 838	1	11.700
90	80	16	7000	175 546 839	1	16.000
110	100	16	11000	175 546 840	1	23.900

d (mm)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M
75	185	140	19	235	85	15	269	136	213	70	64	206	M8
90	200	152	19	266	105	15	269	141	226	70	64	206	M8
110	229	190	19	301	123	22	319	164	257	120	64	256	M12



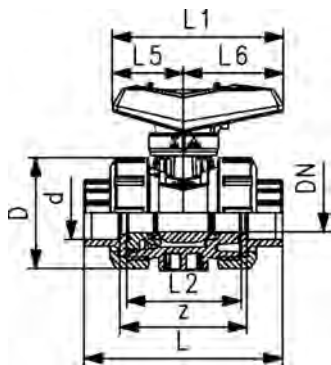
**SYGEF Standard silicone free
Ball valve type 546 Pro
With fusion sockets metric**

Model:

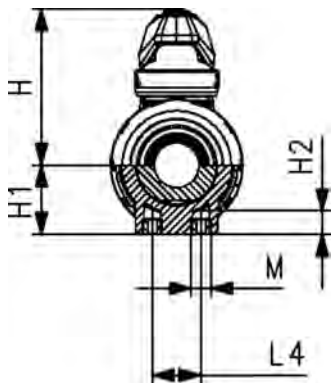
- Material: PVDF / silicone free cleaned
- Lockable lever as standard (DN10-DN50)
- For easy installation and removal
- Ball seal: PVDF
- Integrated stainless steel mounting inserts
- Z-dimension, valve end and union nut **are compatible** with type 546 (1st Generation)
- Ball seals PVDF
- Valve end and union nut are **not compatible** with type 346 (DN10/15-50) and type 370 (DN65-100)

Option:

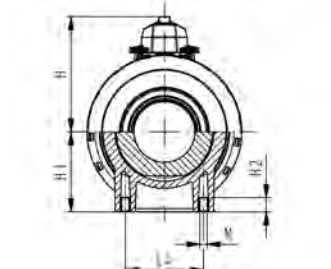
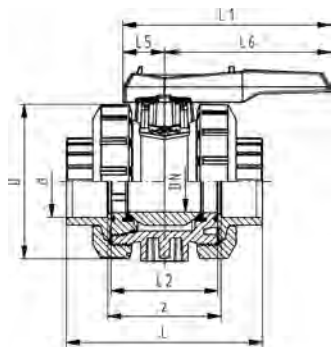
- Interface-module with position feedback sensor, incl. LED feedback (DN10-50)
- Manual spring return lever ("Dead man") (DN10-25)
- Multifunctional module with integrated limit switches (DN65-100)
- Individual configuration of the valve possible
- Pneumatic or electric actuators from GF
- Individual configuration of the valve



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
16	10	16	71	175 546 691	1	0.195
20	15	16	185	175 546 692	1	0.200
25	20	16	350	175 546 693	1	0.300
32	25	16	700	175 546 694	1	0.440
40	32	16	1000	175 546 695	1	0.760
50	40	16	1600	175 546 696	1	1.060
63	50	16	3100	175 546 697	1	2.055
75	65	16	5000	175 546 698	1	6.300
90	80	16	7000	175 546 699	1	9.500
110	100	16	11000	175 546 700	1	15.000



d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)	closest inch (inch)
16	50	61	27	12	93	82	56	25	35	47	M6	67	3/8
20	50	61	27	12	95	82	56	25	35	47	M6	67	1/2
25	58	74	30	12	108	106	65	25	44	62	M6	76	3/4
32	68	80	36	12	118	106	71	25	44	62	M6	82	1
40	84	95	44	15	136	131	85	45	57	74	M8	96	1 1/4
50	97	102	51	15	147	131	89	45	57	74	M8	101	1 1/2
63	124	117	64	15	168	152	101	45	66	86	M8	114	2
75	166	150	85	15	233	270	136	70	64	206	M8	171	2 1/2
90	200	161	105	15	254	270	141	70	64	206	M8	184	3
110	238	178	123	22	299	320	164	120	64	256	M12	217	4





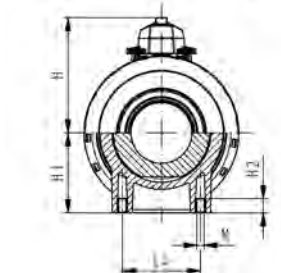
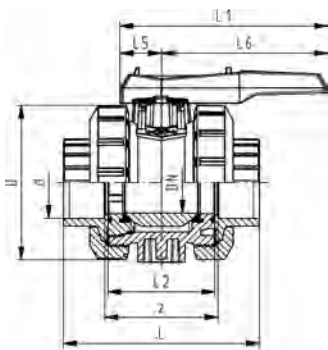
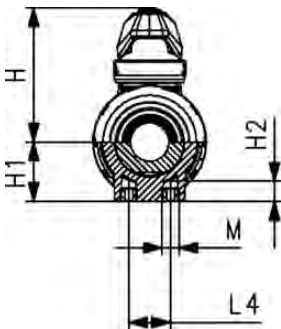
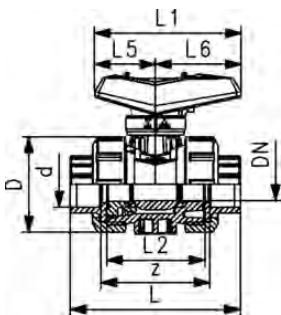
**SYGEF Standard oil free
Ball valve type 546 Pro
With fusion sockets metric**

Model:

- Material: PVDF/oil free cleaned
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

Option:

- Individual configuration of the valve
- Multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
16	10	16	71	175 546 471	1	0.195
20	15	16	185	175 546 472	1	0.200
25	20	16	350	175 546 473	1	0.298
32	25	16	700	175 546 474	1	0.429
40	32	16	1000	175 546 475	1	0.754
50	40	16	1600	175 546 476	1	1.009
63	50	16	3100	175 546 477	1	2.055
75	65	16	5000	175 546 478	1	6.300
90	80	16	7000	175 546 479	1	9.500
110	100	16	11000	175 546 480	1	15.000

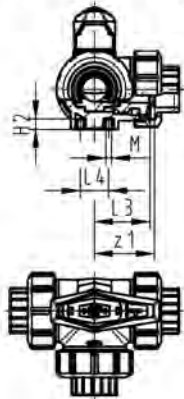
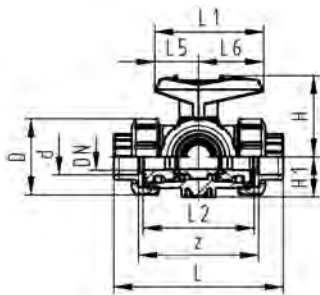
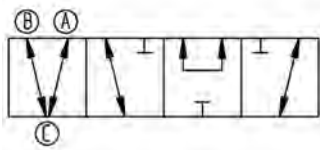
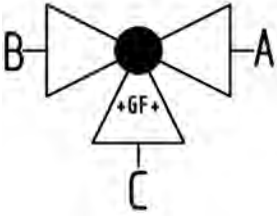
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)	closest inch (inch)
16	50	61	27	12	93	82	56	25	35	47	M6	67	3/8
20	50	61	27	12	95	82	56	25	35	47	M6	67	1/2
25	58	74	30	12	108	106	65	25	44	62	M6	76	3/4
32	68	80	36	12	118	106	71	25	44	62	M6	82	1
40	84	95	44	15	136	131	85	45	57	74	M8	96	1 1/4
50	97	102	51	15	147	131	89	45	57	74	M8	101	1 1/2
63	124	117	64	15	168	152	101	45	66	86	M8	114	2
75	166	150	85	15	233	270	136	70	64	206	M8	171	2 1/2
90	200	161	105	15	254	270	141	70	64	206	M8	184	3
110	238	178	123	22	299	320	164	120	64	256	M12	217	4



**SYGEF Standard oil free
3-Way ball valve type 543
Horizontal/T-port
With fusion sockets metric**

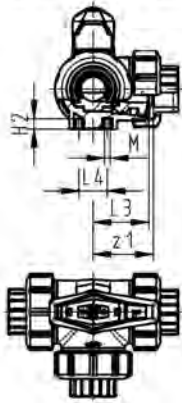
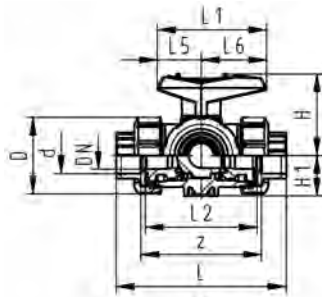
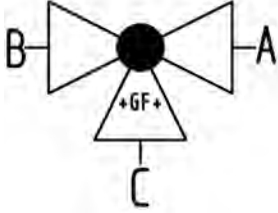
Model:

- Material: PVDF/oil free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
16	10	10	140	175 543 631	1	0.311
20	15	10	200	175 543 632	1	0.319
25	20	10	470	175 543 633	1	0.458
32	25	10	793	175 543 634	1	0.695
40	32	10	1290	175 543 635	1	1.185
50	40	10	1910	175 543 636	1	1.751
63	50	10	3100	175 543 637	1	3.405

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	3/8
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	1/2
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	3/4
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 1/4
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 1/2
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



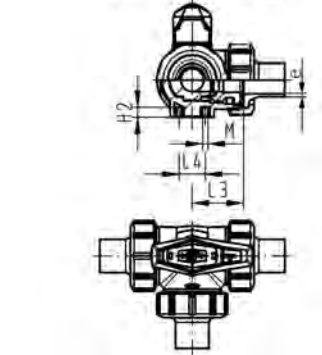
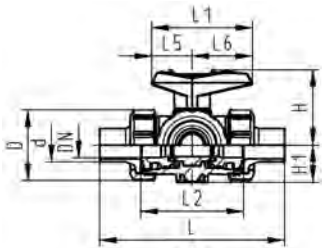
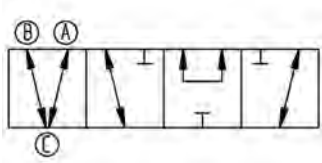
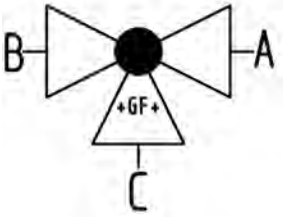
**SYGEF Standard oil free
3-Way ball valve type 543
Horizontal/L-port
With fusion sockets metric**

Model:

- Material: PVDF/oil free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
16	10	10	50	175 543 611	1	0.312
20	15	10	75	175 543 612	1	0.320
25	20	10	150	175 543 613	1	0.423
32	25	10	280	175 543 614	1	0.653
40	32	10	480	175 543 615	1	1.121
50	40	10	620	175 543 616	1	1.778
63	50	10	1230	175 543 617	1	3.462

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	$\frac{3}{8}$
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	$\frac{1}{2}$
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	$\frac{3}{4}$
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	$1 \frac{1}{4}$
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	$1 \frac{1}{2}$
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



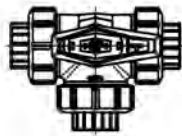
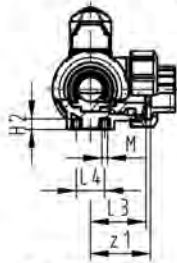
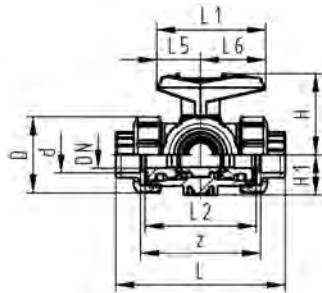
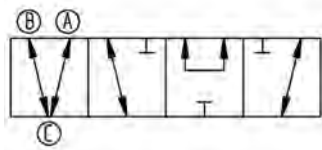
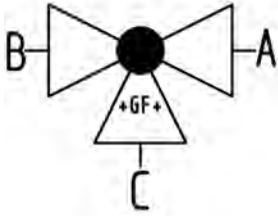
**SYGEF Standard silicone free
3-Way ball valve type 543
Horizontal/T-port
With butt fusion spigots IR-Plus metric**

Model:

- Material: PVDF / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PVDF
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	10	200	175 543 352	1	0.330
25	20	10	470	175 543 353	1	0.478
32	25	10	793	175 543 354	1	0.726
40	32	10	1290	175 543 355	1	1.212
50	40	10	1910	175 543 356	1	1.832
63	50	10	3100	175 543 357	1	3.566

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	57	28	8	146	77	72	36	25	32	45	6	2	1/2
25	58	67	32	8	163	97	85	43	25	39	58	6	2	3/4
32	68	73	36	8	178	97	98	49	25	39	58	6	2	1
40	84	90	45	9	204	128	118	59	45	54	74	8	2	1 1/4
50	97	97	51	9	237	128	135	68	45	54	74	8	3	1 1/2
63	124	116	65	9	296	152	176	88	45	66	87	8	3	2



**SYGEF Standard silicone free
3-Way ball valve type 543
Horizontal/T-port
With fusion sockets metric (US version)**

Model:

- Material: PVDF / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
16	10	10	140	175 543 511	1	0.311
20	15	10	200	175 543 512	1	0.319
25	20	10	470	175 543 513	1	0.458
32	25	10	793	175 543 514	1	0.695
40	32	10	1290	175 543 515	1	1.185
50	40	10	1910	175 543 516	1	1.751
63	50	10	3100	175 543 517	1	3.405

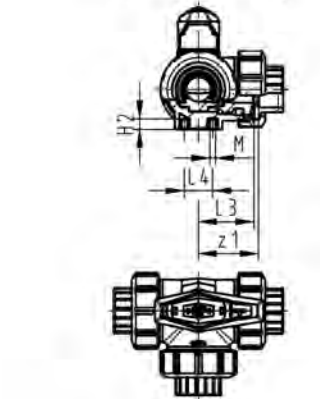
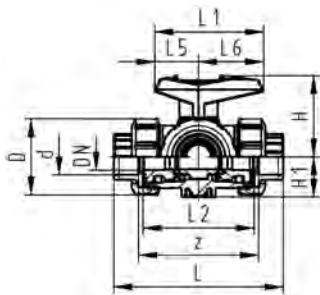
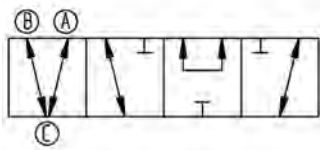
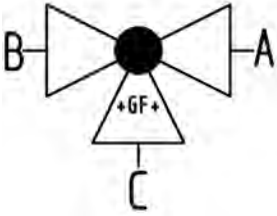
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	$\frac{3}{8}$
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	$\frac{1}{2}$
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	$\frac{3}{4}$
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	$1 \frac{1}{4}$
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	$1 \frac{1}{2}$
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



**SYGEF Standard silicone free
3-Way ball valve type 543
Horizontal/T-port
With fusion sockets metric**

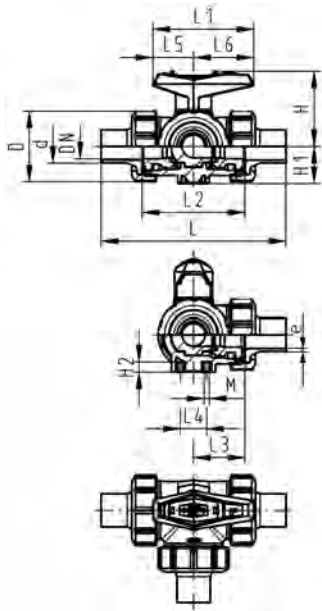
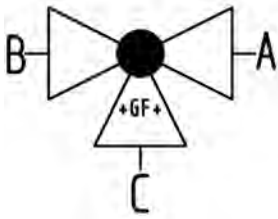
Model:

- Material: PVDF / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PVDF
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
16	10	10	140	175 543 311	1	0.311
20	15	10	200	175 543 312	1	0.319
25	20	10	470	175 543 313	1	0.458
32	25	10	793	175 543 314	1	0.695
40	32	10	1290	175 543 315	1	1.185
50	40	10	1910	175 543 316	1	1.751
63	50	10	3100	175 543 317	1	3.405

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	3/8
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	1/2
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	3/4
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 1/4
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 1/2
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



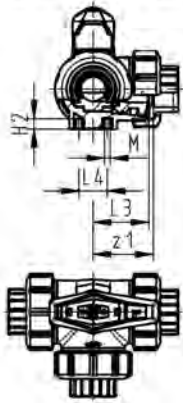
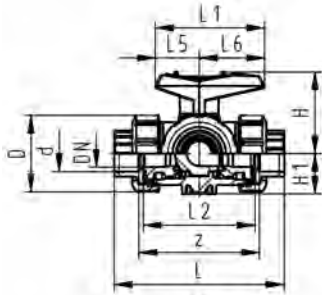
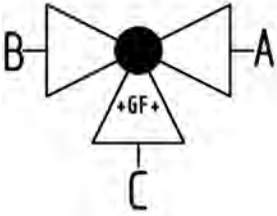
**SYGEF Standard silicone free
3-Way ball valve type 543
Horizontal/L-port
With butt fusion spigots IR-Plus metric**

Model:

- Material: PVDF / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PVDF
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	10	75	175 543 252	1	0.332
25	20	10	150	175 543 253	1	0.480
32	25	10	280	175 543 254	1	0.735
40	32	10	480	175 543 255	1	1.226
50	40	10	620	175 543 256	1	1.859
63	50	10	1230	175 543 257	1	3.624

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	57	28	8	146	77	72	36	25	32	45	6	2	1/2
25	58	67	32	8	163	97	85	43	25	39	58	6	2	3/4
32	68	73	36	8	178	97	98	49	25	39	58	6	2	1
40	84	90	45	9	204	128	118	59	45	54	74	8	2	1 1/4
50	97	97	51	9	237	128	135	68	45	54	74	8	3	1 1/2
63	124	116	65	9	296	152	176	88	45	66	87	8	3	2



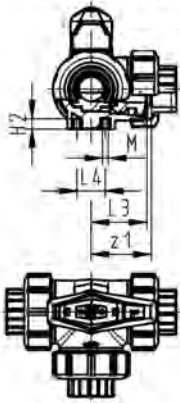
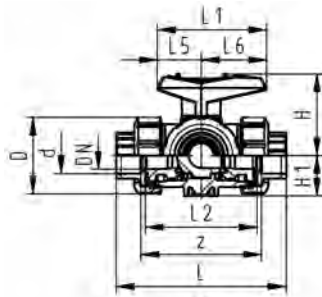
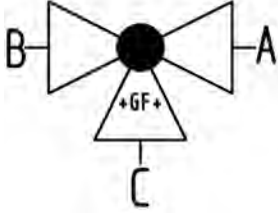
**SYGEF Standard silicone free
3-Way ball valve type 543
Horizontal/L-port
With fusion sockets metric**

Model:

- Material: PVDF / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PVDF
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
16	10	10	50	175 543 211	1	0.312
20	15	10	75	175 543 212	1	0.320
25	20	10	150	175 543 213	1	0.461
32	25	10	280	175 543 214	1	0.704
40	32	10	480	175 543 215	1	1.199
50	40	10	620	175 543 216	1	1.778
63	50	10	1230	175 543 217	1	3.462

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	3/8
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	1/2
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	3/4
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 1/4
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 1/2
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



**SYGEF Standard silicone free
3-Way ball valve type 543
Horizontal/L-port
With fusion sockets metric (US version)**

Model:

- Material: PVDF / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
16	10	10	50	175 543 411	1	0.312
20	15	10	75	175 543 412	1	0.320
25	20	10	150	175 543 413	1	0.461
32	25	10	280	175 543 414	1	0.704
40	32	10	480	175 543 415	1	1.199
50	40	10	620	175 543 416	1	1.778
63	50	10	1230	175 543 417	1	3.462

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	$\frac{3}{8}$
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	$\frac{1}{2}$
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	$\frac{3}{4}$
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	$1 \frac{1}{4}$
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	$1 \frac{1}{2}$
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2

SYGEF Standard

Valves silicone free



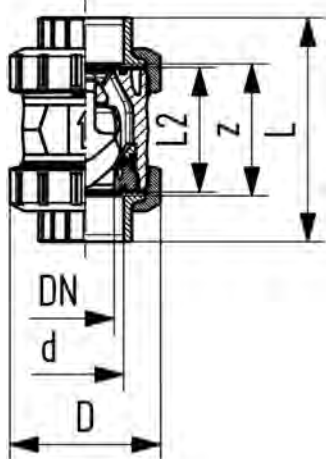


**SYGEF Standard silicone free
Check valve type 562
With fusion sockets metric**

Model:

- Material: PVDF / silicone free cleaned
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	10	16	190	175 562 211	0.160	50	93	56	67	3/8
20	15	16	180	175 562 212	0.160	50	95	56	66	1/2
25	20	16	380	175 562 213	0.340	58	109	65	77	3/4
32	25	16	460	175 562 214	0.360	68	119	71	83	1
40	32	16	850	175 562 215	0.670	84	135	85	99	1 1/4
50	40	16	1080	175 562 216	0.990	97	147	89	105	1 1/2
63	50	16	1670	175 562 217	1.770	124	168	101	117	2
75	65	16	2950	175 562 218	3.630	166	235	136	167	2 1/2
90	80	16	3600	175 562 219	5.800	200	255	141	180	3
110	100	16	4150	175 562 220	9.450	238	305	164	215	4

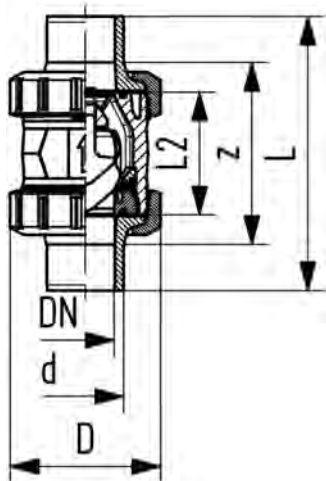


**SYGEF Standard silicone free
Check valve type 562
With socket fusion spigots metric**

Model:

- Material: PVDF / silicone free cleaned
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP Weight (kg)	D (mm)	L (mm)	L2 (mm)	closest inch (inch)
20	15	16	180	175 562 232	1	50	120	56	1/2
25	20	16	380	175 562 233	1	58	139	65	3/4
32	25	16	460	175 562 234	1	68	150	71	1
40	32	16	850	175 562 235	1	84	170	85	1 1/4
50	40	16	1080	175 562 236	1	97	190	89	1 1/2
63	50	16	1670	175 562 237	1	124	220	101	2

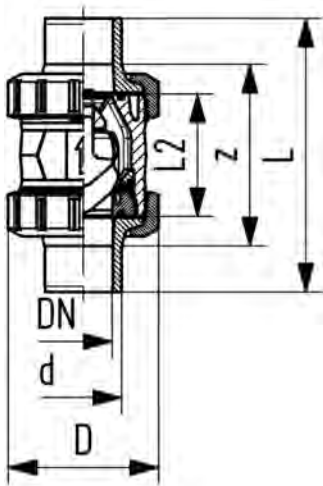


**SYGEF Standard silicone free
Check valve type 562
With fusion spigots IR-Plus metric**

Model:

- Material: PVDF / silicone free cleaned
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
20	15	16	180	175 562 272	0.160	50	130	56	1.9	½
25	20	16	380	175 562 273	0.350	58	143	65	1.9	¾
32	25	16	460	175 562 274	0.380	68	150	71	2.4	1
40	32	16	850	175 562 275	0.660	84	171	85	2.4	1 ¼
50	40	16	1080	175 562 276	1.000	97	191	89	3.0	1 ½
63	50	16	1670	175 562 277	1.790	124	220	101	3.0	2
75	65	16	2950	175 562 278	3.680	166	290	136	3.6	2 ½
90	80	16	3600	175 562 279	5.760	200	310	141	4.3	3
110	100	16	4150	175 562 280	9.270	238	350	164	5.3	4

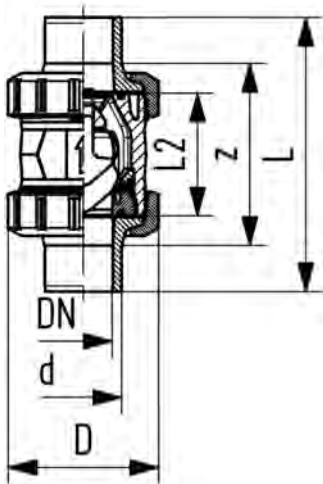


**SYGEF Standard silicone free
Check valve type 561
With butt fusion spigots IR-Plus metric**

Model:

- Material: PVDF / silicone free cleaned
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
20	15	16	180	175 561 272	0.160	50	130	56	1.9	½
25	20	16	380	175 561 273	0.350	58	143	65	1.9	¾
32	25	16	460	175 561 274	0.367	68	150	71	2.4	1
40	32	16	850	175 561 275	0.660	84	171	85	2.4	1 ¼
50	40	16	1080	175 561 276	1.000	97	191	89	3.0	1 ½
63	50	16	1670	175 561 277	1.790	124	220	101	3.0	2
75	65	16	2950	175 561 278	3.680	166	290	136	3.6	2 ½
90	80	16	3600	175 561 279	5.760	200	310	141	4.3	3
110	100	16	4150	175 561 280	9.270	238	350	164	5.3	4

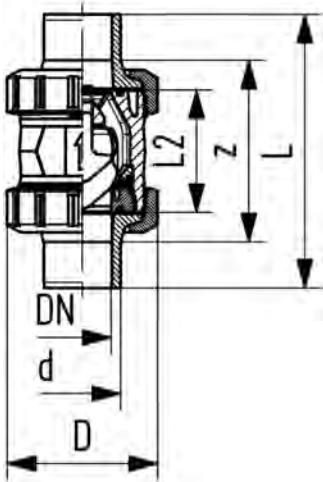


**SYGEF Standard silicone free
Check valve type 561
With socket fusion spigots metric**

Model:

- Material: PVDF / silicone free cleaned
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)	D (mm)	L (mm)	L2 (mm)	closest inch (inch)
20	15	16	180	175 561 232	1	0.170	50	120	56	½
25	20	16	380	175 561 233	1	0.370	58	139	65	¾
32	25	16	460	175 561 234	1	0.400	68	150	71	1
40	32	16	850	175 561 235	1	0.670	84	170	85	1 ¼
50	40	16	1080	175 561 236	1	1.030	97	190	89	1 ½
63	50	16	1670	175 561 237	1	1.830	124	220	101	2

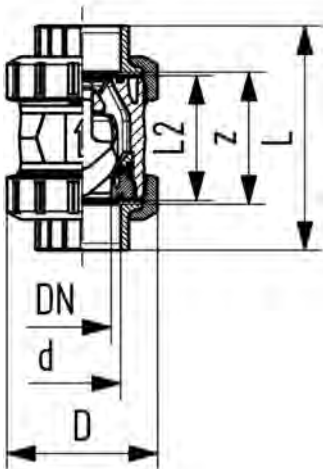


**SYGEF Standard silicone free
Check valve type 561
With fusion sockets metric**

Model:

- Material: PVDF / silicone free cleaned
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	10	16	190	175 561 211	1	0.160	50	93	56	67	¾
20	15	16	180	175 561 212	1	0.160	50	95	56	66	½
25	20	16	380	175 561 213	1	0.340	58	109	65	77	¾
32	25	16	460	175 561 214	1	0.360	68	119	71	83	1
40	32	16	850	175 561 215	1	0.670	84	135	85	99	1 ¼
50	40	16	1080	175 561 216	1	0.990	97	147	89	105	1 ½
63	50	16	1670	175 561 217	1	1.770	124	168	101	117	2
75	65	16	2950	175 561 218	1	3.630	166	235	136	167	2 ½
90	80	16	3600	175 561 219	1	5.800	200	255	141	180	3
110	100	16	4150	175 561 220	1	9.450	238	305	164	215	4

Automation made easy for you

Accurate measurement
Precise control
Reliable actuation

Automation made easy

Measurement, control and actuation. Measurement encompasses a wide range of measurement technologies and parameters. Most of these products are available in plastic and are offered with dedicated fittings, which integrate our sensors perfectly into your piping system. Control comprises various control functionalities (from simple relays to PID controllers) and all major communication technologies. Actuation includes pneumatic, electric and magnetic actuators, which can be seamlessly combined with all kinds of valves and accessories.

The all-in-one solution for your automation needs

Easy to combine

Flexible combination and upgrade

Easy to install

Seamless integration

Easy to connect

State-of-the-art communication technology

Easy to set-up

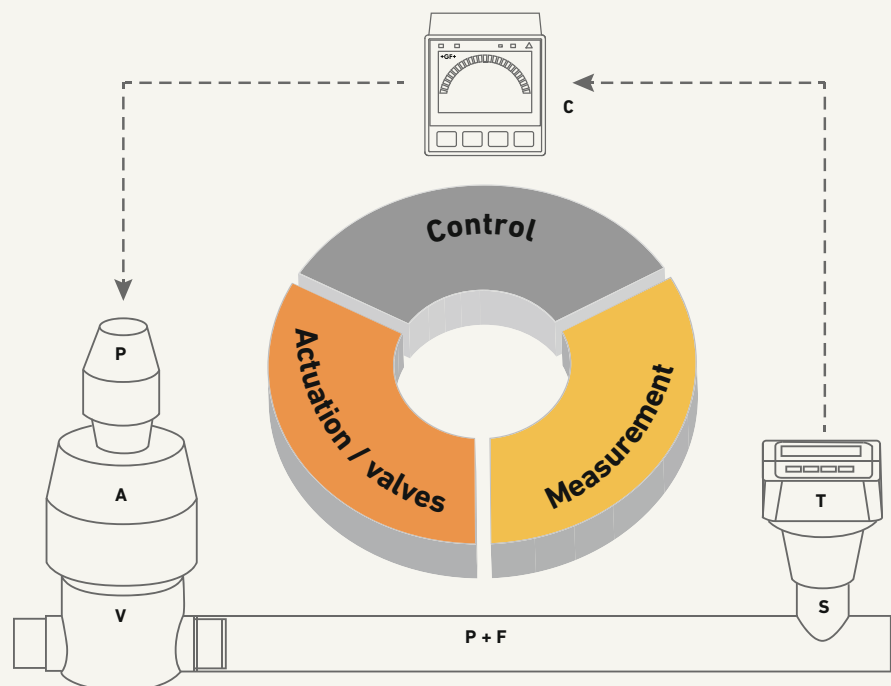
Plug-and-play design

Easy to operate

Intuitive menu structure

Easy to maintain

Wide range of accessories



S: Sensor
T: Transmitter
C: Controller

P: Positioner
A: Actuator

V: Valve
P+F: Pipe & fittings

Measurement
Accurate measurement



Control
Precise control



Actuation
Reliable actuation



Valves
Modular valves



Measurement

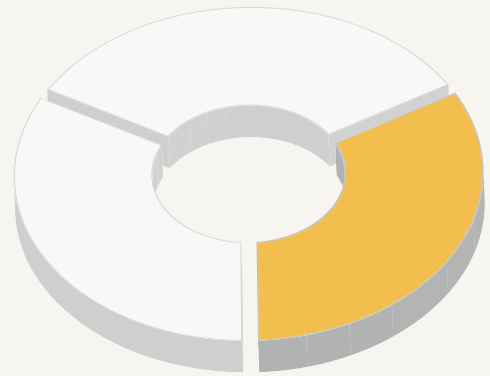
Accurate measurement is the basis for reliable process control



Our measurement offering will cover your needs: flow, pH, conductivity, level, temperature and various water quality parameters. Corresponding to our piping systems, most sensors are available in plastic and are therefore highly resistant to chemicals. Our plug-and-play measurement products are self-explanatory, easy to maintain and offered with suitable installation fittings.

Measurement products

An overview of the key products



Paddlewheel flow sensor



Rotor-X paddlewheel flow sensor type 515

- Non-powered
- 0.3-6 m/s (1 to 20 ft/s)
- DN15-DN900 (½ to 36 in.)
- PP 12.5 bar @ 20 °C (180 psi @ 68 °F)
- PVDF 14 bar @ 20 °C (203 psi @ 68 °F)
- 19.7 Hz per m/s nominal (6 Hz per ft/s nominal)
- Wet tap sensors available



Rotor-X paddlewheel flow type 516

- 0.1-6 m/S (0.3 to 20 ft/S)
- DN15-DN900 (½ to 36 in.)
- DN15-DN100 (½ to 4 in.) for PVC
- PP 12.5 bar @ 20 °C (180 psi @ 38 °F)
- PVDF 14 bar @ 20 °C (203 psi @ 68 °F)
- PVC 14 bar @ 20 °C (203 psi @ 68 °F)
- 49 Hz per m/S nominal (15 Hz per ft/S nominal)



Paddlewheel flow sensor type 2537

- 0.1-6 m/s (0.3 to 20 ft/s)
- DN15-DN200 (½ to 8 in.)
- PP 12.5 bar @ 20 °C (181 psi @ 68 °F)
- PVDF 14 bar @ 20 °C (203 psi @ 68 °F)
- 4-20 mA, digital (S³L), flow switch or pulse outputs (based on part number)



Stainless steel paddlewheel flow sensor - type 2540

- 0.1-6 m/s (0.3 to 20 ft/s)
- DN40-DN900 (1½ to 36 in.)
- 316 stainless steel
- 17 bar @ 100 °C (250 psi @ 212 °F)
- 49 Hz per m/s nominal (15 Hz per ft/s nominal)
- Open collector output



Metalex paddlewheel flow sensor type 525

- 0.5-6 m/s (1.6-20 ft/s)
- DN15-DN300 (½-12 in.)
- 316 stainless steel
- 103 bar (1500 psi @ safety factor 1.5) @ 149 °C (300 °F)
- 39 Hz per m/s nominal (12 Hz per ft/s nominal)

Magmeter



Magmeter (blind or display) type 2551

- 0.05-10 m/s (0.15 to 33 ft/s)
- DN15-DN900 (½ to 36 in.)
- 10.3 bar @ 25 °C (150 psi @ 77 °F)
- 4-20 mA, or frequency/digital (S³L) outputs
- Optional relay outputs



Metal magmeter type 2552

- 0.05-10 m/s (0.15 to 33 ft/s)
- DN50-DN2550 (2 to 102 in.)
- 316 stainless steel & PVDF
- 20.7 bar @ 25 °C (300 psi @ 77 °F)
- 4-20 mA, frequency/digital (S³L)
- Hot-tap using ball or gate valves

When the level ma

Inline flow sensors



**Turbine flow sensor
type 2100**

- 0.38 to 38 lpm (0.10 to 10 gpm)
- DN15 (½ in.)
- PVDF
- 16 bar @ 20 °C (232 psi @ 68 °F)
- Open collector output
- Use with end fitting: 3-2100-31 to 3-2100-38



**Micro-flow rotor sensor
type 2000**

- 0.11 - 12.11 lpm (0.03 - 3.2 gpm)
- ¼ in. NPT or ISO 7/1-R1/4 threads
- Polyphenylene sulphide and PEEK
- 5.5 bar @ 0 ° to 80 °C (80 psi @ 32 °F to 176 °F)
- Open collector output
- Standard cable 7.6 m (25 ft)



**Mini-flow rotor sensor
type 2507**

- 400 - 12 000 mL/m (0.1 to 3.2 U.S. gpm)
- G ¼ in. ports, ¼ in. NPT pipe adapters
- PVDF
- 5.5 bar @ 24 °C (80 psi @ 75 °F)
- Open Collector output
- Standard cable 7.6 m (25 ft)

Displays / transmitters



SmartPro transmitter type 9950

- One instrument for multiple sensor types
- Two different sensor types can be combined in one instrument
- Configurable display
- Derived measurements
- Advanced boolean logic
- Optional modules can be added for additional capabilities
- USB Port for field upgrades using standard USB flash drive



**Flow integral mount
type 9900**

- Local display for sensor mounted instruments
- Provides 4 - 20 mA output
- "At a glance" visibility
- "Dial-type" digital bar graph
- NEMA 4X/IP65



SmartPro transmitter type 9900

- Multi-parameter input selection
- Large auto-sensing backlit display
- "Dial-type" digital bar graph
- Optional field upgradable relays
- Selectable error mode for current outputs, 3.6 mA or 22 mA
- Optional relay, direct conductivity / resistivity, 4 to 20 mA output, and HART modules are available



**Battery powered flow totaliser
type 8150**

- Displays GPS, GPM, GPH, GPD, LPS, LPM, LPH, LPD
- Battery powered
- Single input
- Panel or field mount
- 3 totalisers, auto calibration
- Use with 515 or 525 flow sensors

Variable area flow meters



Variable area flow meters type 335 / 350, SK50-73

- Taper tubes in PVC transparent, PA, PSU, PVDF
- Union connection with PVC (std)
- DN10 - DN65 (3/8" - 3 1/2")
- PN10
- Optional switch feedback
- Special scales on request

Ultrasonic flow meters



Portaflow portable ultrasonic flow meter - type 330 / 220

- 0.1 m/s - 20 m/s
- d13 - d2000
- Battery powered, AC 110 - 240 V
- Output: 0/4 to 20 mA, RS 232, USB, pulse
- Data logger (type 330)
- Transit time measurement



Ultraflow wall mount ultrasonic flow meter - type 3000 / 4000

- 0.1 m/s - 20 m/s
- d13 - d2000
- DC 24 V or AC 86 - 240 V
- Output 0/4 to 20 mA, RS 232, USB, pulse
- Data logger (type 4000)
- Transit time measurement



Ultrasonic flow meter type U1000

- 0.1 m/s - 10 m/s
- d25 - d115
- DC 12 - 24 V
- Output: 4 - 20 mA, pulse or frequency
- Transit time measurement

Easy to install

pH/ORP sensors and instruments



SmartPro transmitter type 9950

- One instrument for multiple sensor types
- Two different sensor types can be combined in one instrument
- Configurable display
- Derived measurements
- Advanced boolean logic
- Optional modules can be added for additional capabilities
- USB Port for field upgrades using standard USB flash drive



SmartPro transmitter type 9900

- Multi-Parameter input selection
- Large auto-sensing backlit display
- "Dial-type" digital bar graph
- Optional field upgradable relays
- Selectable error mode for current outputs, 3.6 mA or 22 mA
- Optional relay, direct conductivity/resistivity, 4 to 20 mA output, and HART modules are available



Threaded DryLoc pH/ORP electrode - type 2774-2777

- 0 - 14 pH, $\pm 2,000$ mV ORP
- Ryton body, PTFE junction
- Use sensor $\frac{3}{4}$ " threads for mounting
- DryLoc preamplifier connection with gold plated pins
- Suitable for submersible applications
- For use with 2750/2760 preamplifiers



DryLoc pH/ORP electrodes type 2724-2726

- 0 - 14 pH, $\pm 2,000$ mV ORP
- Ryton body, PE junction
- Use fittings for in-line applications or $\frac{3}{4}$ " NPT or ISO
- Suitable for submersible applications
- DryLoc preamplifier connection with gold plated pins



Differential DryLoc pH/ORP electrodes type 2764-2767

- 0 - 14 pH, $\pm 2,000$ mV ORP
- Ryton body, PTFE junction
- Use sensor 1 inch threads for mounting
- DryLoc preamplifier connection with gold plated pins
- For use with 2750/2760 preamplifiers



pH/ORP Wet-Tap assembly - type 3719/2756, Wet-Tap electrodes type 2757

- Use a wet-tap style sensor for 0 - 14 pH, $\pm 2,000$ mV ORP
- CPVC, PVC
- 1 $\frac{1}{2}$ or larger
- 1 $\frac{1}{2}$ or 2 NPT, ISO 7/1 - R1.5 or R2
- Electrode removal without process shutdown



DryLoc pH/ORP electrodes for harsh applications - type 2734-2736

- Enhanced reference and bridge gels to resist chemical poisoning
- Ryton (PPS) body and PTFE junction for broad range of chemical compatibility
- PTFE reference junction resists fouling and chemical attack
- Mounts in Signet standard fittings from DN15 to DN100 ($\frac{1}{2}$ to 4 in.)



DryLoc pH/ORP Smart Sensor Electronics type 2751

- -1 - 15 pH, $\pm 2,000$ mV ORP
- PBT, CPVC (PVC-C)
- Probe health monitoring, glass impedance and broken glass detection
- Memory chip interface
- Use with 8900, 9900 and 9950
- In-line and submersible versions available



Conductivity/resistivity sensors and instruments



SmartPro transmitter type 9950

- One instrument for multiple sensor types
- Two different sensor types can be combined in one instrument
- Configurable display
- Derived measurements
- Advanced boolean logic
- Optional modules can be added for additional capabilities
- USB Port for field upgrades using standard USB flash drive



SmartPro transmitter type 9900

- Multi-parameter input selection
- Large auto-sensing backlit display
- "Dial-type" digital bar graph
- Optional field upgradable relays
- Selectable error mode for current outputs, 3.6 mA or 22 mA
- Optional relay, direct conductivity/resistivity, 4 to 20 mA output, and HART modules are available



Dual-channel conductivity controller - type 8860

- Displays μS , mS , $\text{K}\Omega$, $\text{M}\Omega$, PPM
- AC or DC supply
- Up to 2 sensor inputs
- Up to 2 Open collector outputs and 4 relay outputs
- Up to 3 active current outputs
- % reject, % recovery and ratio functions



Conductivity sensor electronics with PVDF type 2850

- 0.055 - 400 000 μS (0.02 - 200 000 ppm) (18.2 $\text{M}\Omega$ - 1 $\text{K}\Omega$)
- PBT (integral mount) /PBT/CPVC (universal J-box)
- Integral systems connect to the 2839 series electrodes or 2819 series electrode via 3-286X universal j-box assembly
- 4 - 20 mA or digital (S³L)
- Factory NIST certified



Conductivity integral system with 9900 transmitter

- Local display for sensor mounted instruments
- Provides 4-20 mA output
- "At a glance" visibility
- "Dial-type" digital bar graph
- NEMA 4X/IP65



PVDF conductivity electrodes type 2839-1V(D) - 2842-1V(D)

- 0.055-200 000 μS (0.02-100 000 ppm) (18.2 $\text{M}\Omega$ - 1 $\text{K}\Omega$)
- 316 SS and PVDF
- Dual threaded NPT or ISO
- Connection to 9900 - 1, 8900 instruments or 2850 sensor electronics
- NIST certificate



Conductivity/resistivity electrodes type 2818-2823

- 0.055 - 400 000 μS (0.02-200 000 ppm) (18.2 $\text{M}\Omega$ - 1 $\text{K}\Omega$)
- 316 SS or titanium (hastelloy-C also available upon request)
- Reversible threads or sanitary flange connections
- Connect to 2850 sensor electronics

Dual-Channel ProcessPro's -3 are still available

Temperature and pressure sensors and instruments



SmartPro transmitter type 9950

- One instrument for multiple sensor types
- Two different sensor types can be combined in one instrument
- Configurable display
- Derived measurements
- Advanced boolean logic
- Optional modules can be added for additional capabilities
- USB port for field upgrades using standard USB flash drive



SmartPro transmitter type 9900

- Multi-parameter input selection
- Large auto-sensing backlit display
- "Dial-type" digital bar graph
- Optional field upgradable relays
- Selectable error mode for current outputs, 3.6 mA or 22 mA
- Optional relay, direct conductivity/resistivity, 4 to 20 mA output, and HART modules are available



Temperature integral system with 9900 transmitter

- Local display for sensor mounted instruments
- Provides 4 - 20 mA output
- "At a glance" visibility
- "Dial-type" digital bar graph
- NEMA 4X/IP65



Temperature sensor type 2350

- In-line mounting: 10 °C to 100 °C (14 ° - 212 °F)
- Submersible mounting: 10 °C to 85 °C (14 ° - 185 °F)
- PVDF
- 3/8 inch dual threaded for in-line or submersible installation
- 4 - 20 mA or digital (S³L)



Pressure integral system with 9900 transmitter

- Utilizes the 2450 sensor for pressure or hydrostatic level measurement
- Local display for sensor mounted instruments
- Provides 4 - 20 mA output
- "At a glance" visibility
- "Dial-type" digital bar graph
- NEMA 4X/IP65



Pressure sensor type 2450

- 0 - 0.7 bar (0 - 10 psig) - U
- 0 - 3.4 bar (0 - 50 psig) - L
- 0 - 17 bar (0 - 250 psig) - H
- Vacuum range available
- Wetted material: PVDF, ceramic and FKM
- 1/2" union, dual threaded
- 4 - 20 mA or digital (S³L)

Level sensors and transmitters



Non-contacting radar level transmitter type 2290

- Non-contacting
- Robust against most interfering factors such as fumes, light foaming or fluctuations of pressure or temperature
- Display and comprehensive configuration menu
- PP, PTFE or steel antenna enclosures



Guided radar level transmitter type 2291

- Reliable guidance of measuring signal along probe
- Advanced resilience in case of extreme fumes, thick foam layers or agitation
- Great performance also on media of low dielectric constants
- Special coatings for probes available: PP, PFA and FEP



Ultrasonic integral level transmitter type 2260

- Non-contact principle
- Narrow 5 and 6 ° beam
- Range: 4, 6, 15 meters (13, 20, 50 ft)
- 4 - 20 mA, HART, relay output
- PP and PVDF bodies
- ATEX versions
- Quick-set and advanced menu
- Large multi-parameter display
- Allows for open channel measurement



Ultrasonic level sensor type 2270

- Non-contact principle
- Narrow 5 and 6 ° beam
- Range: 4, 6, meters (13, 20 ft)
- 4 - 20 mA, HART
- PP and PVDF bodies
- Easy to use EView programming software
- Allows for open channel measurement



Hydrostatic level sensor type 2250

- 0 - 10 psi = 0 - 7.03 m = 0 - 23.06 ft
- 0 - 50 psi = 0 - 35.15 m = 0 - 115.32 ft
- Wetted material: PVDF, PVC, ceramic and FKM
- Submersible sensor
- 4 - 20 mA or digital (S³L)
- Uses hydrostatic pressure for level and depth control

Point level switches



**Vibration forks
type 2280**

- For safe operation in critical applications
- Cable, DIN connector and connection terminals
- Easy wiring in various applications
- No moving parts
- No maintenance costs



**Ultrasonic gap switch
type 2284**

- PPS Full-plastic body
- Reliable point level detection even in very corrosive or viscous liquids
- Optimized chemical compatibility
- Compact size
- Easy installation in pipes and small systems
- Robust ultrasonic principle even in highly viscous liquid



**Conductive multipoint switch
type 2281**

- Individual cutting of electrodes
- Most economic solution to indicate multiple point levels
- Easy adaptation of switching points on site
- Up to 4 switching points in one sensor
- 4 times faster installation
- Cost effective solution



**Guided float switch
type 2282**

- PP or PVDF full-plastic body
- Compact and cost attractive solution for small vessels
- Optimized chemical compatibility
- Ultra compact housing
- Easy installation in compact systems



**Float switch
type 2285**

- Double chambered enclosure
- Easiest way to monitor point levels in open tanks and basins
- High operational safety
- Mercury free switching contact
- Safe use in drinking- and waste water applications

Water analysis



**Chlorine analyzer system
type 4630**

- Continuous free chlorine measurement without chemical reagents
- Optional pH sensor for increased accuracy
- Pre-wired panel for easy installation
- Built in pressure regulator and variable area flow meter



**Turbidimeter
type 4150**

- Complies with U.S. EPA 180.1 or ISO7027
- Two adjustable alarm relays
- Built-in pressure regulator
- Easy access for wiring and maintenance
- Optional auto cleaning for reduced maintenance



Process optical dissolved oxygen sensor type 2610

- Optical DO measurement with no flow requirements
- No membranes or filling solutions
- Flexible communications, 4 to 20 mA or modbus 3-2610-41
- Measurement range: 0-20 mg/L, 0-200 % saturation



**Chlorine dioxide system
type 4632**

- Complete turnkey system – no additional parts required to install
- Now available with a flow switch interrupt (chlorine and chlorine dioxide)
- Complies with EPA standard 334.0
- Chemical free measuring system – 0-2 ppm
- Optional pH measurement

Easy to monitor

Easy to operate

Accessories



Switching power supplies type 7310

- Universal AC input/full range
- Protections: short circuit/overload/over-voltage
- Cooling by free air convection
- Install on DIN rail TS-35/7.5 or 15
- Built in DC OK active signal
- LED indicator for power on



i-GO signal converter type 8058

- Connects third party 4-20 mA signals to the 8900 and 9900
- Available for single or dual 4-20 mA sensor inputs
- Compatible with 8900, 9900



8059 external relay module

- AC and DC powered versions
- External relays controlled by host instrument
- Digital pass-through (DC versions) to simplify wiring
- Relay can be tested locally, and also via the host instrument
- Only compatible with 8900



HART – USB modem

- HART to USB converter
- Portable or DIN rail version
- ATEX



pH/ORP system tester type 2759

- Battery powered
- Simulates pH and ORP
- Compatible with 2750 and 2760 preamp
- Connects to any pH/ORP instrument



Configuration tool type 0252

- Back up and restore SmartPro transmitters and blind sensors
- Configurations to a computer file
- User-friendly interface
- Configure settings such as instrument type, units, scale 4 to 20 current loops and modify labels from the computer
- Use a single file to clone multiple
- SmartPro transmitters and blind sensors



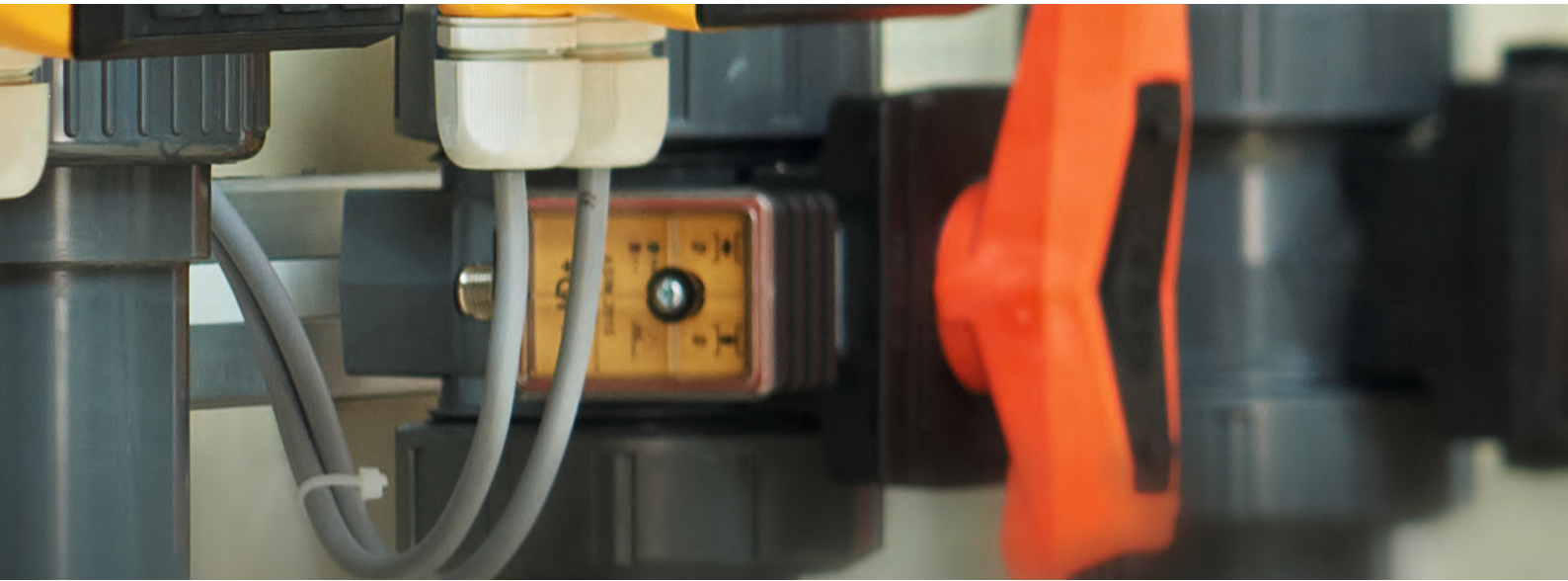
Conductivity/resistivity tools type 2850 - 101 - X

- Available in 5 different values
- Verifies electronic independent of electrode
- Compatible with all conductivity and resistivity instruments
- Temperature compensated to 25 °C



Flow wet-tap valve type 3519

- DN15 - DN900 (½ to 36 in.)
- PVC
- 7 bar @ 20 °C (100 psi max @ 68 °F)
- Use with wet-tap paddlewheel flow sensors type 515 and 2536



**Buffer solutions
type pH/ORP**

- NIST Traceable
- Easily identifiable colour coded buffer solutions
- Liquid or powder versions
- Temperature compensated values
- Kits for easy use



**Wall mount
accessory kit**

- Compact enclosure that works with 9900 transmitter and other 1/4 DIN size instruments
- Equipped with a 1/4 DIN cutout and two 1/2" holes at the base
- Mounting hardware and liquid tight connectors are included



**Calibration kits for turbidimeter
type 4150**

- Stable pre-mixed standards that are certified accurate
- Sealed calibration cuvettes
- Shelf-life 12 months
- Easy to follow instructions
- Kits for easy use



**Limit contacts GK 10/GK11 for
type 335/350 and short version**

- Reed contact
- IP65
- 230 V



**4 - 20 mA sensor GK 15 for VAFM
type 335/350**

- 12 - 24 V DC
- IP 65
- 4 - 20 mA (3 wire)



Rear enclosure kits for 9900

- Compatible with all existing 9900-1P transmitters
- NEMA TYPE 4X/IP66 rated for indoor or outdoor installations
- Spacious for any 9900 transmitter accessory module
- Hinged cover design for easy to access wiring
- Hinged cover suitable for wall mount or pipe mount installations



**Formazin stock kit for turbidimeter
type 4150**

- Turbidity standard for most any value
- Three different graduated pipettes included
- Four glass cuvettes with light shield caps
- Easy to follow instructions

Easy to connect

Installation fitting tees



Plastic - metric tees

- ABS* DN20 - DN50
- PVC DN15 - DN50
- PP DN15 - DN50
- PVDF DN15 - DN50
- PE DN15 - DN50



Plastic - fiberglass tees

- Fiberglass 1.5 - 2.0" / SCH 80
- Special order 1/2 saddles available up to 12 inch / DN 300



Plastic - PVC tees

- PVC 0.50 - 2.0" / SCH 80
- PVC-C 0.50 - 2.0" / SCH 80
- PVC BSP* 0.50 - 2.0"
- Fiberglass 1.50 - 2.0" / SCH 80



Metal - tees

- Carbon steel NPT 0.50 - 2.0" / SCH 40
- Copper sweat-on 0.50 - 2.0" / SCH K
- Galvanized iron NPT 1.00 - 2.0" / SCH 40



Metal - tees

- 316 SS NPT 0.50 - 2.00" / SCH 40
- Brass NPT 1.00 - 2.00" / SCH 40

* BSP and ABS fittings are available through your local Georg Fischer sales company.

Weldolets / brazolets



Weldolet

- PVC-U DN65 - DN600
- PP DN65 - DN600
- PE DN65 - DN600
- PVDF DN65 - DN600
- SS DN50 - DN630



Weldolets / brazolets

- Carbon steel 2.5 - 12.0" / SCH 40
- Brass 2.5 - 12.0" / SCH 40
- 316 SS 2.5 - 12.0" / SCH 40

Metalex



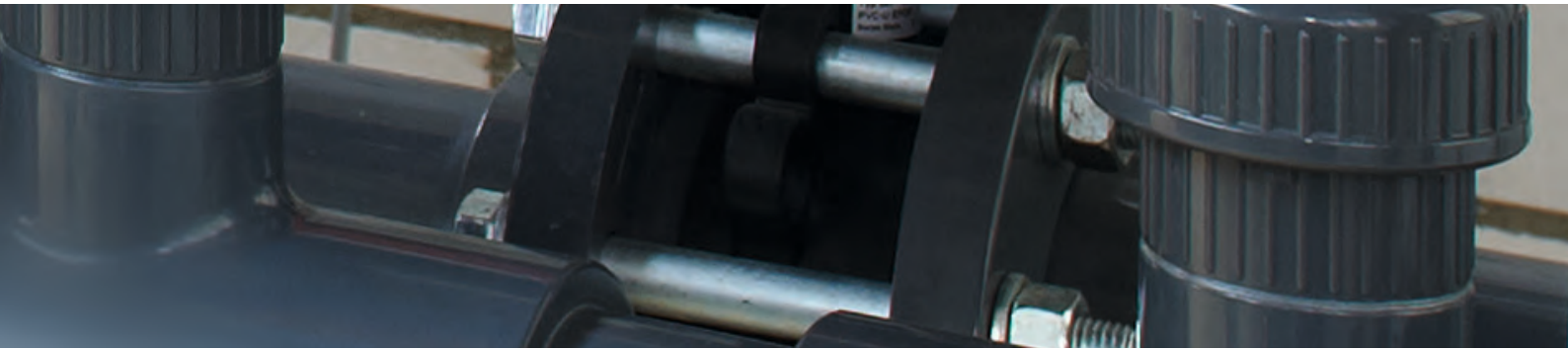
Metalex

- SS socket 0.50 - 1.00"
- SS weld-on 1.25 - 12"



Metalex weld-on mini-tap

- 1.25 - 12"



Wafer fittings



Wafer

- PP DN65 - DN300 (2.5 - 4.0")
- PVDF DN65 - DN200 (3.0")

Saddles



Electrofusion transition

- PE 2.0 - 12.0"



Electrofusion

- PE DN65 - DN400



Clamp-on

- PVC 2.0 - 8.0"/SCH 80
- PVC-U metric DN65 - DN200
- BSP 3" - 6"



PVC-U Glue-on

- PVC 10" - 12"/SCH 80
- Special order up to 20 inch



Strap-on

- Iron 2.0 - 12.0"/SCH 80
- Schedule 80 available up to 48 inches/DN 1200
- Sch 52 and K9 metric ductile iron saddle 56 to 400 mm



Glue-on

- PVC-U DN65 - DN300
- ABS DN65 - DN200

Control

Precise control
throughout your automation loop

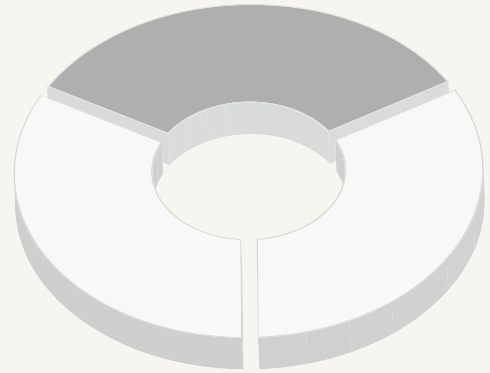
Clever design makes life easy. All our measurement parameters can be connected with one and the same transmitter, a true multi-parameter controller. Additional functionalities like batch control or communication technologies can be added anytime because of the modular design. Our control products are simple to operate, have intuitive menu structures and can be upgraded modularly.



Control

Control products

An overview of the key products



Multi-parameter instruments



SmartPro transmitter type 9900

- Multi-parameter input selection
- Large auto-sensing backlit display
- „Dial-type“ digital bar graph
- Optional field upgradable relays
- Selectable error mode for current outputs, 3.6 mA or 22 mA
- Optional relay, direct conductivity/resistivity, 4 to 20 mA output, and HART modules are available



Multi-parameter/multi-channel controller type 8900

- AC or DC power option
- Up to 6 sensor inputs (2 frequency inputs max)
- Up to 4 - 20mA outputs
- Up to 8 relays
- Use with all digital (S³L) sensors



Dual channel transmitter type 9950

- Independent dual channel multi-parameter, flow, pH, ORP, conductivity, resistivity, pressure, temperature, level, volume, salinity, dissolved oxygen, other (4 to 20 mA)
- 2 Passive 4 to 20 mA loop outputs standard
- Options for up to 4 relays – dry contact or solid state
- Derived functions: ratio, difference, sum, % rejection, % recovery

Modules



Modules type 9900

- 2 mechanical relays module
- Direct conductivity module
- HART communication module
- Batch module
- Additional 4 to 20 mA output module



Modules type 9950

- 4 mechanical relays module
- 2 mechanical relays and 2 solid state relays module
- 2 mechanical relays with 4 binary input modules

Accessories



i-GO signal converter type 8058

- Connects third party 4 - 20 mA signals to the 8900 and 9900
- Available for single or dual 4 - 20 mA sensor inputs
- Compatible with 8900, 9900
- Requires programming at the factory with the 8350, 8450



PID controller type 3216

- Easy set-up
- Auto-tune
- 24 V or 100 - 230 V
- External set-point
- Manual override via push button
- Compact design

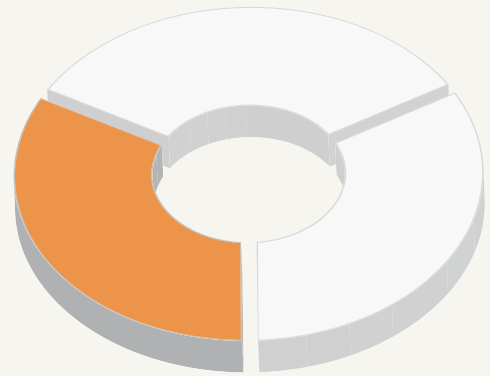
Actuation

Reliable actuation with configuration flexibility

With our modular set-up, valves and actuators can be combined flexibly and additional functionalities, like positioners or monitoring devices, can be added optionally. Naturally, we offer the whole range in all-plastic designs, which are capable of withstanding harsh environments. A wide range of pressure regulating valves and accessories complete our actuation portfolio.

Actuation products

An overview of the key products



Actuators electric and pneumatic



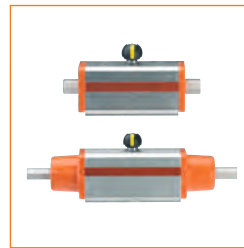
- Electric actuators type EA15**
- Replaces type E11
 - 100 - 230 V AC, 24 V AC/DC
 - Torques from 20 Nm
 - LED enforced position feedback
 - Standard: position feedback, heater
 - Optional: fail-safe return unit integrated



- Electric actuators type EA25, EA45, EA120, EA250**
- Replaces type EA21 - 42
 - 100 - 230 V AC, 24 V AC/DC
 - Torques from 25 Nm - 250 Nm
 - LED enforced position feedback
 - Standard: position feedback, heater
 - Optional: fail-safe return unit integrated, positioner, monitoring, profibus DP VO



- Pneumatic actuator type PA11/PA21**
- FC, FO, DA
 - Rack and pinion principle
 - Accessory interface acc. ISO5211
 - Visual position indication
 - Full plastic solution
 - PA11: 10 Nm / PA21: 20 Nm



- Pneumatic actuator type PA30 - PA90**
- FC, FO, DA
 - Scotch Yoke principle
 - Accessory interface acc. ISO5211
 - Visual position indication
 - Adjustable end stops
 - Various coatings on request

Actuated butterfly valves



- Butterfly valve electric type 145/146/147***
- Electric actuated butterfly valve
 - Actuator type: EA45/120/250 (24 V, 110 - 230 V)
 - Plastic butterfly valve wafer/lugstyle
 - Butterfly valve type 567/578
 - PVC-U, PVC-C, ABS, PP-H, PVDF
 - 567: DN50 - DN600; 578: DN50 - DN300



- Butterfly valve electric type 038-E/039-E**
- Electric actuated butterfly valve
 - Actuator type: EA45/120/250 (24 V, 110 - 230 V)
 - Metal butterfly valve wafer/lugstyle
 - Butterfly valve type 038/039
 - 038/039: Ductile iron with powder/epoxy/rilsan coating
 - 038: DN50 - DN600, 039: DN50 - DN1200

* Predecessor type 140/143/144 with electric actuators type EA31/42

Easy to modify

Actuated butterfly valves



**Butterfly valve pneumatic
type 240/243/244**

- Pneumatic actuated butterfly valve
- Actuator type: PA30-PA90
- Plastic butterfly valve wafer/lugstyle
- Butterfly valve type 567/578
- PVC-U, PVC-C, ABS, PP-H, PVDF
- 567: DN50 - DN600; 578: DN50 - DN300



**Butterfly valve pneumatic
type 038 - P/039 - P**

- Pneumatic actuated butterfly valve
- Actuator type: PA30 - PA70
- Metal butterfly valve wafer/lugstyle
- Butterfly valve type 038/039
- 038/039: ductile iron with powder/epoxy coating/rilsan coating
- 038: DN50 - DN600; 039: DN50 - DN1200

Actuated ball valves



**Pneumatic ball valve
type 230 - 235**

- Pneumatic actuated 2-way ball valve
- Actuator type: PA11/PA21 (<DN65)
- Actuator type: PA30-PA90 (>DN50)
- Ball valve 546
- ABS, PVC-C, PVC-U, PP-H, PVDF
- DN10 - DN100



**Pneumatic ball valve
type 285 - 288**

- Pneumatic actuated 3-way ball valve
- Actuator type: PA11/PA21
- Actuating angle 90°
- Ball valve 543
- ABS, PVC-C, PVC-U, PP, PVDF
- DN10 - DN50



**Electric ball valve
type 179 - 184***

- Electric actuated 2-way ball valve
- Actuator type: EA25/45/120 (24 V, 110 - 230 V)
- Actuating angle 90°
- Ball valve 546
- ABS, PVC-C, PVC-U, PP-H, PVDF
- EA25 DN10-DN50; EA45 /120 DN65-DN100



**Electric ball valve
type 167 - 170****

- Electric actuated 3-way ball valve
- Actuator type: EA25 (24 V, 110-230 V)
- Actuating angle 90°; max. 180°
- Ball valve 543
- ABS, PVC-C, PVC-U, PP, PVDF
- DN10 - DN50



**Electric ball valve
type 127**

- Electric actuated 2-way ball valve
- Actuator type: EA15 (24 V, 110-230 V)
- Actuating angle 90°
- Ball valve 546
- ABS, PVC-C, PVC-U, PP-H, PVDF
- DN10-DN50



**Electric ball valve
type 104**

- Electric actuated 2-way ball valve
- Actuator type: EA04 (24V, 85-230V)
- Actuating angle 0 - 90°
- Ball valve 546
- PVC-C, PVC-U, PP-H
- DN10 - DN50 3/8 - 2"
- Limited accessory range
- Low cycle applications

* Predecessor type 130 - 135 with electric actuators type EA21 / 31

** Predecessor type 185 - 188 with electric actuator type EA21

Actuation

Actuated diaphragm valves



**Diaphragm valve
type 604 / 605**

- PVC-U, PVC-C, PP-H, PVDF
- EPDM, FKM, PTFE / EPDM, PTFE / FKM
- DN15
- PN6
- pneumatic actuated FC, FO, DA



**Diaphragm valve
DIASTAR TenPLUS**

- ABS, PVC-U, PVC-C, PP-H, PVDF, PVDF-HP
- EPDM, FKM, PTFE/EPDM, PTFE/FKM
- DN15 - DN50
- PN10 (both sides)
- pneumatic actuated FC, FO, DA
- Accessories available



**Diaphragm valve DIASTAR
Six**

- ABS, PVC-U, PVC-C, PP-H
- EPDM, FKM
- DN15 - DN50
- PN6
- pneumatic actuated FC



**Diaphragm valve
DIASTAR Sixteen**

- PVDF, PVDF-HP
- EPDM, FKM, PTFE/EPDM, PTFE/FKM
- DN15 - DN50
- PN16
- pneumatic actuated FC, FO, DA
- Accessories available



**Diaphragm valve
DIASTAR Ten**

- ABS, PVC-U, PVC-C, PP-H, PP-N, PVDF, PVDF-HP
- EPDM, FKM, PTFE/EPDM, PTFE/FKM
- DN15 - DN50
- PN10
- pneumatic actuated FC, FO, DA
- Accessories available



**Diaphragm valve
DIASTAR 025**

- ABS, PVC-U, PVC-C, PP-H, PVDF, PVDF-HP
- EPDM, FKM, PTFE/EPDM, PTFE/FKM
- DN65 - DN150
- up to PN10
- pneumatic actuated FC, FO, DA
- Accessories available

Actuated process control valves



**Solenoid valve
type 157**

- direct acting pivoted armature valve
- 2/2-Ways
- PVC-U
- EPDM, FKM
- 230 V AC, 24 V AC, 24 V DC
- DN4 - DN8
- 0 - 4 bar depending on dimension



**Solenoid valve
type 160/161**

- direct acting pivoted armature valve
- 2/2- or 3/2-ways
- PVC-U
- EPDM, FKM
- 230 V AC, 24 V AC, 24 V DC
- DN10 - DN20
- 0 - 3 bar depending on dimension



**Solenoid valve
type 165**

- pilot assisted solenoid valve
- 2/2-Ways
- PVC-U, PVDF
- EPDM, FKM
- 230 V AC, 110 V AC, 24 V AC, 24 V DC
- DN15 - DN50
- 0.5 - 6 bar



**Solenoid valve
type 166**

- direct acting pivoted armature valve
- 2/2- or 3/2-Ways
- PVC-U, PVDF
- EPDM, FKM
- 230 V AC, 110 V AC, 24 V AC, 24 V DC
- DN3 - DN5
- 0 - 10 bar depending on dimension

Easy to regulate

Pressure regulating valves



Pressure reducing valve type 582

- PVC-U, CPVC, PP-H, PVDF
- Spigot or union connection
- O-ring Material: EPDM, FKM
- DN10 - DN50
- 0.5 - 9 bar or 0.3 - 3 bar
- Manometer with or without gauge guard optional



Pressure retaining valve type 586

- PVC-U, CPVC, PP-H, PVDF
- Spigot or union connection
- O-ring Material: EPDM, FKM
- DN10 - DN50
- 0.5 - 9 bar or 0.3 - 3 bar
- Manometer with or without gauge guard optional



Pressure reducing valve type V82

- PVC-U, PP, PVDF
- EPDM, EPDM-PTFE-coated
- V82 DN65 - 80: 0.5 - 6 bar
DN100 0.5 - 4 bar



Pressure retaining valve type V86

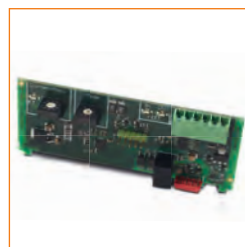
- PVC-U, PP, PVDF
- EPDM, EPDM-PTFE-coated
- V86 DN65 - 80: 1 - 6 bar
DN100: 1 - 4 bar

Electric accessories



Monitoring board (EA25 - 250)

- Easy monitoring for on/off actuation
- "Plug & Play" installation
- Cycle time extension
- Cycle time monitoring
- Cycle counter
- Motor current monitoring



Positioner (EA25 - 250)

- Input 4 - 20mA or 0 - 10V (can be inverted)
- Output/Feedback 4.20mA (can be inverted)
- Motor current monitoring on board
- "Plug & Play" installation



Fail-safe return unit (E15 - 250)

- Integrated battery including charging management
- Error messages for low battery
- Optional fail safe open/fail safe close
- Optional without battery for external 24V DC source



Profibus (EA25 - 250)

- Version DP V0
- M12 connectors for daisy chain
- Integrated in actuator housing (no external box)
- Can be used in combination with fail-safe return unit
- Monitoring or positioner can be activated via software



Pneumatic accessories



Solenoid pilot valve 3/2-ways type PV94

- 230 V, 50 - 60 Hz
- 115 V, 50 - 60 Hz
- 24 V, 50 - 60 Hz
- 24 V DC
- G $\frac{1}{8}$, G $\frac{1}{4}$, G6mm
- DN1.2



Solenoid pilot valve 3/2-ways type PV95

- 230 V, 50 - 60 Hz
- 115 V, 50 - 60 Hz
- 24 V, 50 - 60 Hz
- 24 V DC
- G $\frac{1}{8}$, G $\frac{1}{4}$
- DN1.5 - DN2



Solenoid Pilot valve type 2000

- Modular version for 3/2-way and 5/2-way valves
- 24 V DC
- Connection module AS-Interface
- Connection module profibus interface



Solenoid pilot valve type MNL 532

- Version for 3/2-way and 5/2-way
- Namur connection
- Material of body: Aluminium
- 24 V AC, 24 V DC, 48 V AC, 110 V AC, 230 V AC



Electric position feedback type ER 52-1/ER53-1

- For pneumatic stroke actuators
- For DIASTAR Ten, TenPLUS, Sixteen, 025
- Mechanical switches (AgNi or Au)
- NPN/PNP, Namur connection
- With visual position indication



Electric position feedback limit switch box

- For pneumatic rotary actuators
- For PA11 - 90:
- Mechanical switches (AgNi or Au)
- NPN/PNP, Namur connection
- With visual position indication



Stroke limiter/ manual override

- For DIASTAR all type Ten, TenPLUS, Sixteen, 025



Digital electro-pneumatic positioner type DSR 500

- Mounted on pneumatic control valves
- Linear and rotary actuators
- Nominal stroke 3 - 28 mm
- Self-learning
- Control signal 4 - 20 mA
- 24 V DC

Communication Products

Different communication protocols for different needs

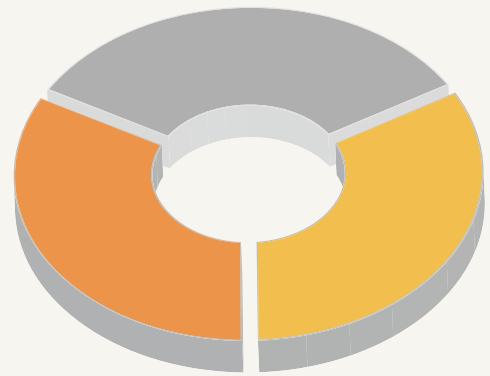
Our automation loop can be managed with various communication technologies and can therefore be seamlessly integrated into existing plant management systems. We offer analogue and digital communication technologies which support on / off or continuous control loops. Benefits are less wiring, faster installations and more efficient diagnostic and parameterization capabilities.



Communication

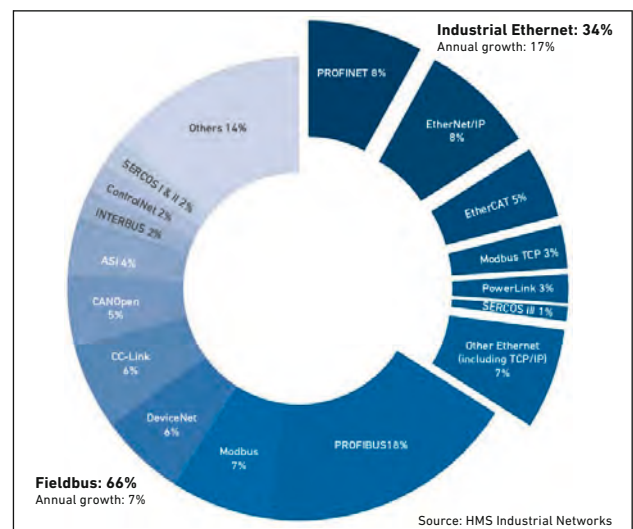
Communication products

Communication in industry

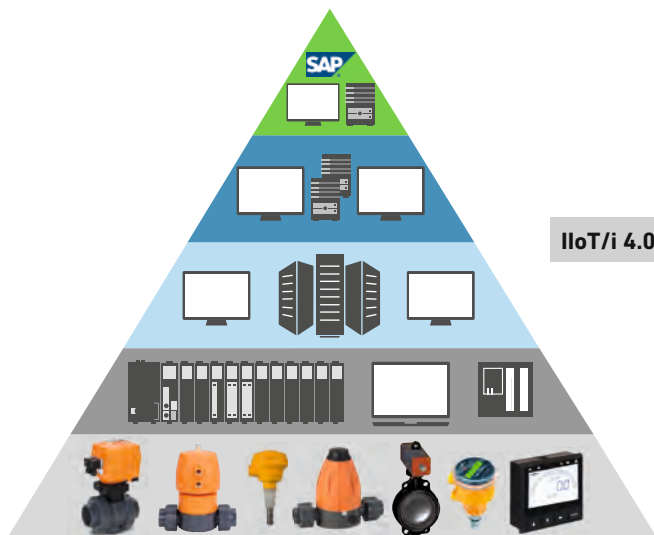


Digital communications with instruments, sensors, and valves is a growing necessity in many applications. The ability to digitally control and gather information from remote devices offers increased flexibility. Internet of Things (IoT), Industrial Internet of Things (IIoT), and Industry 4.0 (i 4.0) are movements in technology that connect individual sensors and actuators to information networks allowing automation and enterprise systems unparalleled access to real time data and information. Already today digital communication is used via different field bus protocols. GF is providing options for Profibus, HART and AS-interface. Converters can be used to transition from one protocol to the other. For the bus communication split please refer to the chart. Very often also standard analogue or digital signals are connected to PLCs to make them accessible for programming. In the future the different layers of system automation will disappear and merge into each other. GF is getting ready to support you in the best way today and in the future.

Fieldbus vs. industrial ethernet

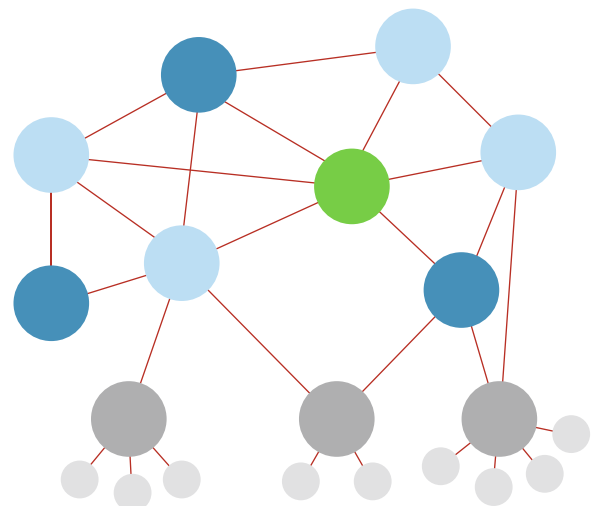


Today (Automation pyramid/hierarchic)



IIoT/i 4.0

Future (Cyber-Physical-Systems)



Communication



Profibus concentrator type 3-0486

- Connect GF actuated valves and sensors to profibus automation networks
- Supports six S³L sensors or relay modules plus a proportional controlled actuated valve
- Four of the (S³L) inputs support flow frequency devices for cost effective flow monitoring
- Two of the (S³L) inputs support 4 to 20 mA current loop inputs for connections to third party sensors



Profibus for valve cluster

- Modular version for 3/2-way and 5/2-way valves
- Connection module profibus interface
- 24 V DC
- Optional available module AS-Interface



Profibus (EA25-250)

- Connectable to Profibus DPV0 networks
- Using all the advantages of the standard full plastic GF electric actuator



Transmitter type 9900

- Optional module available



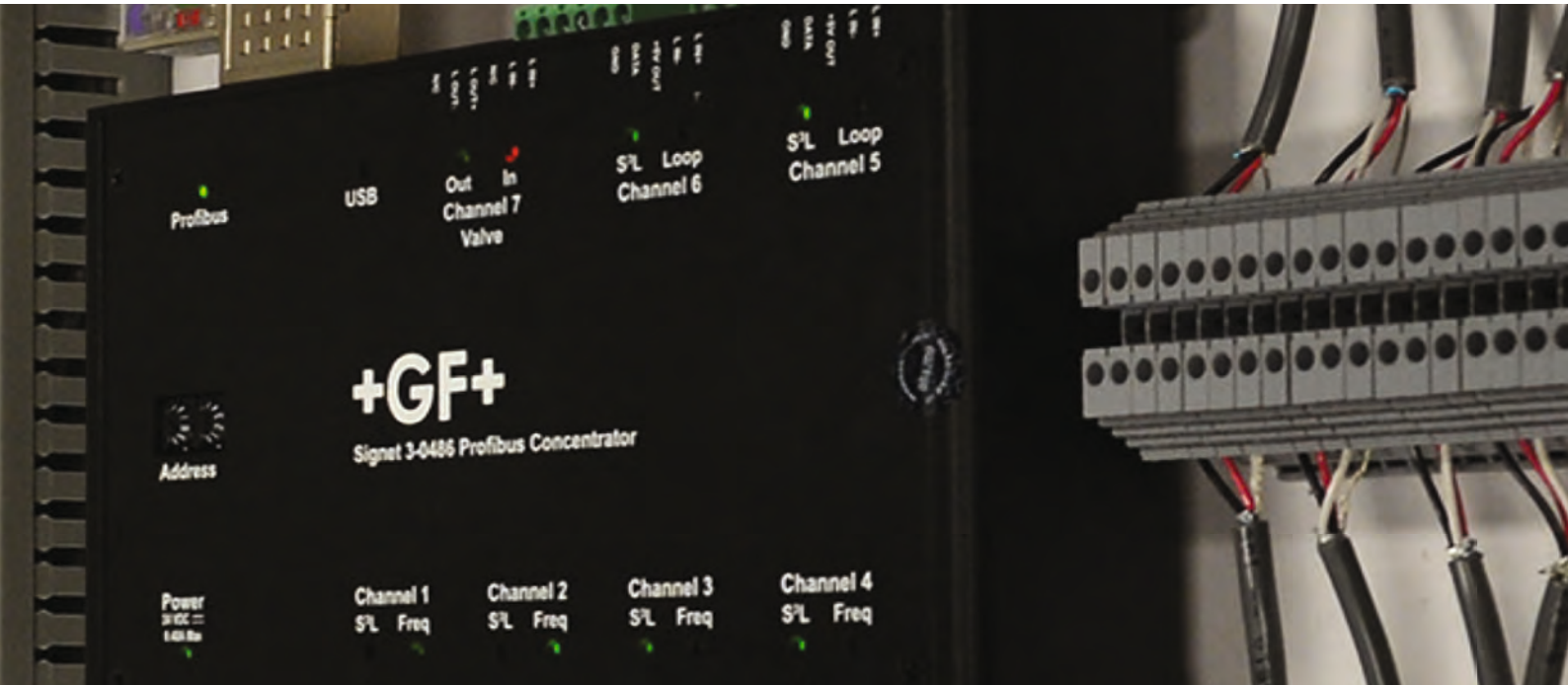
Non-contacting radar level transmitter type 2290

- Non-contacting
- Robust against most interfering factors such as fumes, light foaming or fluctuations of pressure or temperature
- Display and comprehensive configuration menu
- PP, PTFE or steel antenna enclosures



Ultrasonic level sensor type 2260/ ultrasonic level transmitter type 2270

- Non-contacting
- Robust against most interfering factors such as fumes, light foaming or fluctuations of pressure or temperature
- Display and comprehensive configuration menu
- PP, PTFE or steel antenna enclosures



AS-interface for pneumatic rotary actuators

- Pilot valve 5/2-ways
- Electric feedback integrated
- Full plastic housing
- Optical status indicator
- AS interface version 3.0



AS-interface for electric actuators

- Integrated control an electric
- Feedback
- For 24 V DC actuators
- For EA11 - EA42
- Manual override standard



AS-interface for manual valves with feedback

- With integrated feedback
- Ideal for ball valves
- Ideal for butterfly valves
- Ideal for diaphragm valves



AS-interface for pneumatic stroke actuators

- Pilot valve 3/2-Ways
- Compact design
- Full plastic housing
- Optical status indicator
- AS Interface Version 3.0



AS-interface for sensor with switch output

- With switching output
- For level switch
- For flow switch
- For pressure switch
- For temperature switch

Valves

The right valve
for your application

We offer one of the most comprehensive valve product ranges, which enables you to find the right match for your application.

Our valves are available in a wide selection of dimensions, materials, chemical resistances, standards, actuation, operation principles and pipe connections and are designed for long service life. The combination of the right valve selection and our high product quality leads to a favorable total cost of ownership.

Valves

Manual ball valves



**Ball valve
type 546**

- ABS, PVC-C, PVC-U, PP-H, PVDF
- EPDM, FKM, ball seat: PTFE, PVDF
- DN10 - DN100
- Up to PN16 = PVC-U, PVC-C, PVDF;
up to PN10 = PP-H, ABS
- Lockable lever, multifunctional module
- Linear version



**Linear ball valve
type 546**

- PVC-U, PVC-C, ABS, PP-H, PVDF
- DN15 - DN50
- Lockable lever
- Multifunctional module



**3-Way ball valve
type 543**

- ABS, PVC-C, PVC-U, PP-H, PVDF
- EPDM, FKM, ball seat: PTFE, PVDF
- DN10 - DN50
- Up to PN10
- Lockable Lever, multifunctional module



**Ball valve
type 375**

- PVC-U, PVC-C
- EPDM, FKM, ball seat: PTFE
- DN10-DN100
- PN16
- Not actuated



**Metering ball valve
type 523**

- PVC-U, PP-H, PVDF
- EPDM, FKM, Ball Seat: PTFE
- DN10 - DN15
- Up to PN16

Manual Diaphragm valves



**Diaphragm Valve
type 514**

- PVC-U, PVC-C, ABS, PP-H, PVDF,
PVDF-HP
- EPDM, PTFE/EPDM, FKM, PTFE/FKM
- DN15 - DN50
- Up to PN16
- Lockable handwheel
- Electrical feedback module



**Diaphragm valve
type 515**

- PVC-U, PVC-C, ABS, PP-H, PP-N,
PVDF, PVDF-HP
- EPDM, PTFE/EPDM, FKM, PTFE/FKM
- DN15 - DN50
- Up to PN16
- Lockable handwheel
- Electrical feedback module



**Diaphragm valve
type 517 (317)**

- PVC-U, PVC-C, PP-H, PVDF, PVDF-HP
- EPDM, PTFE/EPDM, FKM, PTFE/FKM
- DN15 - DN50 (type 317: DN65 - DN150)
- Up to PN16
- Lockable handwheel
- Electrical feedback module



**Diaphragm valve
type 519**

- PP-H, PP-N, PVDF-HP
- EPDM, PTFE/EPDM, PTFE/FKM
- DN20 - DN20 : d110 - d63
- Up to PN16
- Lockable handwheel
- Electrical feedback module

Valves

Manual butterfly valves



Butterfly valve manual type 567

- ABS, PVC-C, PVC-U, PP-H, PVDF
- Sealings: EPDM, FKM, PTFE/FKM
- DN50 - DN600
- PN10
- Lever, Gear, 230 V o. 24 V, FC/FO/DA
- Optional: Integrated position indicator in valve body



Metal butterfly valve type 038/039

- 038: GGG, LUG; 039: GGG Wafer
- Sealings: EPDM, FKM
- 038: DN50 - DN300;
- 039: DN50 - DN1200
- PN10/PN16
- Lever, gear, 230 V o. 24 V, FC/FO/DA



Butterfly valve manual type 578

- ABS, PVC-C, PVC-U, PP-H, PVDF
- Sealings: EPDM, FKM, PTFE/FKM
- DN50 - DN300
- PN10
- Lever, gear, 230 V o. 24 V, FC/FO/DA
- Optional: Integrated position indicator in valve body

Accessories



Multifunctional modules

- Multi functional module
- Accessory for ball valves 546/543
- Limit switch AgNi, Au, Namur, NPN, PNP
- Interface for electric pneumatic actuators



Electrical feedback module

- Electrical feedback module
- Accessory for (manual) diaphragm valves 514 - 519
- Limit switch AgNi or Au
- Self adjusting mechanism



Integrated position indicator

- Integrated position indicator
- Accessory for butterfly valves 567/578
- Limit switch AgNi, AU, Namur, NPN, PNP



Labelling ball valve

- Labelling system for ball valve 546/543/523

Process control valves



Check valve type 561/562

- ABS, PVC-C, PVC-U, PP-H, PVDF
- EPDM, FKM
- DN10 - DN100
- Up to PN16
- Type 562 with spring



**Ventilating valve/
Ventilating and bleed valve type 591/595**

- ABS, PVC-C, PVC-U, PP-H, PVDF
- EPDM, FKM
- DN10 - DN100
- Up to PN16
- Type 595 with spring
- Float PP-H / PVDF



Process control valves



**Angle seat check valve
type 303/304**

- PVC-U, ABS
- EPDM, FKM
- DN10 - DN80
- PN10



**Wafer check valve
type 369**

- PVC-U, PP-H, PVDF
- EPDM, FKM
- DN32 - DN300, 1¼ - 12"
- PN10



**Line strainer
type 305/306**

- PVC-U, PVC-C, ABS, PP-H, PVC-U transparent
- EPDM, FKM
- DN15 - DN50, PVC-U up to DN80
- PN10
- Screen: stainless-steel and PVC-U



**Throttle valve
type V251**

- PVC-U, PP-H, PVDF
- EPDM, FKM
- DN10 - DN50
- PN10



**Water jet suction pump (eductor)
type P20**

- PVC-U, PP-H, PVDF
- EPDM, FKM
- DN10 - DN80
- PN10



**Float valve
type V140**

- PVC, PP
- EPDM, FKM
- DN10 - DN80
- PN6
- Vertical mounting position



**Gauge guard
type Z500/501**

- True plastic design (no metal screws!)
- PVC-U, PP-H, PVDF
- EPDM, EPDM-PTFE-coated
- DN20 or DN 25
- PN10
- With or without pressure gauge

Product Configurator

Create your own actuator

Electric Actuator

- T01 EA 11 24V with Cable Plug
- T02 EA 11 100-230V with Cable Plug
- T07 EA 25 24V with Cable Plug
- T08 EA 25 100-230V with Cable Plug
- T09 EA 120 24V with Cable Plug
- T10 EA 120 100-230V with Cable Plug
- T11 EA 250 24V with Cable Plug
- T12 EA 250 100-230V with Cable Plug



Angle (Open/ Close)

- W45 45°
- W90 90°
- W180 180°

Middle Position

- W17 No
- W18 Yes

Colour Assignment Feedback

- W20 Open = rot
- W21 Open = grün

Position Feedback

- W23 Open/Close
- W24 Open/Close/Middle
- W25 Middle

Wiring Feedback

- W26 NC
- W28 NO

Heating Threshold

- W29 5°
- ... [5°steps]
- W37 45°

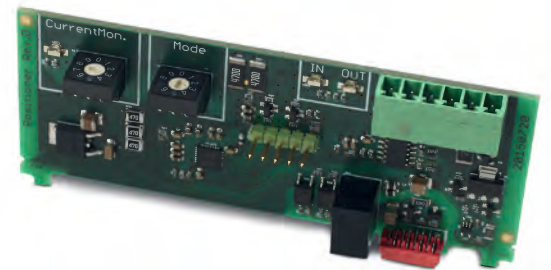


Failsafe Return unit

- W39 Integrated (Battery powered)
- W40 External (no Battery - 24V needed)

Accessory

- W42 Positioner
- W43 Monitoring
- W44 Profibus



Setting Positioner

- W46 BCD = 0
- ...
- W55 BCD = 9

Setting Motor Current

- W56 BCD = 0
- ...
- W65 BCD = 9

Setting Cycle Time

- W66 BCD = 0
- ...
- W75 BCD = 9



Setting Cycle Time monitoring

- W76 BCD = 0
- ...
- W85 BCD = 9

Setting Cycle Counter

- W86 BCD = 0
- ...
- W96 BCD = 9



T08 W90 W17 W20 W23 W26 W29 W39 W42 W 46 W65 - - - =

Actuated valves

Ball valves electric



SYGEF Standard
Ball valve type 181 100-230V
With manual emergency override
With fusion sockets metric

Model:

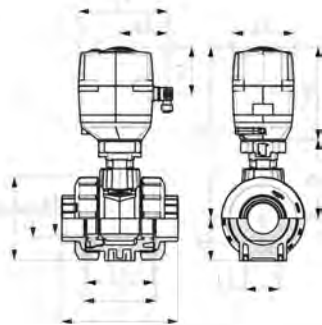
- Material: PVDF
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Integrated stainless steel mounting inserts

Option:

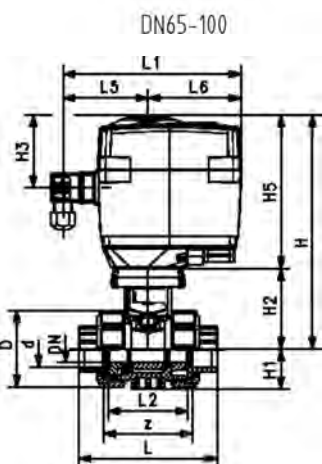
- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board



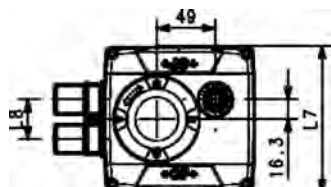
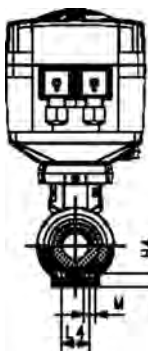
d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	EA	FKM Code	Weight (kg)
16	10	10	70	EA25	199 181 012	2.100
20	15	10	185	EA25	199 181 013	2.100
25	20	10	350	EA25	199 181 014	2.200
32	25	10	700	EA25	199 181 015	2.300
40	32	10	1000	EA25	199 181 016	2.600
50	40	10	1600	EA25	199 181 017	3.000
63	50	10	3100	EA25	199 181 018	3.800
75	65	10	5000	EA45	199 181 019	8.800
90	80	10	7000	EA120	199 181 020	11.900
110	100	10	11000	EA120	199 181 021	17.500



d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	M
16	50	227	27	60	94	12	167	93	180	56	25	97	83	122	M6
20	50	227	27	60	94	12	167	95	180	56	25	97	83	122	M6
25	58	231	30	64	94	12	167	108	180	65	25	97	83	122	M6
32	68	237	36	70	94	12	167	118	180	71	25	97	83	122	M6
40	84	243	44	76	94	15	167	136	180	85	45	97	83	122	M8
50	97	249	51	82	94	15	167	147	180	89	45	97	83	122	M8
63	124	264	64	97	94	15	167	168	180	101	45	97	83	122	M8
75	166	323	85	156	94	15	167	233	180	136	70	98	82	122	M8
90	200	335	105	168	94	15	167	254	180	141	70	98	82	122	M8
110	238	342	123	175	94	22	167	299	180	164	120	98	82	122	M12



d (mm)	z (mm)
16	67
20	67
25	76
32	82
40	96
50	101
63	114
75	171
90	184
110	217



SYGEF Standard
Ball valve type 181 100-230V
With manual emergency override
With butt fusion spigots IR-Plus metric

Model:

- Material: PVDF
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Integrated stainless steel mounting inserts

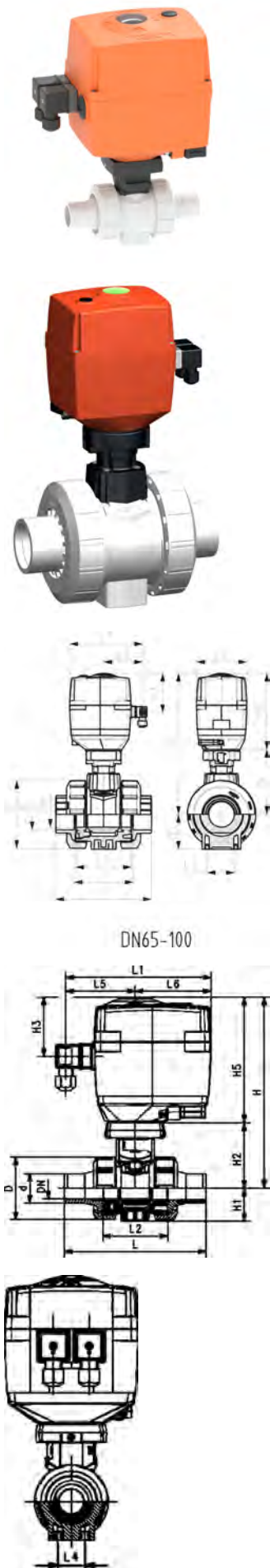
Option:

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	EA	FKM Code	Weight (kg)
20	15	10	185	EA25	199 181 113	2.100
25	20	10	350	EA25	199 181 114	2.200
32	25	10	700	EA25	199 181 115	2.300
40	32	10	1000	EA25	199 181 116	2.600
50	40	10	1600	EA25	199 181 117	3.000
63	50	10	3100	EA25	199 181 118	3.800
75	65	10	5000	EA45	199 181 119	9.100
90	80	10	7000	EA120	199 181 120	12.200
110	100	10	11000	EA120	199 181 121	17.500

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	M
20	50	227	27	60	94	12	167	120	180	56	25	97	83	122	M6
25	58	231	30	64	94	12	167	139	180	65	25	97	83	122	M6
32	68	237	36	70	94	12	167	150	180	71	25	97	83	122	M6
40	84	243	44	76	94	12	167	170	180	85	45	97	83	122	M6
50	97	249	51	82	94	15	167	189	180	89	45	97	83	122	M8
63	124	264	64	97	94	15	167	219	108	101	45	97	83	122	M8
75	166	323	85	156	94	15	190		180	136	70	98	82	122	M8
90	200	335	105	168	94	15	190		180	141	70	98	82	122	M8
110	238	342	123	175	94	22	190		180	164	120	98	82	122	M12

d (mm)	e (mm)
20	1.9
25	1.9
32	2.4
40	2.4
50	3.0
63	3.0
75	3.6
90	4.3
110	5.3



Ball valves pneumatic



DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
With manual override
With fusion Sockets metric

Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

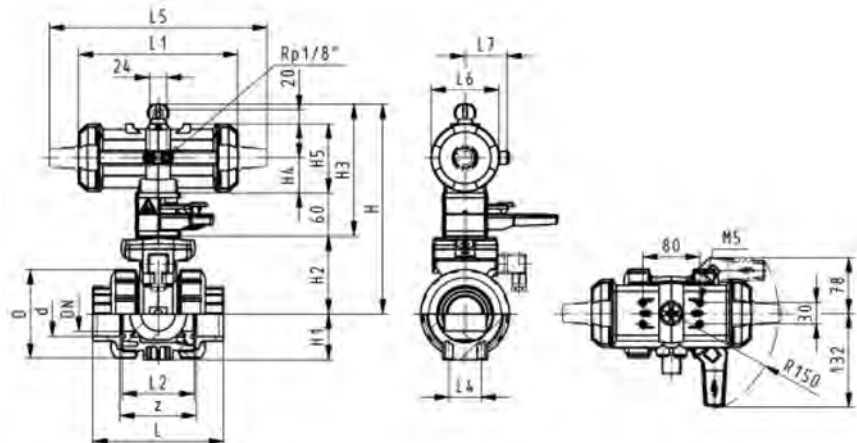
Option:

- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
16	10	10	70	199 232 012	1	1.500
20	15	10	185	199 232 013	1	1.500
25	20	10	350	199 232 014	1	1.600
32	25	10	700	199 232 015	1	1.700
40	32	10	1000	199 232 016	1	2.800
50	40	10	1600	199 232 017	1	3.100
63	50	10	3100	199 232 018	1	4.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
16	50	230	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	230	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	239	30	71	168	40	77	109	194	65	25	261	76	48	77
32	68	239	36	71	168	40	77	119	194	71	25	261	76	48	83
40	84	271	44	84	187	51	99	135	224	85	45	305	95	59	99
50	97	271	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	293	64	106	187	51	99	168	224	101	45	305	95	59	117

d (mm)	closest inch (inch)
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FO (Fail safe to open)
With manual override
With threaded sockets NPT

Model:

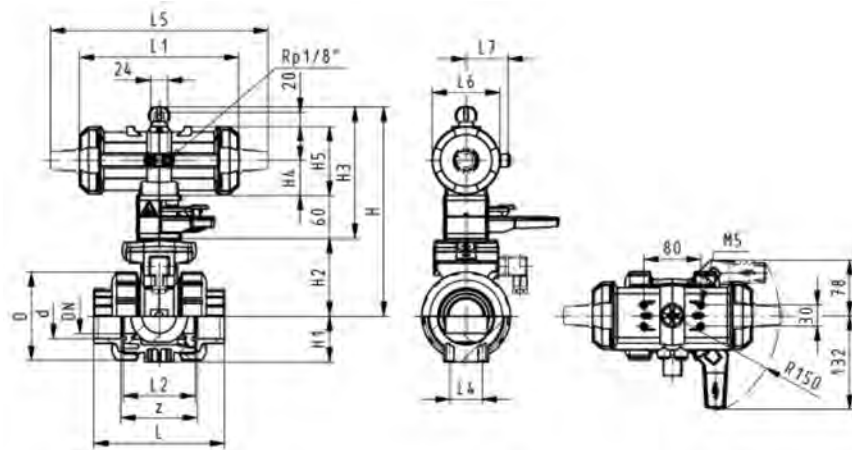
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve

Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
3/8	10	10	70	199 232 532	1	1.500
1/2	15	10	185	199 232 533	1	1.500
3/4	20	10	350	199 232 534	1	1.600
1	25	10	700	199 232 535	1	1.700
1 1/4	32	10	1000	199 232 536	1	2.800
1 1/2	40	10	1600	199 232 537	1	3.100
2	50	10	3100	199 232 538	1	4.000

Size (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
3/8	50	159	27	62	168	40	77	96	194	56	25	261	76	48	69
1/2	50	159	27	62	168	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	168	40	77	127	194	71	25	261	76	48	83
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	101
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	135





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function DA (Double acting)
With manual override
With threaded sockets NPT

Model:

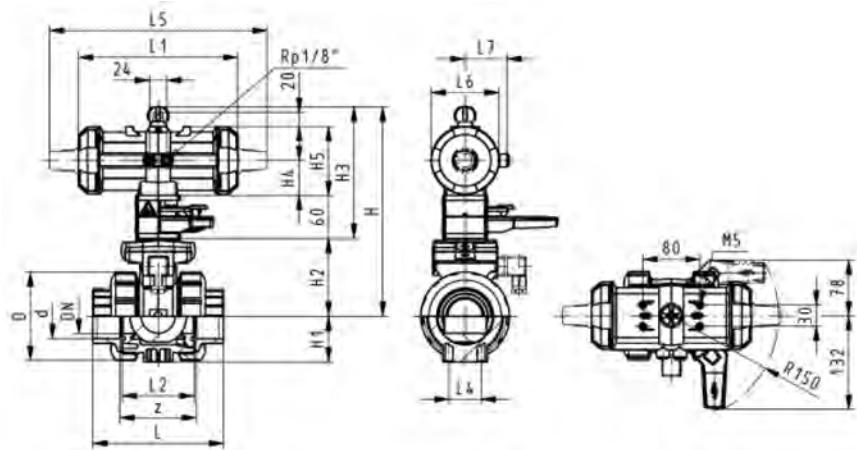
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve

Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	Weight (kg)
3/8	10	10	70	199 232 552	1.500
1/2	15	10	185	199 232 553	1.500
3/4	20	10	350	199 232 554	1.600
1	25	10	700	199 232 555	1.700
1 1/4	32	10	1000	199 232 556	2.800
1 1/2	40	10	1600	199 232 557	3.100
2	50	10	3100	199 232 558	4.000

Size (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
3/8	50	230	27	62	168	40	77	96	194	56	25	261	76	48	69
1/2	50	230	27	62	168	40	77	99	194	56	25	261	76	48	64
3/4	58	239	30	71	168	40	77	111	194	65	25	261	76	48	76
1	68	239	36	71	168	40	77	127	194	71	25	261	76	48	83
1 1/4	84	271	44	84	187	51	99	146	224	85	45	305	95	59	101
1 1/2	97	271	51	84	187	51	99	157	224	89	45	305	95	59	111
2	124	293	64	106	187	51	99	183	224	101	45	305	95	59	135





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function DA (Double acting)
Without manual override
With threaded sockets NPT

Model:

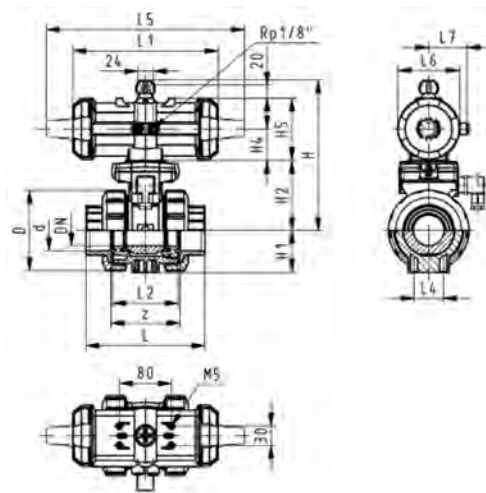
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve

Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
3/8	10	10	70	199 232 612	1	1.500
1/2	15	10	185	199 232 613	1	1.500
3/4	20	10	350	199 232 614	1	1.600
1	25	10	700	199 232 615	1	1.700
1 1/4	32	10	1000	199 232 616	1	2.800
1 1/2	40	10	1600	199 232 617	1	3.100
2	50	10	3100	199 232 618	1	4.000

Size (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
3/8	50	159	27	62	40	77	96	194	56	25	261	76	48	69
1/2	50	159	27	62	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	40	77	127	194	71	25	261	76	48	83
1 1/4	84	202	44	84	51	99	146	224	85	45	305	95	59	101
1 1/2	97	202	51	84	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	51	99	183	224	101	45	305	95	59	135





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function DA (Double acting)
Without manual override
With fixed flanges PVDF serrated metric

Model:

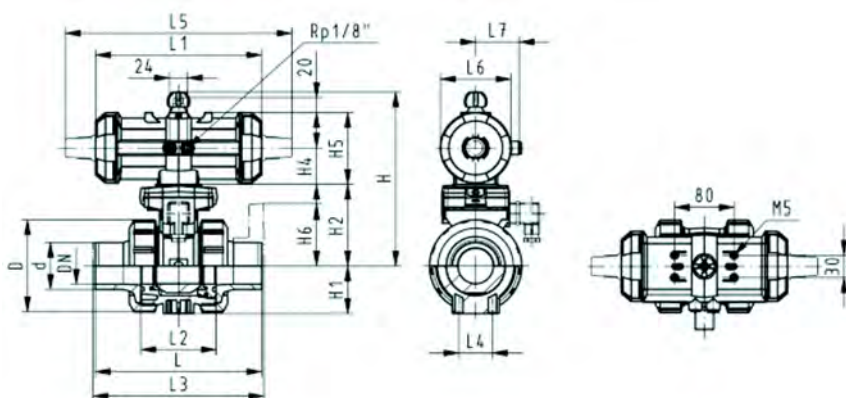
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

Option:

- Individual configuration of the valve

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	½	10	185	199 232 103	1	1.400
25	20	¾	10	350	199 232 104	1	1.600
32	25	1	10	700	199 232 105	1	1.800
40	32	1 ¼	10	1000	199 232 106	1	3.100
50	40	1 ½	10	1600	199 232 107	1	3.600
63	50	2	10	3100	199 232 108	1	4.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
20	50	159	27	62	40	77	48	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	224	224	101	230	45	305	95	59





SYGEF Standard
Ball valve type 232
Function DA (Double acting)
Without manual override
With backing flanges PP-st metric

Model:

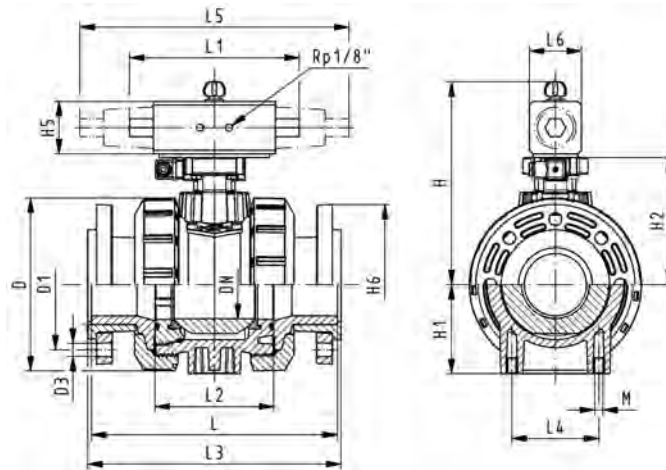
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

Option:

- Individual configuration of the valve

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
75	65	2 ½	10	5000	199 232 949	1	13.400
90	80	3	10	7000	199 232 950	1	18.200
110	100	4	10	11000	199 232 951	1	26.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L6 (mm)
75	166	257	85	156	66	93	280	144	136	290	70	60
90	200	274	105	168	70	100	296	152	141	310	70	65
110	238	273	123	175	78	110	336	169	164	350	120	72





SYGEF Standard
Ball valve type 232
Function DA (Double acting)
Without manual override
With backing flanges PP-st Inch ANSI

Model:

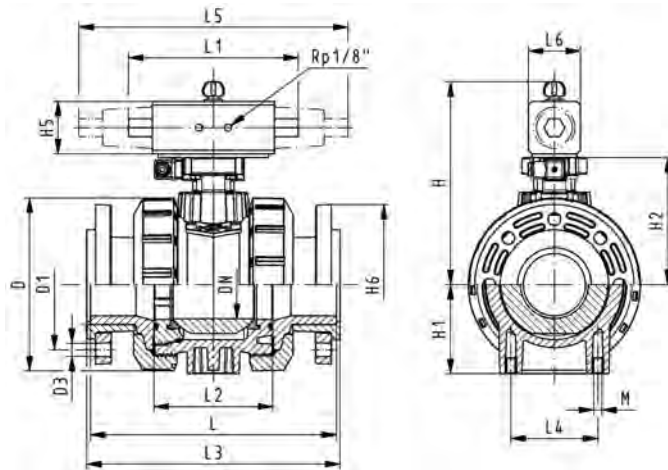
- Material: PVDF
- Control time 90° < 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

Option:

- Individual configuration of the valve

d	Size	DN	PN	kv-value	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code		(kg)
				(L/min)			
75	2 ½	65	10	5000	199 232 979	1	13.400
90	3	80	10	7000	199 232 980	1	18.200
110	4	100	10	11000	199 232 981	1	26.000

d	D	H	H1	H2	H5	H6	L	L1	L2	L3	L4	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
75	166	257	85	156	66	93	280	144	136	290	70	60
90	200	274	105	168	70	100	296	152	141	310	70	65
110	238	273	123	175	78	115	336	169	164	350	120	72





DN10/15 - 50



SYGEF Standard
Ball valve type 232
Function DA (Double acting)
Without manual override
With butt fusion spigots IR-Plus metric

Model:

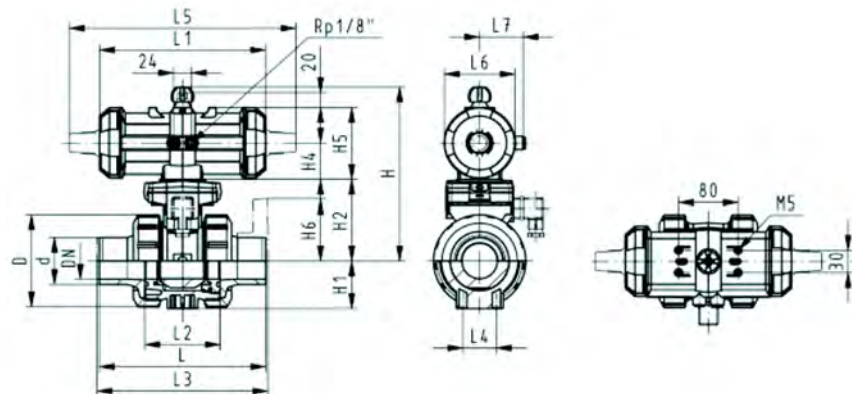
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	10	185	199 232 913	1	1.200
25	20	10	350	199 232 914	1	1.300
32	25	10	700	199 232 915	1	1.400
40	32	10	1000	199 232 916	1	2.500
50	40	10	1600	199 232 917	1	2.800
63	50	10	3100	199 232 918	1	3.700
75	65	10	5000	199 232 919	1	8.300
90	80	10	7000	199 232 920	1	11.900
110	100	10	11000	199 232 921	1	17.300

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	e (mm)
20	50	159	27	62	40	77	130	194	56	25	261	76	48	2
25	58	168	30	71	40	77	130	194	65	25	261	76	48	2
32	68	168	36	71	40	77	130	194	71	25	261	76	48	2
40	84	202	44	84	51	99	130	224	85	45	305	95	59	2
50	97	202	51	84	51	99	130	224	89	45	305	95	59	3
63	124	225	64	106	51	99	130	224	101	45	305	95	59	3
75	166	257	85	156		66	266	144	136	70		60		4
90	200	274	105	168		70	264	152	141	70		65		4
110	238	273	123	175		78	301	169	164	120		72		5





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function DA (Double acting)
Without manual override
With socket fusion spigots metric

Model:

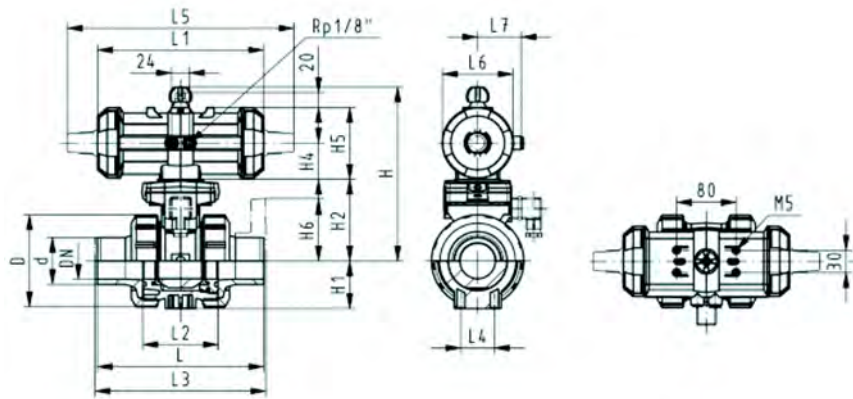
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
16	10	10	70	199 232 232	1	1.200
20	15	10	185	199 232 233	1	1.200
25	20	10	350	199 232 234	1	1.300
32	25	10	700	199 232 235	1	1.400
40	32	10	1000	199 232 236	1	2.500
50	40	10	1600	199 232 237	1	2.800
63	50	10	3100	199 232 238	1	3.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	closest inch (inch)
16	50	159	27	62	40	77	114	194	56	130	25	261	76	48	3/8
20	50	159	27	62	40	77	124	194	56	130	25	261	76	48	1/2
25	58	168	30	71	40	77	144	194	65	150	25	261	76	48	3/4
32	68	168	36	71	40	77	154	194	71	160	25	261	76	48	1
40	84	202	44	84	51	99	174	224	85	180	45	305	95	59	1 1/4
50	97	202	51	84	51	99	194	224	89	200	45	305	95	59	1 1/2
63	124	225	64	106	51	99	224	224	101	230	45	305	95	59	2





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function DA (Double acting)
Without manual override
With fusion sockets metric

Model:

- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

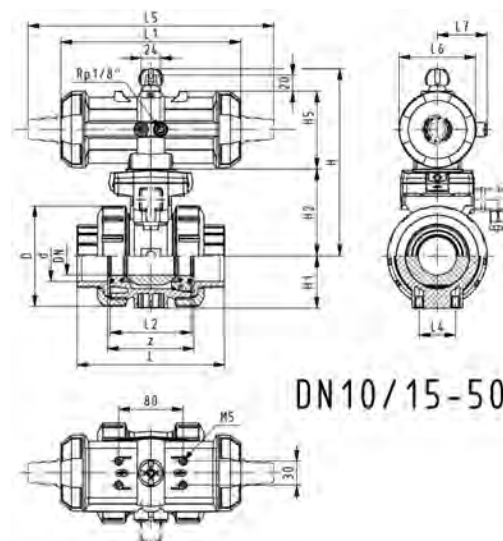
Option:

- Individual configuration of the valve

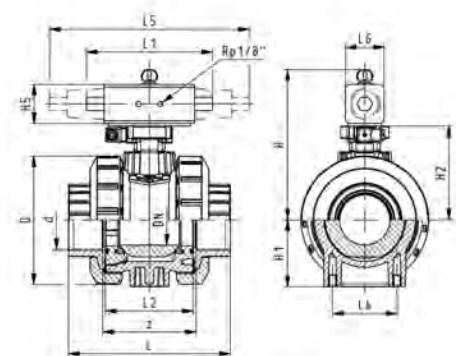


d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
16	10	10	70	199 232 212	1	1.200
20	15	10	185	199 232 213	1	1.200
25	20	10	350	199 232 214	1	1.300
32	25	10	700	199 232 215	1	1.096
40	32	10	1000	199 232 216	1	1.845
50	40	10	1600	199 232 217	1	2.800
63	50	10	3100	199 232 218	1	3.700
75	65	10	5000	199 232 219	1	8.000
90	80	10	7000	199 232 220	1	11.600
110	100	10	11000	199 232 221	1	17.100

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
16	50	159	27	62	40	77	93	194	56	25	261	76	48	67
20	50	159	27	62	40	77	95	194	56	25	261	76	48	66
25	58	168	30	71	40	77	109	194	65	25	261	76	48	77
32	68	168	36	71	40	77	119	194	71	25	261	76	48	83
40	84	202	44	84	51	99	135	224	85	45	305	95	59	99
50	97	202	51	84	51	99	147	224	89	45	305	95	59	105
63	124	225	64	106	51	99	168	224	101	45	305	95	59	117
75	166	257	85	156		66	233	144	136	70		60		167
90	200	274	105	168		70	254	152	141	70		65		180
110	238	273	123	175		78	301	169	164	120		72		215



DN10/15-50



DN65-100



DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FO (Fail safe to open)
Without manual override
With fixed flanges PVDF serrated metric

Model:

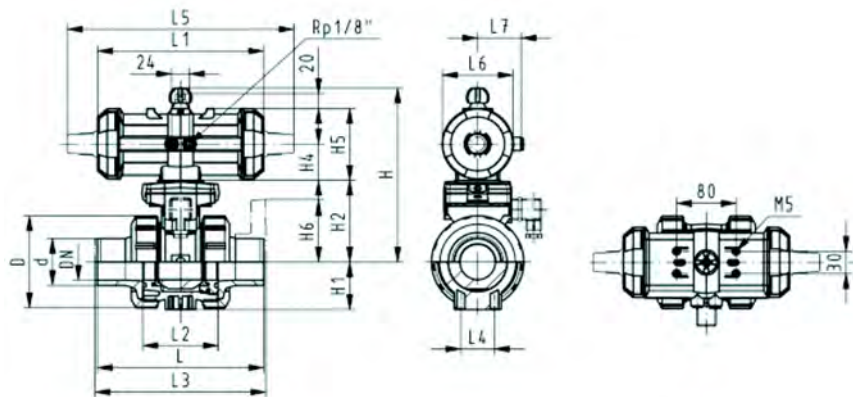
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

Option:

- Individual configuration of the valve

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	½	10	185	199 232 083	1	1.400
25	20	¾	10	350	199 232 084	1	1.600
32	25	1	10	700	199 232 085	1	1.800
40	32	1 ¼	10	1000	199 232 086	1	3.100
50	40	1 ½	10	1600	199 232 087	1	3.600
63	50	2	10	3100	199 232 088	1	4.697

D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
50	159	27	62	40	77	48	124	194	56	130	25	261	76	48
58	168	30	71	40	77	53	144	194	65	150	25	261	76	48
68	168	36	71	40	77	58	154	194	71	160	25	261	76	48
84	202	44	84	51	99	70	174	224	85	180	45	305	95	59
97	202	51	84	51	99	75	194	224	89	200	45	305	95	59
124	225	64	106	51	99	83	224	224	101	230	45	305	95	59





SYGEF Standard
Ball valve type 232
Function FO (Fail safe to open)
Without manual override
With backing flanges PP-st Inch ANSI

Model:

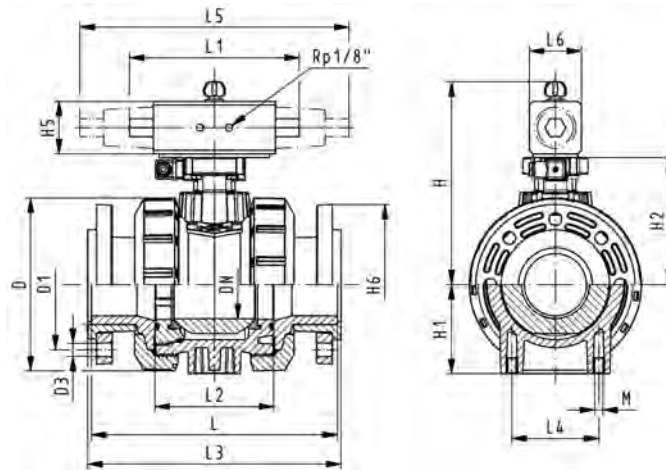
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

Option:

- Individual configuration of the valve

d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
75	2 ½	65	10	5000	199 232 969	1	14.500
90	3	80	10	7000	199 232 970	1	18.900
110	4	100	10	11000	199 232 971	1	27.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	H6 (mm)	L (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	115	336	164	350	120	369	80





SYGEF Standard
Ball valve type 232
Function FO (Fail safe to open)
Without manual override
With backing flanges PP-st metric

Model:

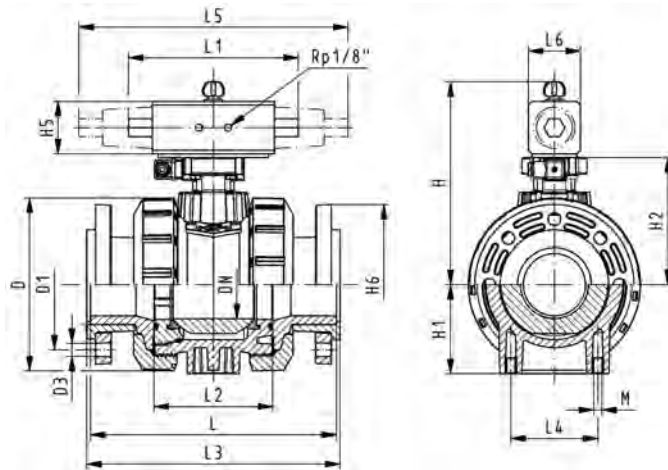
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

Option:

- Individual configuration of the valve

d	Size	DN	PN	kv-value	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code		(kg)
				(L/min)			
75	2 ½	65	10	5000	199 232 939	1	14.500
90	3	80	10	7000	199 232 940	1	18.900
110	4	100	10	11000	199 232 941	1	27.700

d	D	H	H1	H2	H5	H6	L	L2	L3	L4	L5	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	110	336	164	350	120	369	80





DN10/15 - 50



SYGEF Standard
Ball valve type 232
Function FO (Fail safe to open)
Without manual override
With butt fusion spigots IR-Plus metric

Model:

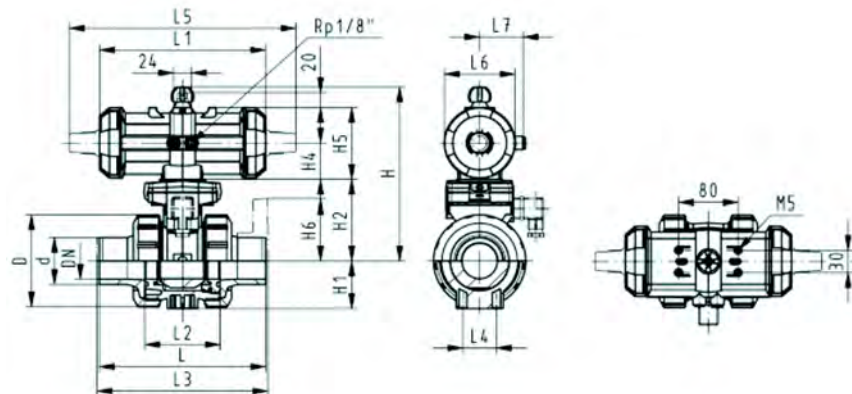
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	10	185	199 232 873	1	1.200
25	20	10	350	199 232 874	1	1.198
32	25	10	700	199 232 875	1	1.335
40	32	10	1000	199 232 876	1	2.351
50	40	10	1600	199 232 877	1	2.800
63	50	10	3100	199 232 878	1	3.568
75	65	10	5000	199 232 879	1	9.500
90	80	10	7000	199 232 880	1	12.600
110	100	10	11000	199 232 881	1	19.100

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	e (mm)
20	50	159	27	62	40	77	130	194	56	25	261	76	48	2
25	58	168	30	71	40	77	130	194	65	25	261	76	48	2
32	68	168	36	71	40	77	130	194	71	25	261	76	48	2
40	84	202	44	84	51	99	130	224	85	45	305	95	59	2
50	97	202	51	84	51	99	130	224	89	45	305	95	59	3
63	124	225	64	106	51	99	130	224	101	45	305	95	59	3
75	166	262	85	156		70	266	218	136	70	276	65		4
90	200	281	105	168		70	264	259	141	70	341	72		4
110	238	292	123	175		70	301	287	164	120	369	80		5





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FO (Fail safe to open)
Without manual override
With socket fusion spigots metric

Model:

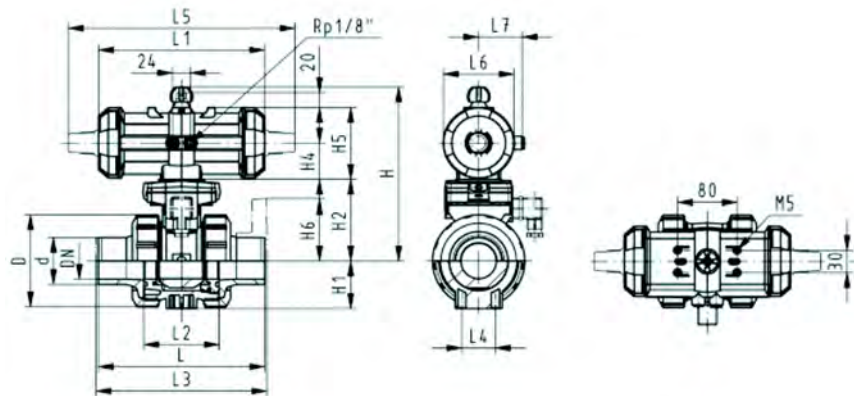
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
16	10	10	70	199 232 192	1	1.200
20	15	10	185	199 232 193	1	1.200
25	20	10	350	199 232 194	1	1.300
32	25	10	700	199 232 195	1	1.400
40	32	10	1000	199 232 196	1	2.500
50	40	10	1600	199 232 197	1	2.800
63	50	10	3100	199 232 198	1	3.603

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	closest inch (inch)
16	50	159	27	62	40	77	114	194	56	130	25	261	76	48	$\frac{3}{8}$
20	50	159	27	62	40	77	124	194	56	130	25	261	76	48	$\frac{1}{2}$
25	58	168	30	71	40	77	144	194	65	150	25	261	76	48	$\frac{3}{4}$
32	68	168	36	71	40	77	154	194	71	160	25	261	76	48	1
40	84	202	44	84	51	99	174	224	85	180	45	305	95	59	1 $\frac{1}{4}$
50	97	202	51	84	51	99	194	224	89	200	45	305	95	59	1 $\frac{1}{2}$
63	124	225	64	106	51	99	224	224	101	230	45	305	95	59	2





DN10/15 - 50



SYGEF Standard
Ball valve type 232
Function FO (Fail safe to open)
Without manual override
With fusion sockets metric

Model:

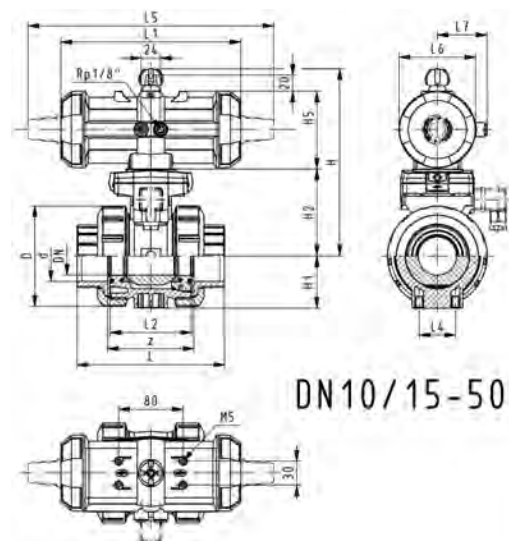
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

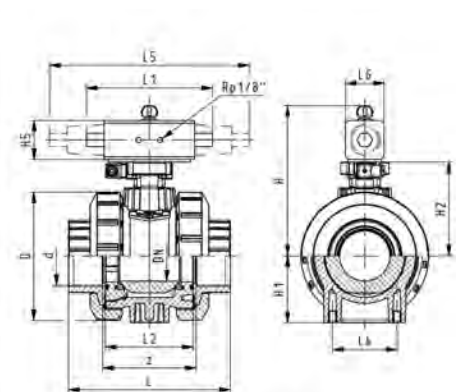
- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
16	10	10	70	199 232 172	1	1.200
20	15	10	185	199 232 173	1	1.200
25	20	10	350	199 232 174	1	1.300
32	25	10	700	199 232 175	1	1.400
40	32	10	1000	199 232 176	1	2.500
50	40	10	1600	199 232 177	1	2.800
63	50	10	3100	199 232 178	1	3.700
75	65	10	5000	199 232 179	1	9.200
90	80	10	7000	199 232 180	1	12.300
110	100	10	11000	199 232 181	1	18.900

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
16	50	159	27	62	40	77	93	194	56	25	261	76	48	67
20	50	159	27	62	40	77	95	194	56	25	261	76	48	66
25	58	168	30	71	40	77	109	194	65	25	261	76	48	77
32	68	168	36	71	40	77	119	194	71	25	261	76	48	83
40	84	202	44	84	51	99	135	224	85	45	305	95	59	99
50	97	202	51	84	51	99	147	224	89	45	305	95	59	105
63	124	225	64	106	51	99	168	224	101	45	305	95	59	117
75	166	262	85	156		70	233		136	70	276	65		167
90	200	281	105	168		78	254		141	70	341	72		180
110	238	292	123	175		86	301		164	120	369	80		215



DN10/15-50



DN65-100



DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
Without manual override
With fixed flanges PVDF serrated metric

Model:

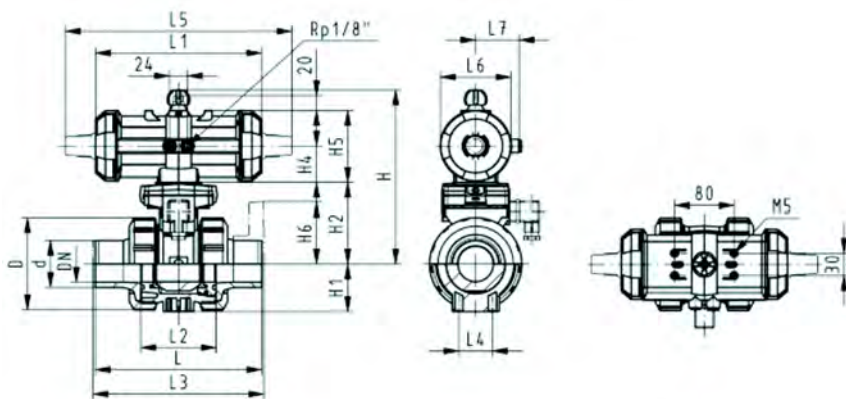
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

Option:

- Individual configuration of the valve

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	½	10	185	199 232 063	1	1.326
25	20	¾	10	350	199 232 064	1	1.600
32	25	1	10	700	199 232 065	1	1.804
40	32	1 ¼	10	1000	199 232 066	1	3.100
50	40	1 ½	10	1600	199 232 067	1	3.600
63	50	2	10	3100	199 232 068	1	4.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
20	50	159	27	62	40	77	48	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	224	224	101	230	45	305	95	59





SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
Without manual override
With backing flanges PP-st ASTM

Model:

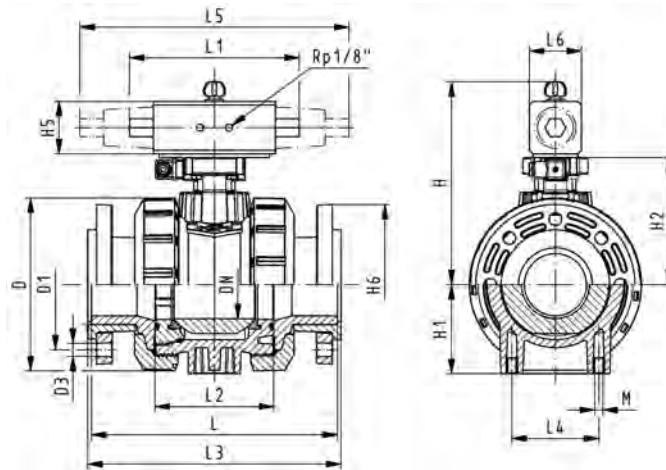
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

Option:

- Individual configuration of the valve

d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
75	2 ½	65	10	5000	199 232 959	1	14.500
90	3	80	10	7000	199 232 960	1	18.900
110	4	100	10	11000	199 232 961	1	27.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	H6 (mm)	L (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	115	336	164	350	120	369	80





SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
Without manual override
With backing flanges PP-st metric

Model:

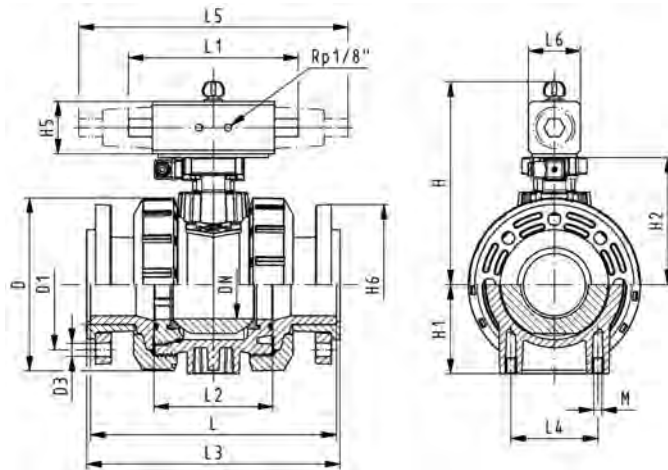
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

Option:

- Individual configuration of the valve

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
75	65	2 ½	10	5000	199 232 929	1	14.500
90	80	3	10	7000	199 232 930	1	18.900
110	100	4	10	11000	199 232 931	1	27.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	H6 (mm)	L (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	110	340	164	350	120	369	80





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
Without manual override
With socket fusion spigots metric

Model:

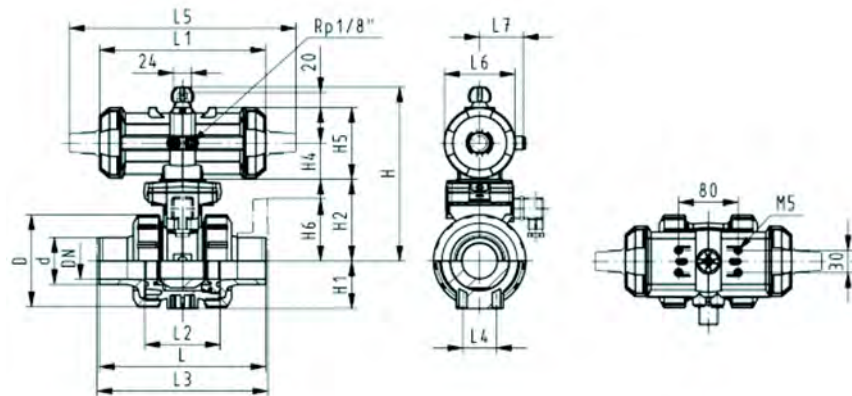
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
16	10	10	70	199 232 152	1	1.200
20	15	10	185	199 232 153	1	1.084
25	20	10	350	199 232 154	1	1.300
32	25	10	700	199 232 155	1	1.343
40	32	10	1000	199 232 156	1	2.500
50	40	10	1600	199 232 157	1	2.800
63	50	10	3100	199 232 158	1	3.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	closest inch (inch)
16	50	159	27	62	40	77	114	194	56	130	25	261	76	48	3/8
20	50	159	27	62	40	77	124	194	56	130	25	261	76	48	1/2
25	58	168	30	71	40	77	144	194	65	150	25	261	76	48	3/4
32	68	168	36	71	40	77	154	194	71	160	25	261	76	48	1
40	84	202	44	84	51	99	174	224	85	180	45	305	95	59	1 1/4
50	97	202	51	84	51	99	194	224	89	200	45	305	95	59	1 1/2
63	124	225	64	106	51	99	224	224	101	230	45	305	95	59	2





DN10/15 - 50



SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
Without manual override
With butt fusion spigots IR-Plus metric

Model:

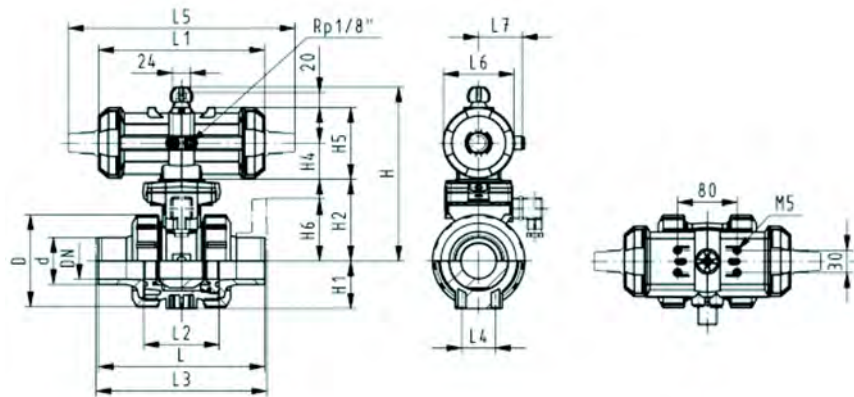
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	10	185	199 232 833	1	1.083
25	20	10	350	199 232 834	1	1.191
32	25	10	700	199 232 835	1	1.330
40	32	10	1000	199 232 836	1	2.350
50	40	10	1600	199 232 837	1	2.639
63	50	10	3100	199 232 838	1	4.219
75	65	10	5000	199 232 839	1	9.500
90	80	10	7000	199 232 840	1	12.600
110	100	10	11000	199 232 841	1	19.100

D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	e (mm)
50	159	27	62	40	77	130	194	56	25	261	76	48	2
58	168	30	71	40	77	130	194	65	25	261	76	48	2
68	168	36	71	40	77	130	194	71	25	261	76	48	2
84	202	44	84	51	99	130	224	85	45	305	95	59	2
97	202	51	84	51	99	130	224	89	45	305	95	59	3
124	225	64	106	51	99	130	224	101	45	305	95	59	3
166	262	85	156		70	266	270	136	70	276	65		4
200	281	105	168		78	264	270	141	70	341	72		4
238	292	123	175		86	301	320	164	120	369	80		5





DN10/15 - 50



SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
Without manual override
With fusion sockets metric

Model:

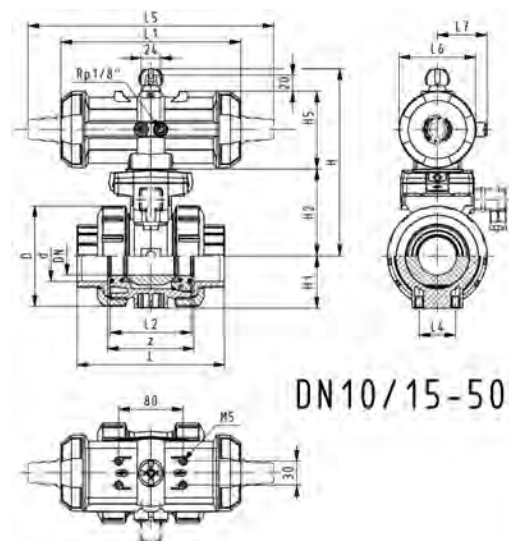
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

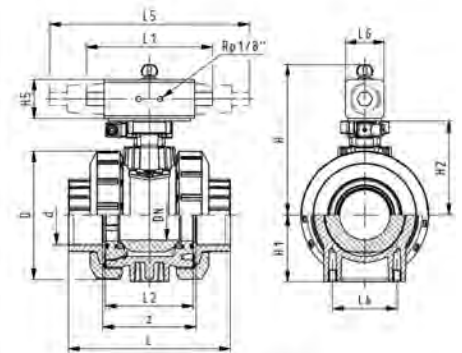
- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
16	10	10	70	199 232 132	1	1.200
20	15	10	185	199 232 133	1	1.079
25	20	10	350	199 232 134	1	1.300
32	25	10	700	199 232 135	1	1.322
40	32	10	1000	199 232 136	1	2.500
50	40	10	1600	199 232 137	1	3.216
63	50	10	3100	199 232 138	1	3.473
75	65	10	5000	199 232 139	1	9.200
90	80	10	7000	199 232 140	1	12.300
110	100	10	11000	199 232 141	1	18.900

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
16	50	159	27	62	40	77	93	194	56	25	261	76	48	67
20	50	159	27	62	40	77	95	194	56	25	261	76	48	66
25	58	168	30	71	40	77	109	194	65	25	261	76	48	77
32	68	168	36	71	40	77	119	194	71	25	261	76	48	83
40	84	202	44	84	51	99	135	224	85	45	305	95	59	99
50	97	202	51	84	51	99	147	224	89	45	305	95	59	105
63	124	225	64	106	51	99	168	224	101	45	305	95	59	117
75	166	262	85	156		70	233		136	70	276	65		167
90	200	281	105	168		78	254		141	70	341	72		180
110	238	292	123	175		86	301		164	120	369	80		215



DN10/15-50



DN65-100



DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function DA (Double acting)
With manual override
With fixed flanges PVDF serrated metric

Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

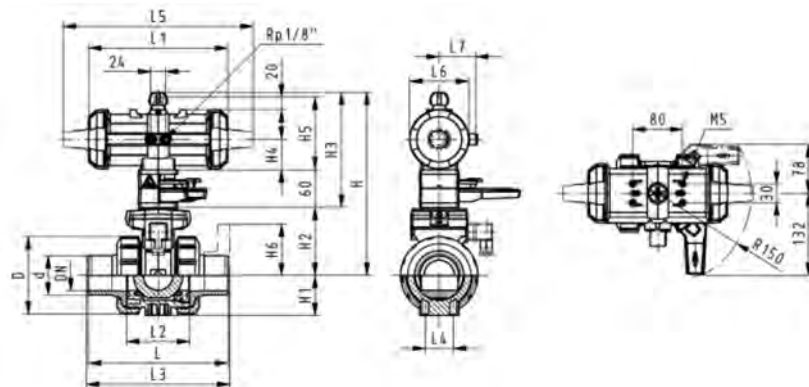
Option:

- Individual configuration of the valve

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	½	10	185	199 232 043	1	1.700
25	20	¾	10	350	199 232 044	1	1.900
32	25	1	10	700	199 232 045	1	2.100
40	32	1 ¼	10	1000	199 232 046	1	3.400
50	40	1 ½	10	1600	199 232 047	1	3.900
63	50	2	10	3100	199 232 048	1	5.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	230	27	62	168	40	77	48	124	194	56	130	25	261	76
25	58	239	30	71	168	40	77	53	144	194	65	150	25	261	76
32	68	239	36	71	168	40	77	58	154	194	71	160	25	261	76
40	84	271	44	84	187	51	99	70	174	224	85	180	45	305	95
50	97	271	51	84	187	51	99	75	194	224	89	200	45	305	95
63	124	293	64	106	187	51	99	83	224	224	101	230	45	305	95

d (mm)	L7 (mm)
20	48
25	48
32	48
40	59
50	59
63	59





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function DA (Double acting)
With manual override
With butt fusion spigots IR-Plus metric

Model:

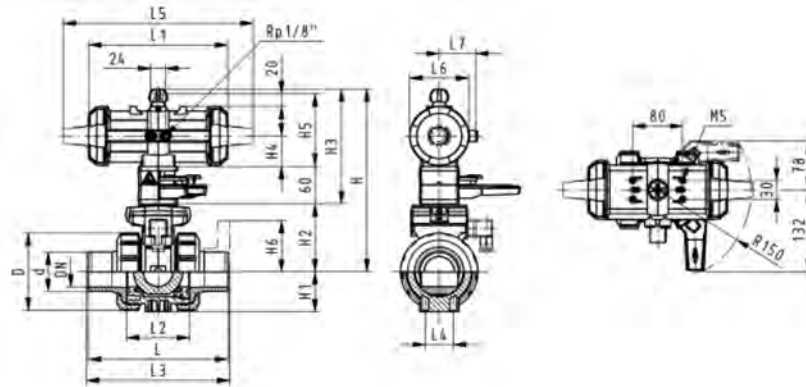
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
20	15	10	185	199 232 793	1	1.200
25	20	10	350	199 232 794	1	1.300
32	25	10	700	199 232 795	1	1.400
40	32	10	1000	199 232 796	1	2.500
50	40	10	1600	199 232 797	1	2.800
63	50	10	3100	199 232 798	1	3.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	closest inch (inch)
20	50	230	27	62	168	40	77	130	194	56	25	261	76	48	1/2
25	58	239	30	71	168	40	77	130	194	65	25	261	76	48	3/4
32	68	239	36	71	168	40	77	130	194	71	25	261	76	48	1
40	84	271	44	84	187	51	99	130	224	85	45	305	95	59	1 1/4
50	97	271	51	84	187	51	99	130	224	89	45	305	95	59	1 1/2
63	124	293	64	106	187	51	99	130	224	101	45	305	95	59	2





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function DA (Double acting)
With manual override
With socket fusion spigots metric

Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

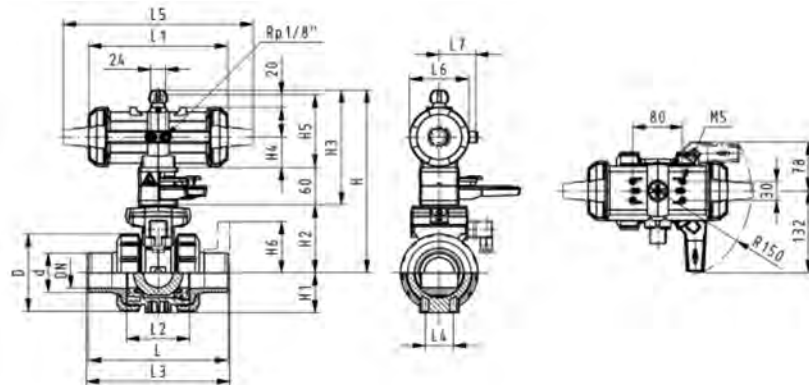
Option:

- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
16	10	10	70	199 232 112	1	1.500
20	15	10	185	199 232 113	1	1.500
25	20	10	350	199 232 114	1	1.600
32	25	10	700	199 232 115	1	1.700
40	32	10	1000	199 232 116	1	2.800
50	40	10	1600	199 232 117	1	3.100
63	50	10	3100	199 232 118	1	4.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
16	50	159	27	62	168	40	77	92	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	95	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	110	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	123	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	146	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	157	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	183	224	101	230	45	305	95	59

d (mm)	closest inch (inch)
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2

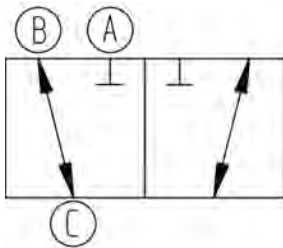
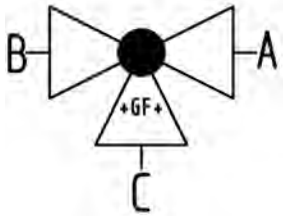




SYGEF Standard
3-Way ball valve type 287
Horizontal/L-port
Without manual override
With threaded sockets NPT

Model:

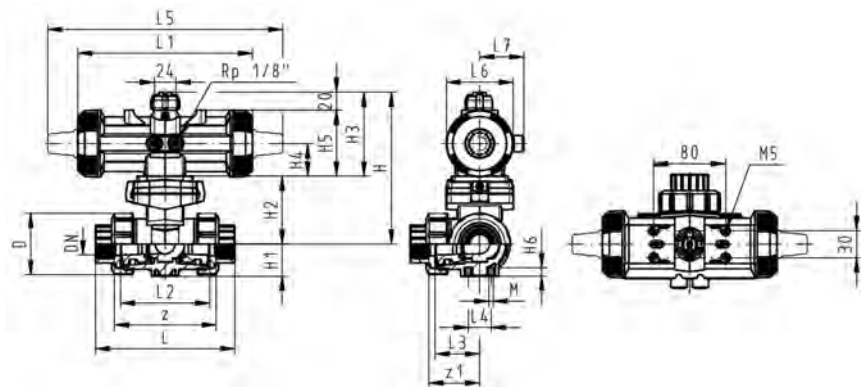
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

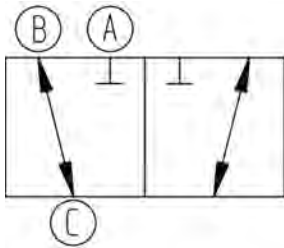
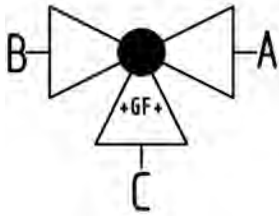


NPT (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
3/8	10	10	50	199 287 242	1	1.183
1/2	15	10	75	199 287 243	1	1.179
3/4	20	10	150	199 287 244	1	1.349
1	25	10	280	199 287 245	1	1.593
1 1/4	32	10	480	199 287 246	1	2.800
1 1/2	40	10	620	199 287 247	1	3.379
2	50	10	1230	199 287 248	1	5.109

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

NPT (inch)	L7 (mm)	M	z (mm)	z1 (mm)
3/8	48	6	86	43
1/2	48	6	80	40
3/4	48	6	95	48
1	48	6	110	55
1 1/4	59	8	132	66
1 1/2	59	8	157	79
2	59	8	210	105





SYGEF Standard
3-Way ball valve type 287
Horizontal/L-port
Without manual override
With butt fusion spigots IR-Plus metric

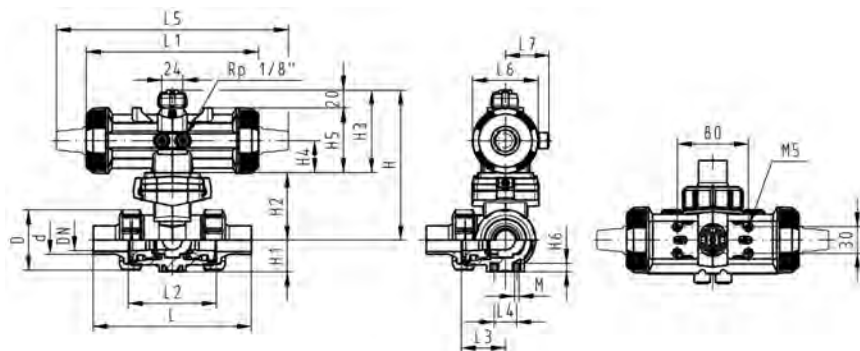
Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time $90^\circ <$ 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	10	75	199 287 053	1	1.666
25	20	10	150	199 287 054	1	1.369
32	25	10	280	199 287 055	1	1.623
40	32	10	480	199 287 056	1	2.710
50	40	10	620	199 287 057	1	3.294
63	50	10	1230	199 287 058	1	4.982

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M	closest inch (inch)
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2

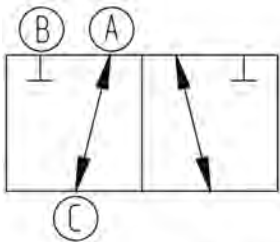
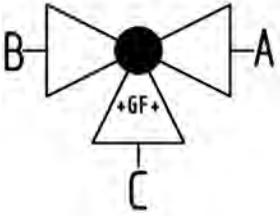




SYGEF Standard
3-Way ball valve type 287
Horizontal/L-port DA (Double acting)
Without manual override
With threaded sockets NPT

Model:

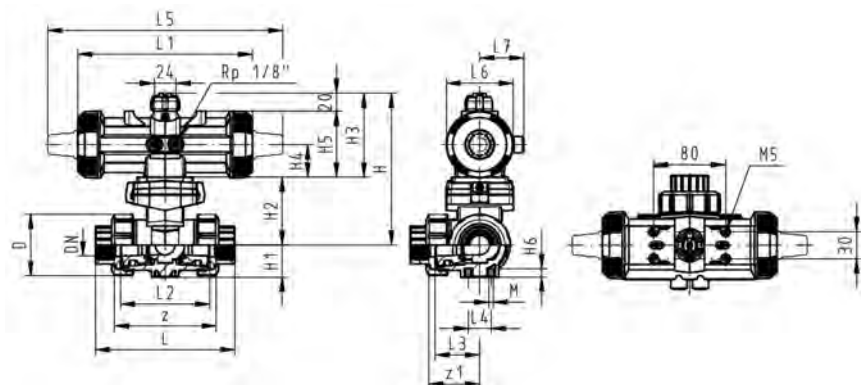
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

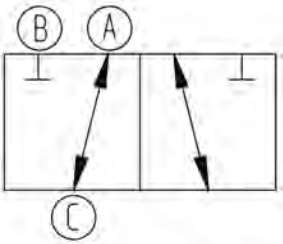
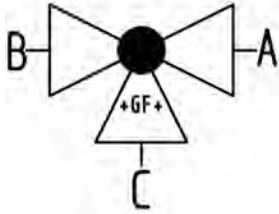


NPT (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
3/8	10	10	50	199 287 262	1	0.992
1/2	15	10	75	199 287 263	1	1.001
3/4	20	10	150	199 287 264	1	1.159
1	25	10	280	199 287 265	1	1.403
1 1/4	32	10	480	199 287 266	1	2.376
1 1/2	40	10	620	199 287 267	1	2.955
2	50	10	1230	199 287 268	1	4.685

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

NPT (inch)	L7 (mm)	M	z (mm)	z1 (mm)
3/8	48	6	86	43
1/2	48	6	80	40
3/4	48	6	95	48
1	48	6	110	55
1 1/4	59	8	132	66
1 1/2	59	8	157	79
2	59	8	210	105





SYGEF Standard
3-Way ball valve type 287
Horizontal/L-port DA (Double acting)
Without manual override
With butt fusion spigots IR-Plus metric

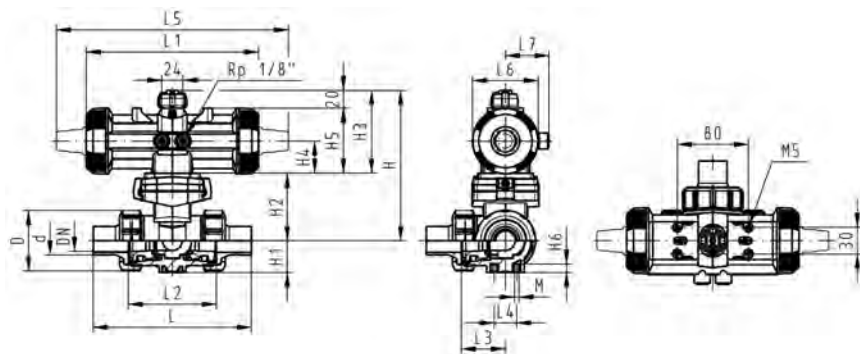
Model:

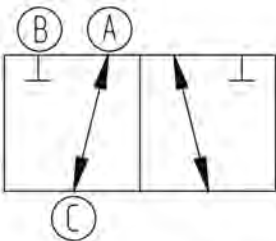
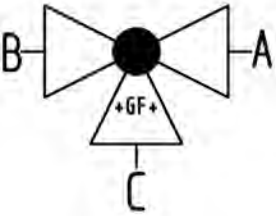
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	10	75	199 287 173	1	1.012
25	20	10	150	199 287 174	1	1.179
32	25	10	280	199 287 175	1	1.433
40	32	10	480	199 287 176	1	2.403
50	40	10	620	199 287 177	1	3.036
63	50	10	1230	199 287 178	1	4.847

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M	closest inch (inch)
20	48	6	½
25	48	6	¾
32	48	6	1
40	59	8	1 ¼
50	59	8	1 ½
63	59	8	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/L-port DA (Double acting)
Without manual override
With socket fusion spigots metric

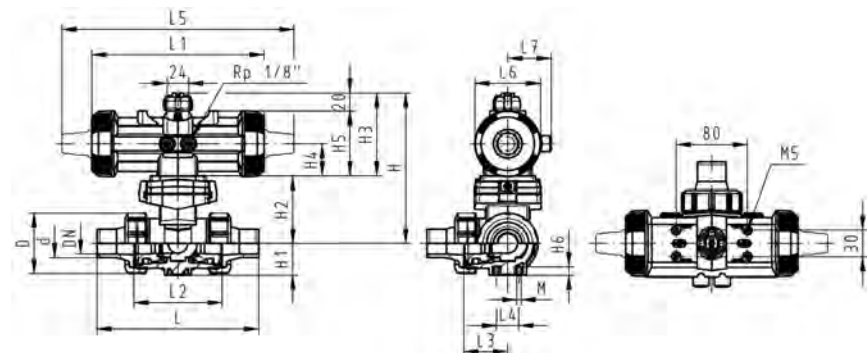
Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
16	10	10	50	199 287 132	1	1.001
20	15	10	75	199 287 133	1	1.012
25	20	10	150	199 287 134	1	1.179
32	25	10	280	199 287 135	1	1.433
40	32	10	480	199 287 136	1	2.403
50	40	10	620	199 287 137	1	3.036
63	50	10	1230	199 287 138	1	4.847

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	closest inch (inch)
16	48	6	3/8
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2

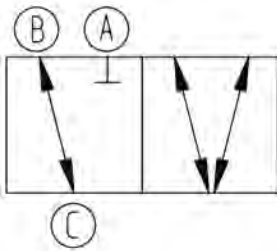
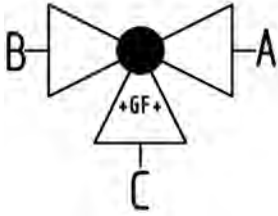




SYGEF Standard
3-Way ball valve type 287
Horizontal/T-port
Without manual override
With threaded sockets NPT

Model:

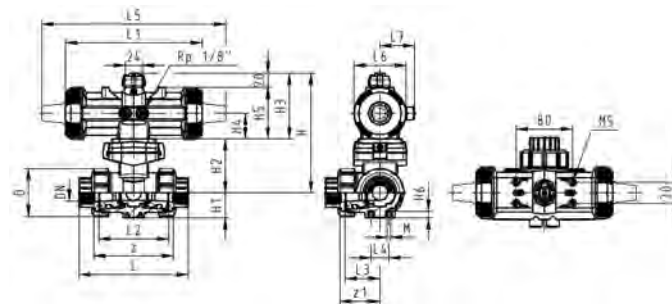
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time $90^\circ < 1-3$ s
- For easy installation and removal
- Integrated stainless steel mounting inserts



NPT (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
3/8	10	10	140	199 287 252	1	1.182
1/2	15	10	200	199 287 253	1	1.189
3/4	20	10	470	199 287 254	1	1.347
1	25	10	793	199 287 255	1	1.584
1 1/4	32	10	1290	199 287 256	1	2.786
1 1/2	40	10	1910	199 287 257	1	3.352
2	50	10	3100	199 287 258	1	5.052

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

NPT (inch)	L7 (mm)	M	z	z1 (mm)
3/8	48	6	86	43
1/2	48	6	80	40
3/4	48	6	95	48
1	48	6	110	55
1 1/4	59	8	132	66
1 1/2	59	8	157	79
2	59	8	210	105

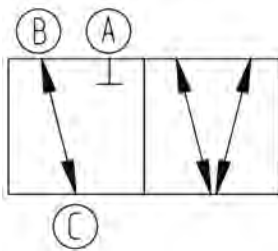
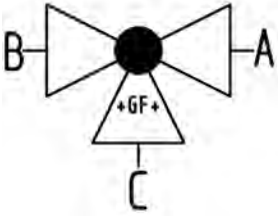




SYGEF Standard
3-Way ball valve type 287
Horizontal/T-port
Without manual override
With butt fusion spigots IR-Plus metric

Model:

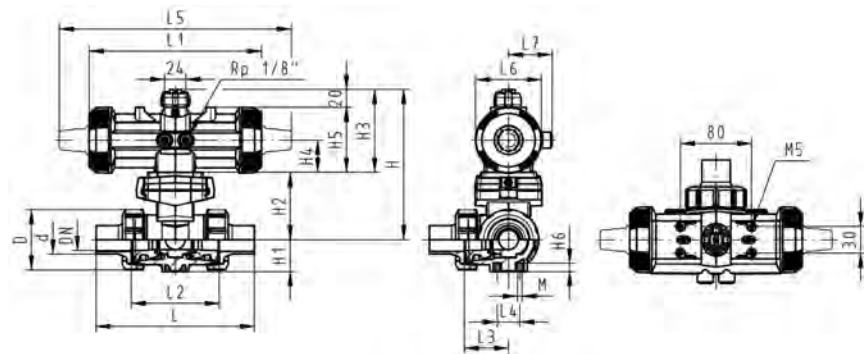
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

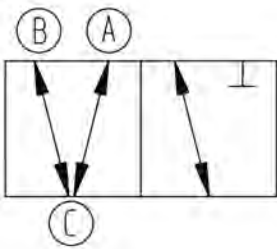
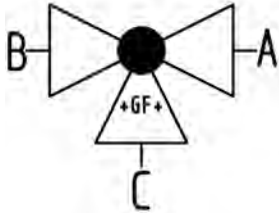


d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	10	200	199 287 073	1	1.201
25	20	10	470	199 287 074	1	1.366
32	25	10	793	199 287 075	1	1.615
40	32	10	1290	199 287 076	1	2.813
50	40	10	1910	199 287 077	1	3.433
63	50	10	3100	199 287 078	1	5.213

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M	closest inch (inch)
20	48	6	½
25	48	6	¾
32	48	6	1
40	59	8	1 ¼
50	59	8	1 ½
63	59	8	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/T-port DA (Double acting)
Without manual override
With threaded sockets NPT

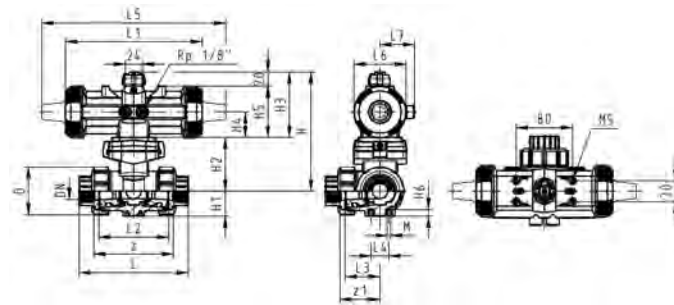
Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

NPT (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
3/8	10	10	140	199 287 272	1	0.991
1/2	15	10	200	199 287 273	1	0.999
3/4	20	10	470	199 287 274	1	1.157
1	25	10	793	199 287 275	1	1.394
1 1/4	32	10	1290	199 287 276	1	2.362
1 1/2	40	10	1910	199 287 277	1	2.928
2	50	10	3100	199 287 278	1	4.628

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

NPT (inch)	L7 (mm)	M	z (mm)	z1 (mm)
3/8	48	6	86	43
1/2	48	6	80	40
3/4	48	6	95	48
1	48	6	110	55
1 1/4	59	8	132	66
1 1/2	59	8	157	79
2	59	8	210	105

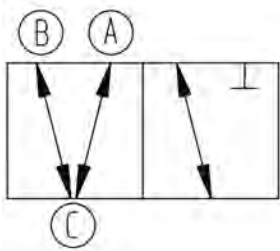
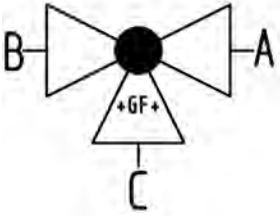




SYGEF Standard
3-Way ball valve type 287
Horizontal/T-port DA (Double acting)
Without manual override
With butt fusion spigots IR-Plus metric

Model:

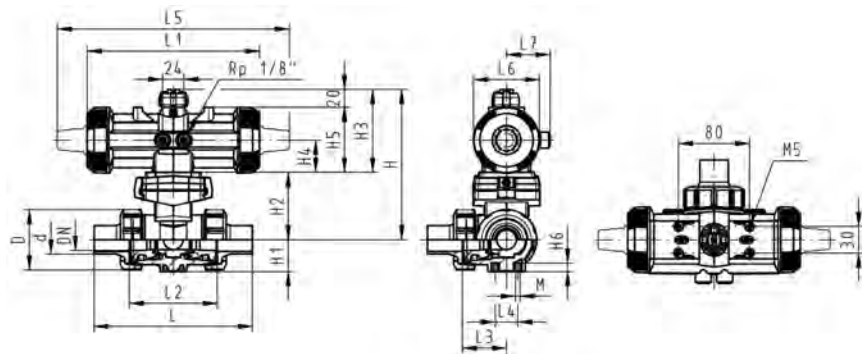
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

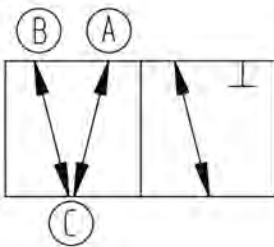
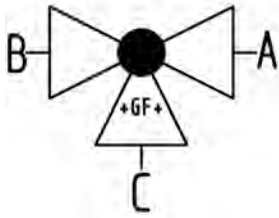


d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	10	140	199 287 193	1	1.011
25	20	10	200	199 287 194	1	1.176
32	25	10	470	199 287 195	1	1.425
40	32	10	793	199 287 196	1	2.389
50	40	10	1290	199 287 197	1	3.009
63	50	10	3100	199 287 198	1	4.789

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M	closest inch (inch)
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/T-port DA (Double acting)
Without manual override
With socket fusion spigots metric

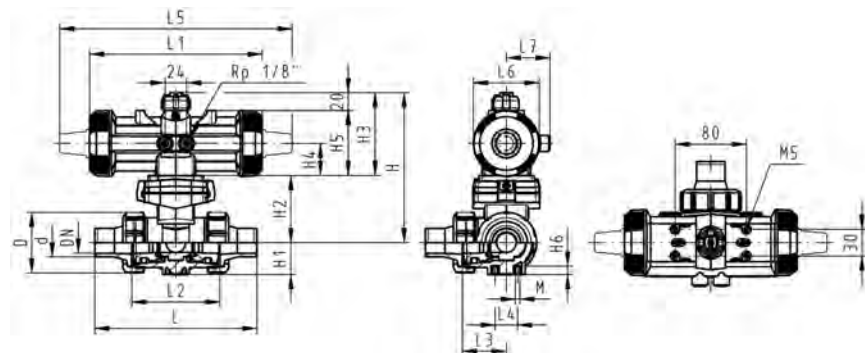
Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FKM Code	SP	Weight (kg)
16	10	10	140	199 287 152	1	0.999
20	15	10	200	199 287 153	1	1.011
25	20	10	470	199 287 154	1	1.176
32	25	10	793	199 287 155	1	1.425
40	32	10	1290	199 287 156	1	2.389
50	40	10	1910	199 287 157	1	3.009
63	50	10	3100	199 287 158	1	4.789

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	closest inch (inch)
16	48	6	3/8
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2

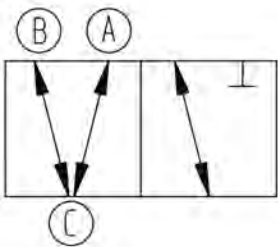
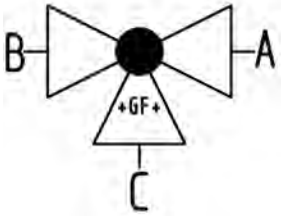




SYGEF Standard
3-Way ball valve type 287
Horizontal/T-port DA (Double acting)
Without manual override
With fusion sockets metric

Model:

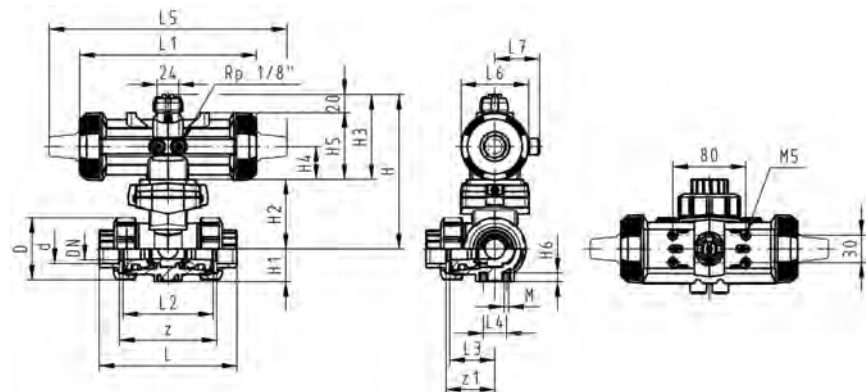
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

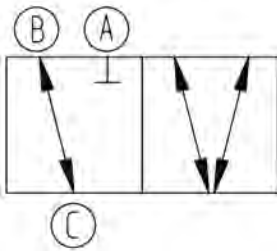
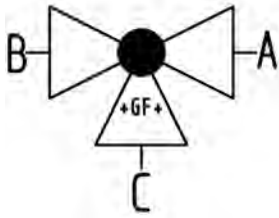


d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
16	10	10	140	199 287 232	1	0.991
20	15	10	200	199 287 233	1	0.999
25	20	10	470	199 287 234	1	1.157
32	25	10	793	199 287 235	1	1.394
40	32	10	1290	199 287 236	1	2.362
50	40	10	1910	199 287 237	1	2.928
63	50	10	3100	199 287 238	1	4.628

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d (mm)	L7 (mm)	M	z (mm)	z1 (mm)	closest inch (inch)
16	48	6	82	41	3/8
20	48	6	82	41	1/2
25	48	6	97	49	3/4
32	48	6	110	55	1
40	59	8	132	66	1 1/4
50	59	8	151	76	1 1/2
63	59	8	188	94	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/T-port
Without manual override
With socket fusion spigots metric

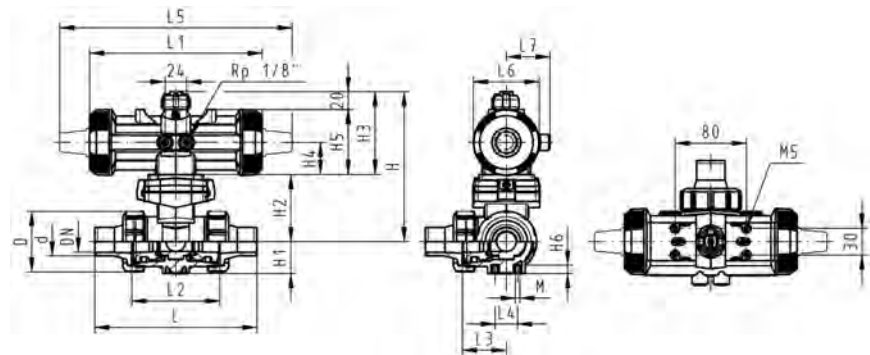
Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FKM Code	SP	Weight (kg)
16	10	10	140	199 287 032	1	1.189
20	15	10	200	199 287 033	1	1.201
25	20	10	470	199 287 034	1	1.366
32	25	10	793	199 287 035	1	1.615
40	32	10	1290	199 287 036	1	2.813
50	40	10	1910	199 287 037	1	3.433
63	50	10	3100	199 287 038	1	5.213

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	closest inch (inch)
16	48	6	3/8
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2

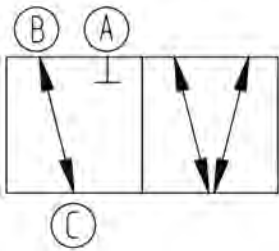
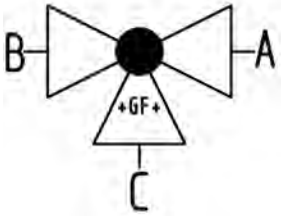




SYGEF Standard
3-Way ball valve type 287
Horizontal/T-port
Without manual override
With fusion sockets metric

Model:

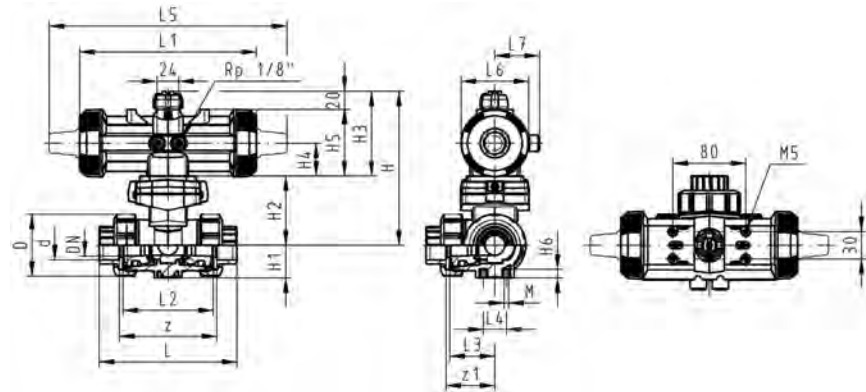
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

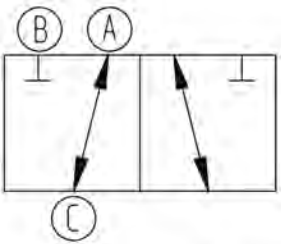
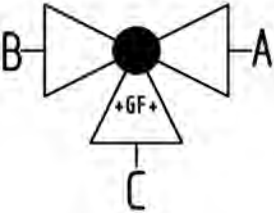


d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
16	10	10	140	199 287 112	1	1.182
20	15	10	200	199 287 113	1	1.189
25	20	10	470	199 287 114	1	1.347
32	25	10	793	199 287 115	1	1.584
40	32	10	1290	199 287 116	1	2.786
50	40	10	1910	199 287 117	1	3.154
63	50	10	3100	199 287 118	1	5.052

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d (mm)	L7 (mm)	M	z (mm)	z1 (mm)	closest inch (inch)
16	48	6	82	41	3/8
20	48	6	82	41	1/2
25	48	6	97	49	3/4
32	48	6	110	55	1
40	59	8	132	66	1 1/4
50	59	8	151	76	1 1/2
63	59	8	188	94	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/L-port DA (Double acting)
Without manual override
With fusion sockets metric

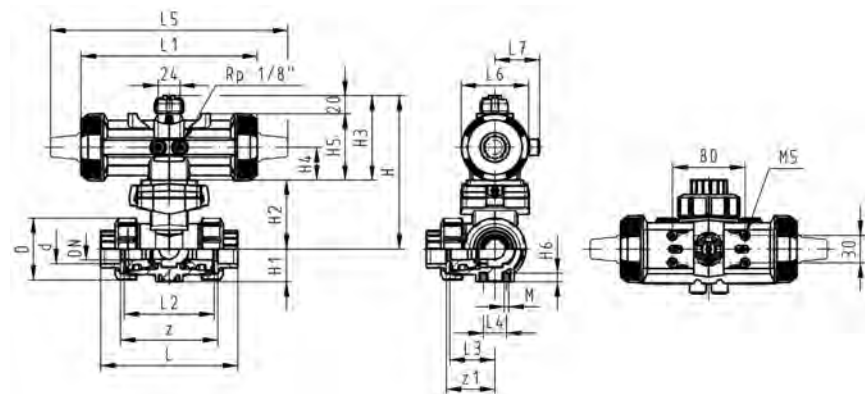
Model:

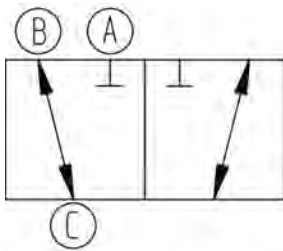
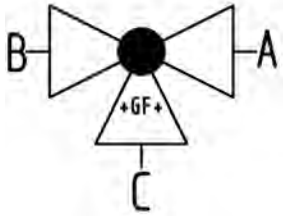
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
16	10	10	50	199 287 212	1	0.992
20	15	10	75	199 287 213	1	1.001
25	20	10	150	199 287 214	1	1.159
32	25	10	280	199 287 215	1	1.403
40	32	10	480	199 287 216	1	2.376
50	40	10	620	199 287 217	1	2.955
63	50	10	1230	199 287 218	1	4.347

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d (mm)	L7 (mm)	M	z (mm)	z1 (mm)	closest inch (inch)
16	48	6	82	41	3/8
20	48	6	82	41	1/2
25	48	6	97	49	3/4
32	48	6	110	55	1
40	59	8	132	66	1 1/4
50	59	8	151	76	1 1/2
63	59	8	188	94	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/L-port
Without manual override
With socket fusion spigots metric

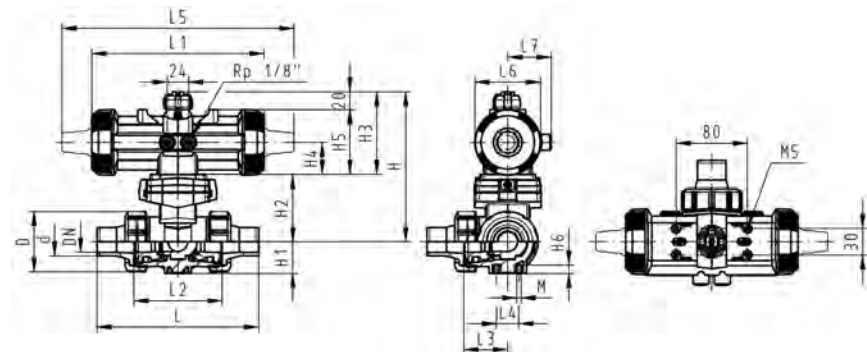
Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
16	10	10	50	199 287 012	1	1.191
20	15	10	75	199 287 013	1	1.202
25	20	10	150	199 287 014	1	1.369
32	25	10	280	199 287 015	1	1.623
40	32	10	480	199 287 016	1	2.827
50	40	10	620	199 287 017	1	3.460
63	50	10	1230	199 287 018	1	5.271

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	closest inch (inch)
16	48	6	$\frac{3}{8}$
20	48	6	$\frac{1}{2}$
25	48	6	$\frac{3}{4}$
32	48	6	1
40	59	8	1 $\frac{1}{4}$
50	59	8	1 $\frac{1}{2}$
63	59	8	2

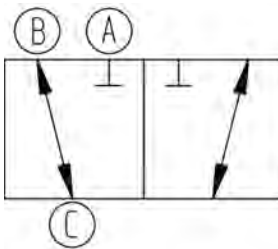
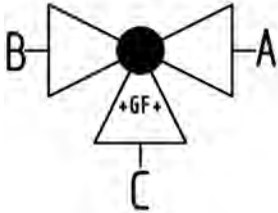




SYGEF Standard
3-Way ball valve type 287
Horizontal/L-port
Without manual override
With fusion sockets metric

Model:

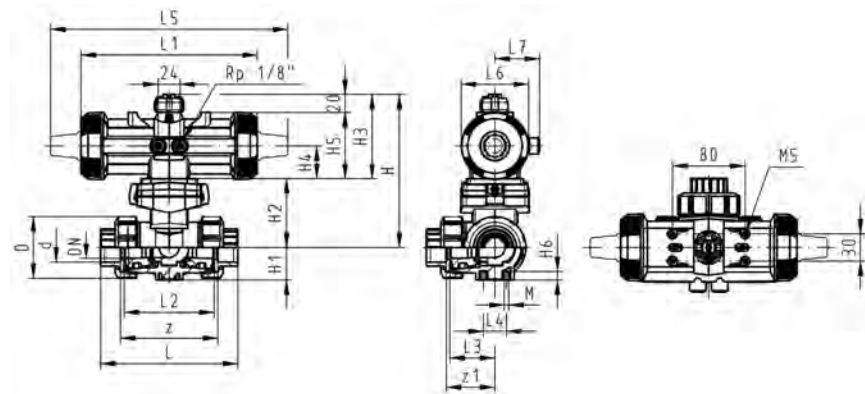
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time $90^\circ <$ 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
16	10	10	50	199 287 092	1	1.183
20	15	10	75	199 287 093	1	1.191
25	20	10	150	199 287 094	1	1.349
32	25	10	280	199 287 095	1	1.593
40	32	10	480	199 287 096	1	2.800
50	40	10	620	199 287 097	1	3.379
63	50	10	1230	199 287 098	1	5.109

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d (mm)	L7 (mm)	M	z (mm)	z1 (mm)	closest inch (inch)
16	48	6	82	41	$\frac{3}{8}$
20	48	6	82	41	$\frac{1}{2}$
25	48	6	97	49	$\frac{3}{4}$
32	48	6	110	55	1
40	59	8	132	66	1 $\frac{1}{4}$
50	59	8	151	76	1 $\frac{1}{2}$
63	59	8	188	94	2





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function DA (Double acting)
With manual override
With fusion sockets metric

Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

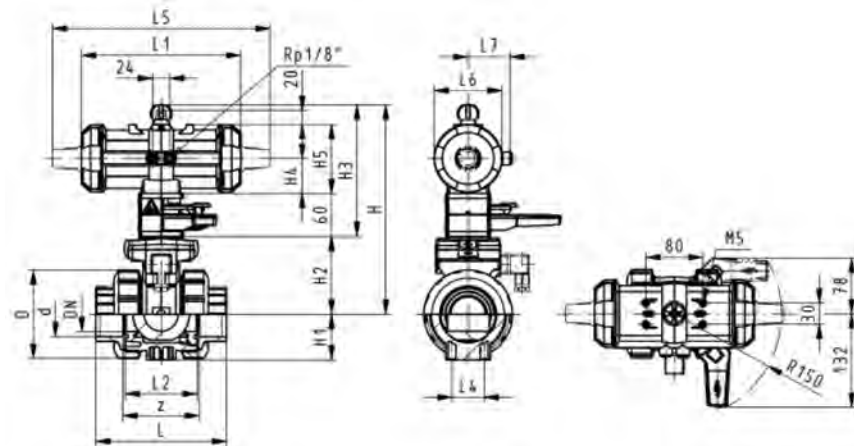
- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
16	10	10	70	199 232 092	1	1.500
20	15	10	185	199 232 093	1	1.500
25	20	10	350	199 232 094	1	1.600
32	25	10	700	199 232 095	1	1.331
40	32	10	1000	199 232 096	1	2.800
50	40	10	1600	199 232 097	1	3.100
63	50	10	3100	199 232 098	1	4.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
16	50	230	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	230	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	239	30	71	168	40	77	109	194	65	25	261	76	48	77
32	68	239	36	71	168	40	77	119	194	71	25	261	76	48	83
40	84	271	44	84	187	51	99	135	224	85	45	305	95	59	99
50	97	271	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	293	64	106	187	51	99	168	224	101	45	305	95	59	117

d closest
 (mm) **inch**
 (inch)

16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FO (Fail safe to open)
With manual override
With fixed flanges PVDF serrated metric

Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

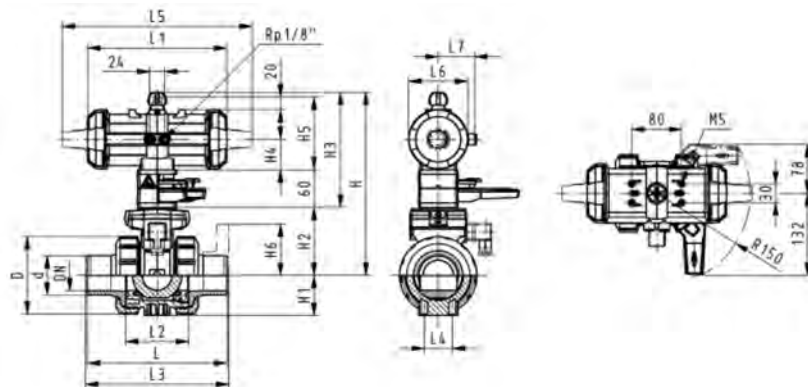
Option:

- Individual configuration of the valve

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	½	10	185	199 232 023	1	1.700
25	20	¾	10	350	199 232 024	1	1.900
32	25	1	10	700	199 232 025	1	2.100
40	32	1 ¼	10	1000	199 232 026	1	3.400
50	40	1 ½	10	1600	199 232 027	1	3.900
63	50	2	10	3100	199 232 028	1	5.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	230	27	62	168	40	77	48	124	194	56	130	25	261	76
25	58	239	30	71	168	40	77	53	144	194	65	150	25	261	76
32	68	239	36	71	168	40	77	58	154	194	71	160	25	261	76
40	84	271	44	84	187	51	99	70	174	224	85	180	45	305	95
50	97	271	51	84	187	51	99	75	194	224	89	200	45	305	95
63	124	293	64	106	187	51	99	83	224	224	101	230	45	305	95

d (mm)	L7 (mm)
20	48
25	48
32	48
40	59
50	59
63	59





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FO (Fail safe to open)
With manual override
With butt fusion spigots IR-Plus metric

Model:

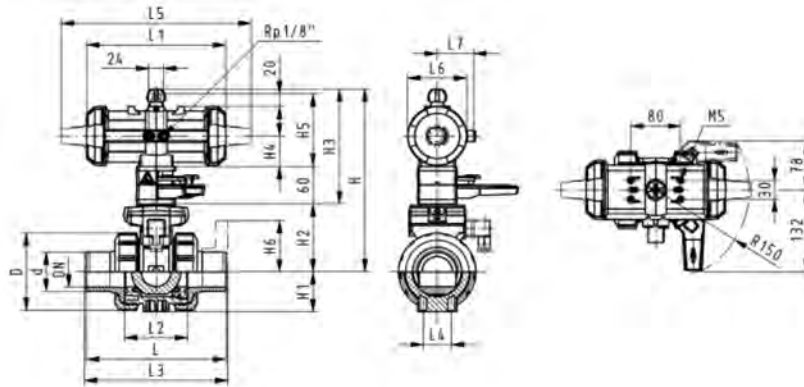
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
20	15	10	185	199 232 753	1	1.200
25	20	10	350	199 232 754	1	1.300
32	25	10	700	199 232 755	1	1.400
40	32	10	1000	199 232 756	1	2.500
50	40	10	1600	199 232 757	1	2.800
63	50	10	3100	199 232 758	1	3.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	closest inch (inch)
20	50	159	27	62	168	40	77	130	194	56	25	261	76	48	½
25	58	168	30	71	168	40	77	130	194	65	25	261	76	48	¾
32	68	168	36	71	168	40	77	130	194	71	25	261	76	48	1
40	84	202	44	84	187	51	99	130	224	85	45	305	95	59	1 ¼
50	97	202	51	84	187	51	99	130	224	89	45	305	95	59	1 ½
63	124	225	64	106	187	51	99	130	224	101	45	305	95	59	2





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FO (Fail safe to open)
With manual override
With socket fusion spigots metric

Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

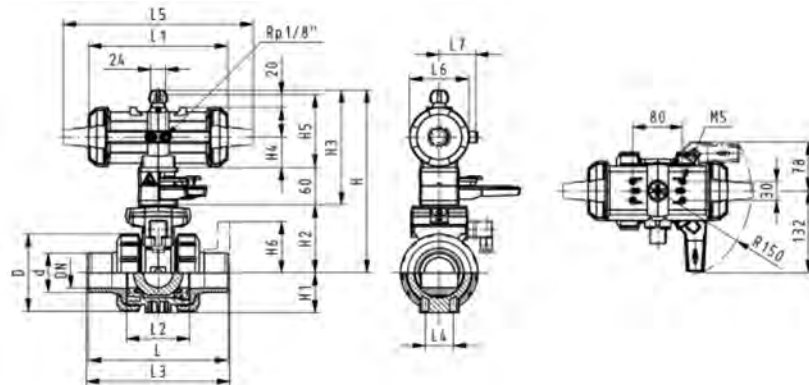
Option:

- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
16	10	10	70	199 232 072	1	1.500
20	15	10	185	199 232 073	1	1.500
25	20	10	350	199 232 074	1	1.600
32	25	10	700	199 232 075	1	1.700
40	32	10	1000	199 232 076	1	2.800
50	40	10	1600	199 232 077	1	3.100
63	50	10	3100	199 232 078	1	4.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
16	50	159	27	62	168	40	77	92	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	95	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	110	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	123	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	146	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	157	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	183	224	101	230	45	305	95	59

d (mm)	closest inch (inch)
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FO (Fail safe to open)
With manual override
With fusion sockets metric

Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

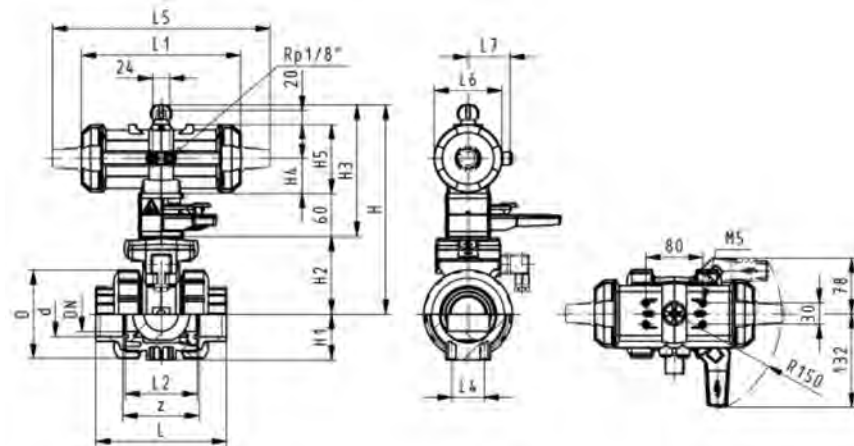
Option:

- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
16	10	10	70	199 232 052	1	1.500
20	15	10	185	199 232 053	1	1.500
25	20	10	350	199 232 054	1	1.600
32	25	10	700	199 232 055	1	1.700
40	32	10	1000	199 232 056	1	2.800
50	40	10	1600	199 232 057	1	3.100
63	50	10	3100	199 232 058	1	3.728

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
16	50	230	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	230	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	239	30	71	168	40	77	109	194	65	25	261	76	48	77
32	68	239	36	71	168	40	77	119	194	71	25	261	76	48	83
40	84	271	44	84	187	51	99	135	224	85	45	305	95	59	99
50	97	271	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	293	64	106	187	51	99	168	224	101	45	305	95	59	117

d (mm)	closest inch (inch)
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
With manual override
With fixed flanges PVDF serrated metric

Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

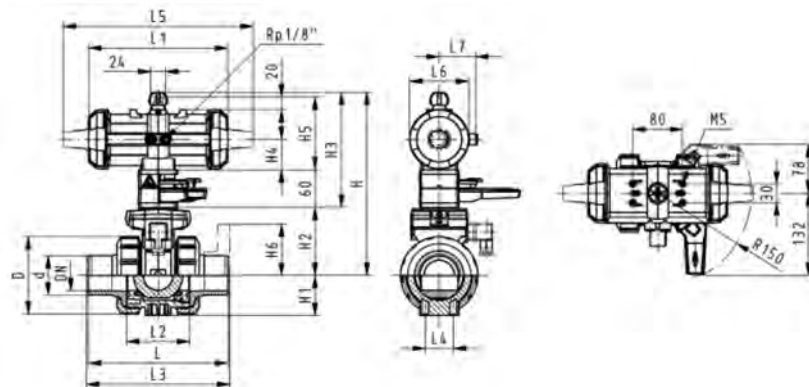
Option:

- Individual configuration of the valve

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
20	15	½	10	185	199 232 003	1	1.700
25	20	¾	10	350	199 232 004	1	1.900
32	25	1	10	700	199 232 005	1	2.100
40	32	1 ¼	10	1000	199 232 006	1	3.400
50	40	1 ½	10	1600	199 232 007	1	3.900
63	50	2	10	3100	199 232 008	1	5.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	230	27	62	168	40	77	48	124	194	56	130	25	261	76
25	58	239	30	71	168	40	77	53	144	194	65	150	25	261	76
32	68	239	36	71	168	40	77	58	154	194	71	160	25	261	76
40	84	271	44	84	187	51	99	70	174	224	85	180	45	305	95
50	97	271	51	84	187	51	99	75	194	224	89	200	45	305	95
63	124	293	64	106	187	51	99	83	224	224	101	230	45	305	95

d (mm)	L7 (mm)
20	48
25	48
32	48
40	59
50	59
63	59





DN10/15 - 50



DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
With manual override
With butt fusion spigots IR-Plus metric

Model:

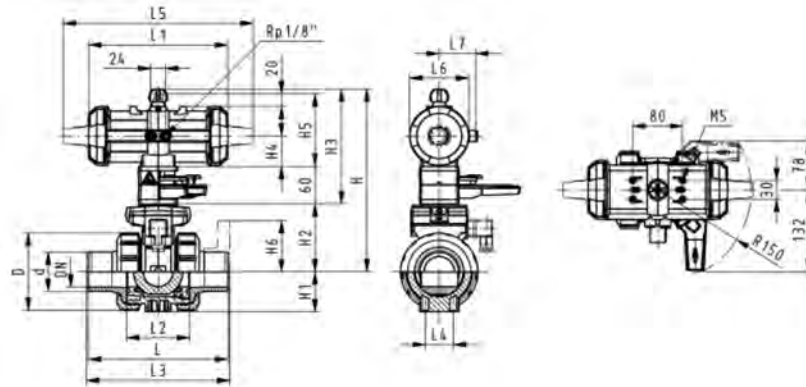
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
20	15	10	185	199 232 713	1	1.200
25	20	10	350	199 232 714	1	1.300
32	25	10	700	199 232 715	1	1.566
40	32	10	1000	199 232 716	1	2.602
50	40	10	1600	199 232 717	1	2.887
63	50	10	3100	199 232 718	1	4.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	closest inch (inch)
20	50	230	27	62	168	40	77	130	194	56	25	261	76	48	1/2
25	58	239	30	71	168	40	77	143	194	65	25	261	76	48	3/4
32	68	239	36	71	168	40	77	150	194	71	25	261	76	48	1
40	84	271	44	84	187	51	99	171	224	85	45	305	95	59	1 1/4
50	97	271	51	84	187	51	99	191	224	89	45	305	95	59	1 1/2
63	124	293	64	106	187	51	99	220	224	101	45	305	95	59	2





DN10/15 - 50



DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
With manual override
With socket fusion spigots metric

Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

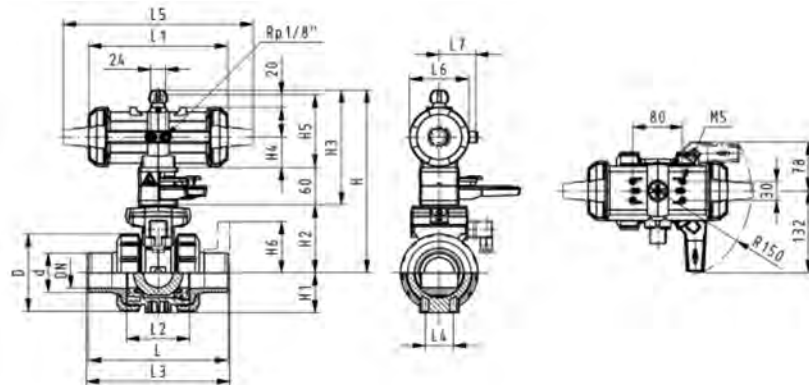
Option:

- Individual configuration of the valve

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)
16	10	10	70	199 232 032	1	1.500
20	15	10	185	199 232 033	1	1.304
25	20	10	350	199 232 034	1	1.439
32	25	10	700	199 232 035	1	1.700
40	32	10	1000	199 232 036	1	3.105
50	40	10	1600	199 232 037	1	3.100
63	50	10	3100	199 232 038	1	4.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
16	50	159	27	62	168	40	77	92	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	95	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	110	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	123	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	146	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	157	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	183	224	101	230	45	305	95	59

d (mm)	closest inch (inch)
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



Butterfly valves electric



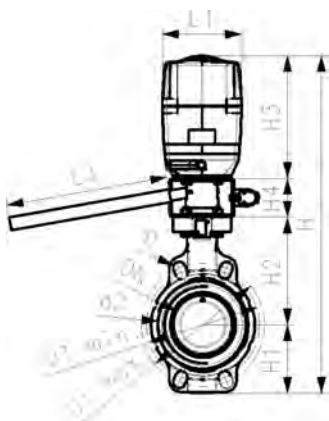
SYGEF Standard Butterfly valve type 145 100-230V With manual override

Model:

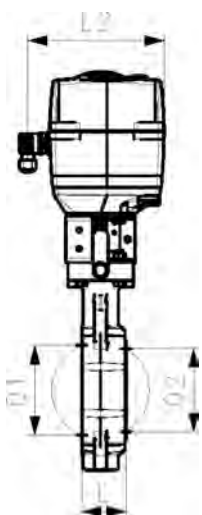
- Material: PVDF
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Overall length according to EN 558, ISO 5752 (DN50-200 line 25, DN250-300 line 16)
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220

Option:

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board



d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	Weight (kg)
63	50	2	10	740	199 145 562	5.718
75	65	2 ½	10	1500	199 145 563	5.830
90	80	3	10	2400	199 145 564	6.010
110	100	4	10	3800	199 145 565	6.662
140	125	5	10	8600	199 145 566	7.257
160	150	6	10	11400	199 145 567	8.477
225	200	8	10	19900	199 145 568	15.138



d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
63	EA-120	104	19	120	125	475	77	134	188	75	45	122	180	250
75	EA-120	115	19	140	145	488	83	140	188	75	46	122	180	250
90	EA-120	131	19	150	160	488	89	146	188	60	49	122	180	250
110	EA-120	161	19	175	191	520	104	167	188	60	56	122	180	250
140	EA-120	187	23	210	216	547	117	181	188	60	64	122	180	250
160	EA-120	215	24	241	241	568	130	189	188	60	72	122	180	250
225	EA-250	267	23	290	295	635	158	210	208	60	73	122	180	250

d (mm)	Q1 (mm)	Q2 (mm)
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169



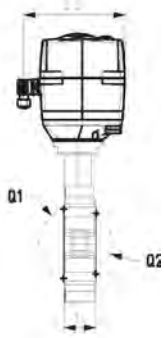
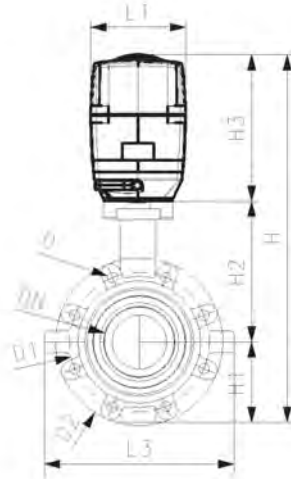
SYGEF Standard
Lugstyle butterfly valve type 146 100-230V
Without manual override

Model:

- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Overall length according to EN 558, ISO 5752 (DN50-200 line 25, DN250-300 line 16)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

Option:

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	Weight (kg)	PTFE Code
63	2	50	10	740	199 146 582	4.299	199 146 642
75	2 ½	65	10	1500	199 146 583	4.456	199 146 643
90	3	80	10	2400	199 146 584	4.701	199 146 644
110	4	100	10	3800	199 146 585	5.606	199 146 645
140	5	125	10	8600	199 146 586	7.120	199 146 646
160	6	150	10	11400	199 146 587	8.881	199 146 647
225	8	200	10	19900	199 146 588	13.625	199 146 648
280	10	250	6	34000	199 146 589	24.385	
315	12	300	4	50000	199 146 590	30.916	

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	EA-45	160	M16	125	399	77	134	188	45	122	180	165	40	
75	EA-45	180	M16	145	411	83	140	188	46	122	180	182	54	35
90	EA-120	195	M16	160	423	89	146	188	49	122	180	210	67	50
110	EA-120	226	M16	180	461	106	167	188	56	122	180	240	88	74
140	EA-120	258	M16	210	490	121	181	188	64	122	180	272	113	97
160	EA-120	284	M20	240	510	133	189	188	72	122	180	300	139	123
225	EA-120	341	M20	295	577	159	210	208	73	122	180	360	178	169
280	EA-120	412	M20	350	677	205	164	208	113	122	180	440	210	207
315	EA-250	482	M20	400	727	234	285	208	113	122	180	510	256	253



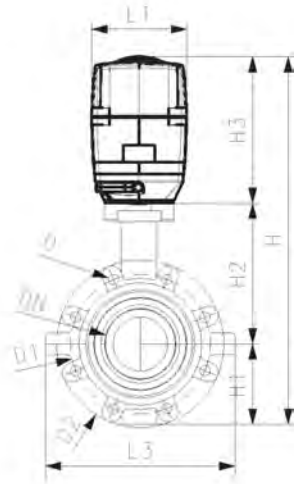
SYGEF Standard
Lugstyle butterfly valve type 147 100-230V
Without manual override

Model:

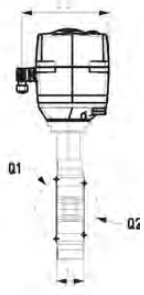
- Material: PVDF
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Overall length according to EN 558, ISO 5752 (DN50-200 line 25, DN250-300 line 16)
- Connecting dimension ANSI/ASME B 16.5 Class 150

Option:

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board



d	Size	DN	PN	kv-value	FKM	Weight	PTFE
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)	Code
				(l/min)			
63	2	50	10	740	199 147 582	4.500	199 147 642
75	2 ½	65	10	1500	199 147 583	4.600	199 147 643
90	3	80	10	2400	199 147 584	5.000	199 147 644
110	4	100	10	3800	199 147 585	6.000	199 147 645
140	5	125	10	8600	199 147 586	7.700	199 147 646
160	6	150	10	11400	199 147 587	9.000	199 147 647
225	8	200	10	19900	199 147 588	13.800	199 147 648
280	10	250	6	34000	199 147 589	24.500	
315	12	300	4	50000	199 147 590	31.200	



d	Size	Actuator unit type	d2	D	H	H1	H2	H3	D1	L	L1	L2	L3	Q1
(mm)	(inch)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	2	EA-45	150	UNC 5/8	399	77	134	188	139.7	45	122	180	150	40
75	2 ½	EA-45	170	UNC 5/8	411	83	140	188	120.6	46	122	180	160	54
90	3	EA-120	177	UNC 5/8	423	89	146	188	152.4	49	122	180	175	67
110	4	EA-120	216	UNC 5/8	459	104	167	188	190.5	56	122	180	244	88
140	5	EA-120	246	UNC 3/4	486	117	181	188	215.9	64	122	180	272	113
160	6	EA-120	273	UNC 3/4	507	130	189	188	241.3	72	122	180	297	139
225	8	EA-250	334	UNC 3/4	576	158	210	208	298.4	73	122	180	360	178
280	10	EA-250	412	UNC 7/8	677	205	264	208	362.0	113	122	180	440	210
315	12	EA-250	482	UNC 7/8	727	234	285	208	431.8	113	122	180	510	256

d	Size	Q2
(mm)	(inch)	(mm)
63	2	
75	2 ½	35
90	3	50
110	4	74
140	5	97
160	6	123
225	8	169
280	10	207
315	12	253

Butterfly valves pneumatic

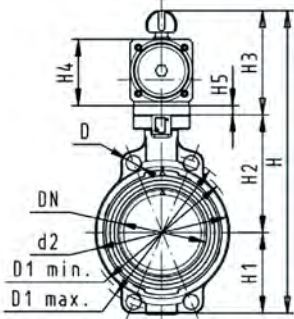


SYGEF Standard Butterfly valve type 240 FC (Fail safe to close) Without manual override

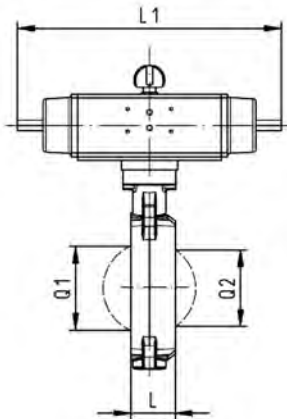
Model:

- Material: PVDF
- Control range 90°<
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220

d	Size	DN	PN	kv-value	FKM	SP	Weight	PTFE	SP	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code		(kg)	Code		(kg)
				(l/min)						
63	2	50	10	740	199 240 462	1	3.758	199 240 522	0	3.258
75	2 ½	65	10	1500	199 240 463	1	3.173	199 240 523	0	3.370
90	3	80	10	2400	199 240 464	1	3.550	199 240 524	0	3.550
110	4	100	10	3800	199 240 465	1	5.439	199 240 525	1	5.400
140	5	125	10	8600	199 240 466	1	6.997	199 240 526	0	6.997
160	6	150	10	11400	199 240 467	1	10.538	199 240 527	1	10.538
225	8	200	10	19900	199 240 468	1	15.138	199 240 528	0	15.138
280	10	250	10	34000	199 240 469	1	29.670	199 240 529	1	32.529
315	12	300	10	50000	199 240 470	1	38.156	199 240 530	1	38.156



d	Actuator unit	d2	D	D1	D1	H	H1	H2	H3	H4	H5	L	L1
(mm)	type	(mm)	(mm)	min.	max.	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
				(mm)	(mm)								
63	PA-30 FC	104	19	120	125	327	77	134	117	70	15	45	276
75	PA-30 FC	115	19	140	145	340	83	140	117	70	15	46	276
90	PA-35 FC	131	19	150	160	361	89	146	126	78	15	49	326
110	PA-40 FC	161	19	175	191	400	104	167	129	86		56	370
140	PA-45 FC	187	23	210	216	436	117	181	139	96		64	411
160	PA-50 FC	215	24	241	241	468	130	189	149	106		72	423
225	PA-55 FC	267	23	290	295	529	158	210	161	118		73	452
280	PA-65 FC	329	25	353	362	808	205	264	191	148		113	648
315	PA-70 FC	379	25	400	432	866	228	285	196	157		113	663



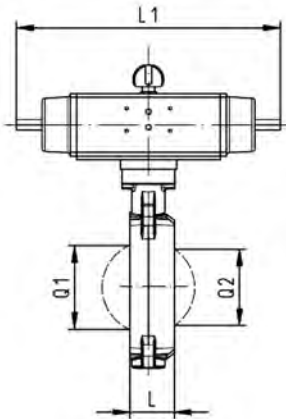
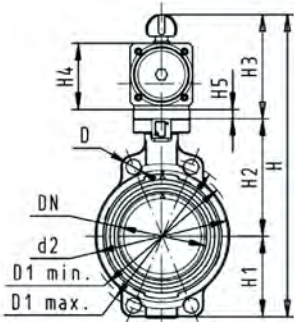
d	L2	Q1	Q2
(mm)	(mm)	(mm)	(mm)
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169
280	137	210	207
315	145	256	253



SYGEF Standard
Butterfly valve type 240
FO (Fail safe to open)
Without manual override

Model:

- Material: PVDF
- Control range 90°<
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FKM Code	SP	Weight (kg)	PTFE Code	SP	Weight (kg)
63	2	50	10	740	199 240 482	1	3.258	199 240 542	0	3.258
75	2 ½	65	10	1500	199 240 483	1	3.370	199 240 543	0	3.370
90	3	80	10	2400	199 240 484	1	3.550	199 240 544	0	3.550
110	4	100	10	3800	199 240 485	1	5.422	199 240 545	0	5.400
140	5	125	10	8600	199 240 486	1	6.997	199 240 546	0	6.997
160	6	150	10	11400	199 240 487	1	10.538	199 240 547	1	10.538
225	8	200	10	19900	199 240 488	1	15.138	199 240 548	1	15.000
280	10	250	10	34000	199 240 489	1	32.529	199 240 549	1	32.529
315	12	300	10	50000	199 240 490	1	37.419	199 240 550	1	37.419

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)
63	PA-30 FO	104	19	120	125	327	77	134	117	70	15	45	276
75	PA-30 FO	115	19	140	145	340	83	140	117	70	15	46	276
90	PA-35 FO	131	19	150	160	361	89	146	126	78	15	49	326
110	PA-40 FO	161	19	175	191	400	104	167	129	86		56	370
140	PA-45 FO	187	23	210	216	436	117	181	139	96		64	411
160	PA-50 FO	215	24	241	241	468	130	189	149	106		72	423
225	PA-55 FO	267	23	290	295	529	158	210	161	118		73	452
280	PA-70 FO	329	25	353	362	808	205	264	191	148		113	648
315	PA-70 FO	379	25	400	432	866	228	285	196	157		113	663

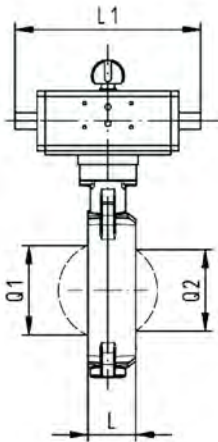
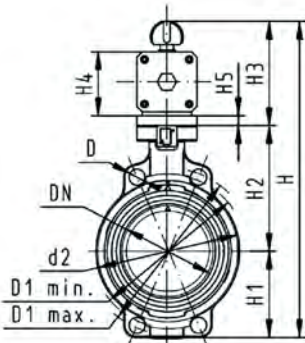
d (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169
280	137	210	207
315	145	256	253



SYGEF Standard
Butterfly valve type 240
DA (Double acting)
Without manual override

Model:

- Material: PVDF
- Control range 90°<
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)	PTFE Code	SP	Weight (kg)
63	2	50	10	740	199 240 502	1	2.368	199 240 562	0	2.108
75	2 ½	65	10	1500	199 240 503	1	2.488	199 240 563	0	2.220
90	3	80	10	2400	199 240 504	1	2.970	199 240 564	0	2.881
110	4	100	10	3800	199 240 505	1	3.987	199 240 565	0	3.652
140	5	125	10	8600	199 240 506	1	4.247	199 240 566	0	4.247
160	6	150	10	11400	199 240 507	1	7.017	199 240 567	0	7.017
225	8	200	10	19900	199 240 508	1	9.138	199 240 568	0	9.138
280	10	250	10	34000	199 240 509	1	20.233	199 240 569	1	20.233
315	12	300	10	50000	199 240 510	1	28.223	199 240 570	1	28.223

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)
63	PA-35 DA	104	19	120	125	317	77	134	107	60	15	45	177
75	PA-35 DA	115	19	140	145	330	83	140	107	60	15	46	177
90	PA-40 DA	131	19	150	160	348	89	146	113	66	15	49	190
110	PA-45 DA	161	19	175	191	372	104	167	102	71		56	235
140	PA-45 DA	187	23	210	216	408	117	181	111	78		64	235
160	PA-55 DA	215	24	241	241	448	130	189	129	86		72	279
225	PA-55 DA	267	23	290	295	507	158	210	139	96		73	279
280	PA-65 DA	329	25	353	362	748	205	264	161	118		113	350
315	PA-70 DA	379	25	400	432	816	228	285	173	130		113	381

d (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	55	40	
75	55	54	35
90	60	67	50
110	65	88	74
140	72	113	97
160	80	139	123
225	90	178	169
280	112	210	207
315	125	256	253



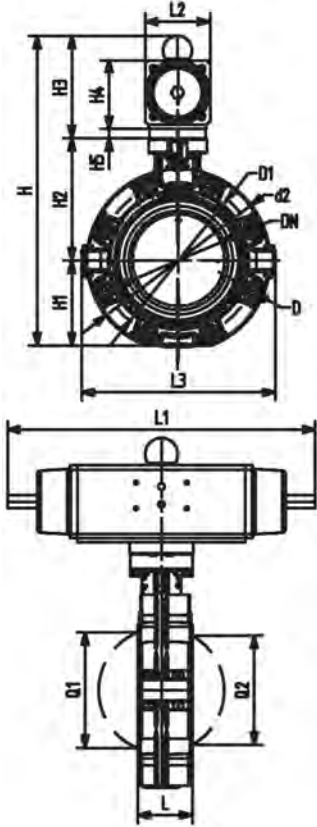
SYGEF Standard
Lugstyle butterfly valve type 243
FC (Fail safe to close)
Without manual override

Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
63	2	50	10	740	199 243 462	1	3.499
75	2 ½	65	10	1500	199 243 463	1	3.656
90	3	80	10	2400	199 243 464	1	4.692
110	4	100	10	3800	199 243 465	1	6.406
140	5	125	10	8600	199 243 466	1	9.222
160	6	150	10	11400	199 243 467	1	12.902
225	8	200	10	19900	199 243 468	1	16.691
280	10	250	10	34000	199 243 469	1	33.880
315	12	300	10	50000	199 243 470	1	43.985

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
63	PA-30 FC	160	M16	125	399	77	134	117	70	15	45	276	65	165
75	PA-30 FC	180	M16	145	340	83	140	117	70	15	46	276	65	182
90	PA-35 FC	195	M16	160	361	89	146	126	78	15	49	326	72	210
110	PA-40 FC	226	M16	180	402	106	167	129	86		56	370	80	240
140	PA-45 FC	258	M16	210	441	121	181	139	96		64	411	90	272
160	PA-50 FC	284	M20	240	471	133	189	149	106		72	423	100	300
225	PA-55 FC	341	M20	295	530	159	210	161	118		73	452	112	360
280	PA-65 FC	412	M20	350	660	205	264	191	148		113	648	137	440
315	PA-70 FC	482	M20	400	715	234	285	196	157		113	663	145	510

d (mm)	Q1 (mm)	Q2 (mm)
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169
280	210	207
315	256	253



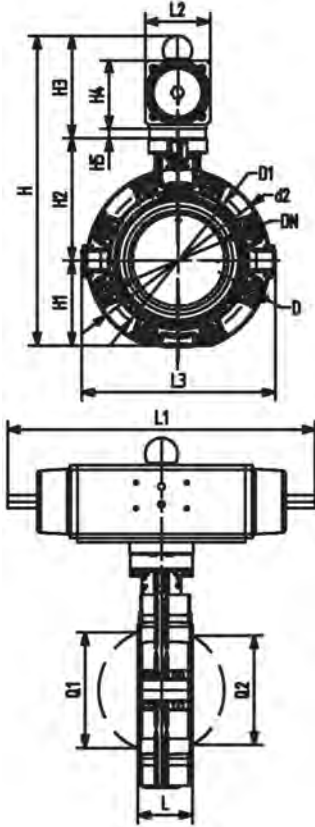
SYGEF Standard
Lugstyle butterfly valve type 243
FO (Fail safe to open)
Without manual override

Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
63	2	50	10	740	199 243 482	1	3.499
75	2 ½	65	10	1500	199 243 483	1	3.656
90	3	80	10	2400	199 243 484	1	4.692
110	4	100	10	3800	199 243 485	1	6.406
140	5	125	10	8600	199 243 486	1	9.222
160	6	150	10	11400	199 243 487	1	12.902
225	8	200	10	19900	199 243 488	1	16.691
280	10	250	10	34000	199 243 489	1	33.880
315	12	300	10	50000	199 243 490	1	43.985

d (mm)	Actuator unit type	d2 (mm)	D	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
63	PA-30 FO	160	M16	125	328	77	134	117	70	15	45	276	65	165
75	PA-30 FO	180	M16	145	340	83	140	117	70	15	46	276	65	182
90	PA-35 FO	195	M16	160	361	89	146	126	78	15	49	326	72	210
110	PA-40 FO	226	M16	180	402	106	167	129	86		56	370	80	240
140	PA-45 FO	258	M16	210	441	121	181	139	96		64	411	90	272
160	PA-50 FO	284	M20	240	471	133	189	149	106		72	423	100	300
225	PA-55 FO	341	M20	295	530	159	210	161	118		73	452	112	360
280	PA-70 FO	412	M20	350	660	205	264	191	148		113	648	137	440
315	PA-70 FO	482	M20	400	715	234	285	196	157		113	663	145	510

d (mm)	Q1 (mm)	Q2 (mm)
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169
280	210	207
315	256	253



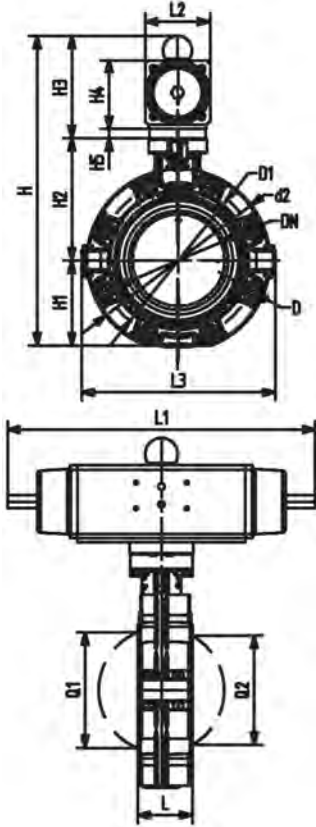
SYGEF Standard
LUGstyle butterfly valve type 243
DA (Double acting)
Without manual override

Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FKM Code	SP	Weight (kg)
63	2	50	10	740	199 243 502	1	3.499
75	2 ½	65	10	1500	199 243 503	1	3.656
90	3	80	10	2400	199 243 504	1	4.692
110	4	100	10	3800	199 243 505	1	6.406
140	5	125	10	8600	199 243 506	1	9.222
160	6	150	10	11400	199 243 507	1	12.902
225	8	200	10	19900	199 243 508	1	16.691
280	10	250	10	34000	199 243 509	1	33.880
315	12	300	10	50000	199 243 510	1	43.985

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
63	PA-35 DA	160	M16	125	318	77	134	107	60	15	45	177	55	165
75	PA-35 DA	180	M16	145	330	83	140	107	60	15	46	177	55	182
90	PA-40 DA	195	M16	160	348	89	146	113	66	15	49	190	60	210
110	PA-45 DA	226	M16	180	384	106	167	111	78		56	235	72	240
140	PA-45 DA	258	M16	210	413	121	181	111	78		64	235	72	272
160	PA-55 DA	284	M20	240	461	133	189	139	96		72	279	90	300
225	PA-55 DA	341	M20	295	508	159	210	139	96		73	279	90	360
280	PA-65 DA	412	M20	350	630	205	264	161	118		113	350	112	440
315	PA-70 DA	482	M20	400	692	234	285	173	130		113	381	124	510

d (mm)	Q1 (mm)	Q2 (mm)
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169
280	210	207
315	256	253



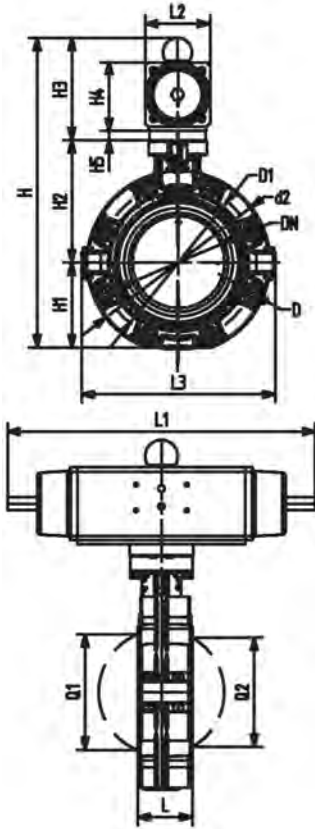
SYGEF Standard
Lugstyle butterfly valve type 244 ANSI
FC (Fail safe to close)
Without manual override

Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code		(kg)
				(l/min)			
63	2	50	10	740	199 244 462	1	3.500
75	2 ½	65	10	1500	199 244 463	1	3.600
90	3	80	10	2400	199 244 464	1	4.692
110	4	100	10	3800	199 244 465	1	6.400
140	5	125	10	8600	199 244 466	1	9.200
160	6	150	10	11400	199 244 467	1	12.902
225	8	200	10	19900	199 244 468	1	16.700
280		250	10	34000	199 244 469	1	33.900
315		300	10	50000	199 244 470	1	43.900

Actuator unit type	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1	L2	L3
	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
PA-30 FC	160	UNC 5/8	120.6	328	77	134	117	70	15	45	276	65	165
PA-30 FC	180	UNC 5/8	139.7	340	83	140	117	70	15	46	276	65	182
PA-35 FC	195	UNC 5/8	152.4	361	89	146	126	78	15	49	326	72	210
PA-40 FC	226	UNC 5/8	190.5	402	106	167	129	86		56	370	80	240
PA-45 FC	258	UNC 3/4	215.9	441	121	181	139	96		64	411	90	272
PA-50 FC	284	UNC 3/4	241.3	471	133	189	149	106		72	423	100	300
PA-55 FC	341	UNC 3/4	298.4	530	159	210	161	118		73	452	112	360
PA-65 FC	412	UNC 3/4	362.0	660	205	264	191	148		113	648	137	440
PA-70 FC	482	UNC 3/4	431.8	715	234	285	196	157		113	663	145	510

Q1	Q2
(mm)	(mm)
40	
54	35
67	50
88	74
113	97
139	123
178	169
210	207
256	253



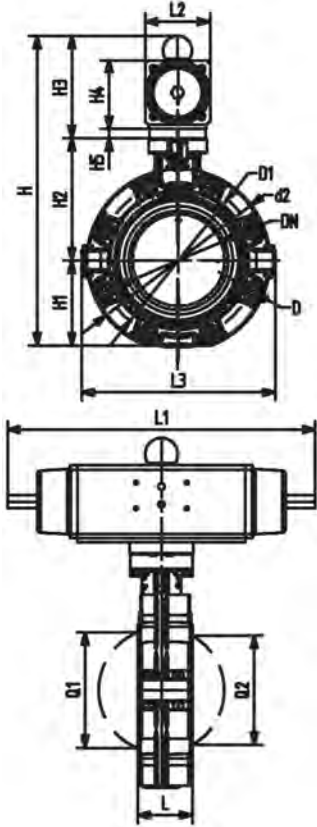
SYGEF Standard
Lugstyle butterfly valve type 244 ANSI
FO (Fail safe to open)
Without manual override

Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code		(kg)
				(l/min)			
63	2	50	10	740	199 244 482	1	3.499
75	2 ½	65	10	1500	199 244 483	1	3.656
90	3	80	10	2400	199 244 484	1	4.692
110	4	100	10	3800	199 244 485	1	6.406
140	5	125	10	8600	199 244 486	1	9.222
160	6	150	10	11400	199 244 487	1	12.902
225	8	200	10	19900	199 244 488	1	16.691
280	10	250	10	34000	199 244 489	1	33.880
315	12	300	10	50000	199 244 490	1	43.985

Actuator unit type	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1	L2	L3
	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
PA-30 FO	160	UNC 5/8	120.6	328	77	134	117	70	15	45	276	65	165
PA-30 FO	180	UNC 5/8	139.7	340	83	140	117	70	15	46	276	65	182
PA-35 FO	195	UNC 5/8	152.4	361	89	146	126	78	15	49	326	72	210
PA-40 FO	226	UNC 5/8	190.5	402	106	167	129	86		56	370	80	240
PA-45 FO	258	UNC 3/4	215.9	441	121	181	139	96		64	411	90	272
PA-50 FO	284	UNC 3/4	241.3	471	133	189	149	106		72	423	100	300
PA-55 FO	341	UNC 3/4	298.4	530	159	210	161	118		73	452	112	360
PA-70 FO	412	UNC 3/4	362.0	660	205	264	191	148		113	648	137	440
PA-70 FO	482	UNC 3/4	431.8	715	234	285	196	157		113	663	145	510

Q1	Q2
(mm)	(mm)
40	
54	35
67	50
88	74
113	97
139	123
178	169
210	207
256	253



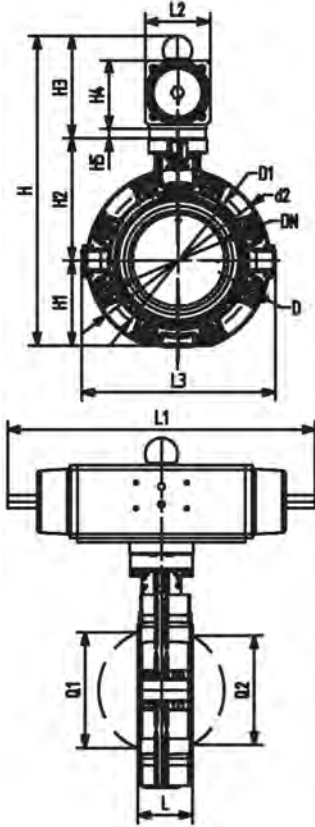
SYGEF Standard
Lugstyle butterfly valve type 244 ANSI
DA (Double acting)
Without manual override

Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	FKM	SP	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code		(kg)
				(l/min)			
63	2	50	10	740	199 244 502	1	4.198
75	2 ½	65	10	1500	199 244 503	1	4.561
90	3	80	10	2400	199 244 504	1	5.470
110	4	100	10	3800	199 244 505	1	7.750
140	5	125	10	8600	199 244 506	1	9.731
160	6	150	10	11400	199 244 507	1	13.500
225	8	200	10	19900	199 244 508	1	19.114
280	10	250	10	34000	199 244 509	1	0.001
315	12	300	10	50000	199 244 510	1	0.001

Actuator unit type	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1	L2	L3
	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
PA-35 DA	160	UNC 5/8	120.6	318	77	134	107	60	15	45	177	55	165
PA-35 DA	180	UNC 5/8	139.7	330	83	140	107	60	15	46	177	55	182
PA-40 DA	195	UNC 5/8	152.4	348	89	146	113	66	15	49	190	60	210
PA-45 DA	226	UNC 5/8	190.5	384	106	167	111	78		56	235	72	240
PA-45 DA	258	UNC 3/4	215.9	413	121	181	111	78		64	235	72	272
PA-55 DA	284	UNC 3/4	241.3	461	133	189	139	96		72	279	90	300
PA-55 DA	341	UNC 3/4	298.4	508	159	210	139	96		73	279	90	360
PA-65 DA	412	UNC 3/4	362.0	630	205	264	161	118		113	350	112	440
PA-70 DA	482	UNC 3/4	431.8	692	234	285	173	130		113	381	124	510

Q1	Q2
(mm)	(mm)
40	
54	35
67	50
88	74
113	97
139	123
178	169
210	207
256	253

Diaphragm valves pneumatic New generation



SYGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) Unions with fusion sockets metric

Model:

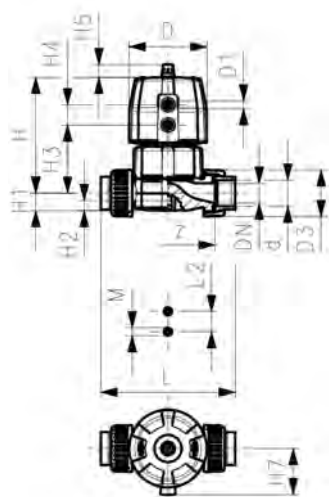
- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

* PN: PTFE

Working Pressure: **one side**

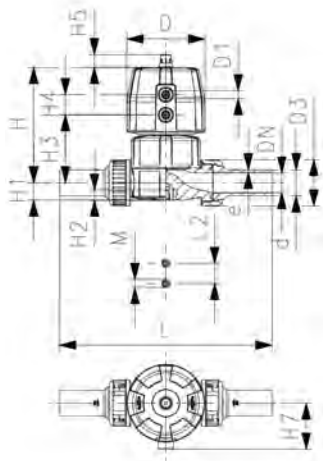


d (mm)	DN (mm)	PN* (bar)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	10/10*	125	185 624 032	1	0.611	185 624 052	1	0.611
25	20	10/10*	271	185 624 033	1	1.216	185 624 053	1	1.216
32	25	10/10*	481	185 624 034	1	1.565	185 624 054	1	1.565
40	32	10/10*	759	185 624 035	1	2.489	185 624 055	1	2.489
50	40	10/10*	1263	185 624 036	1	4.266	185 624 056	1	4.266
63	50	10/6*	1728	185 624 037	1	5.358	185 624 057	1	5.358

d (mm)	FKM Code
20	185 624 062
25	185 624 063
32	185 624 064
40	185 624 065
50	185 624 066
63	185 624 067

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	128	25	M6	100	7
25	96	1/8	132	18	12	73	25	16	57	150	25	M6	118	10
32	96	1/8	143	22	12	84	25	16	57	162	25	M6	126	13
40	120	1/8	173	26	15	99	26	26	69	184	45	M8	144	15
50	150	1/4	214	32	15	119	36	26	88	210	45	M8	164	19
63	150	1/4	226	39	15	132	36	26	88	248	45	M8	194	23

d (mm)	closest inch (inch)
20	1/2
25	3/8
32	1
40	1 1/4
50	1 1/2
63	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
FC (Fail safe to close)
Unions with butt fusion spigots metric

Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

* PN: PTFE

Working Pressure: **one side**

d (mm)	DN (mm)	PN* (bar)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	10/10*	125	185 624 132	1	0.630	185 624 152	1	1.100
25	20	10/10*	271	185 624 133	1	1.405	185 624 153	1	1.760
32	25	10/10*	481	185 624 134	1	1.515	185 624 154	1	2.610
40	32	10/10*	759	185 624 135	1	2.570	185 624 155	1	3.760
50	40	10/10*	1263	185 624 136	1	4.697	185 624 156	1	6.220
63	50	10/6*	1728	185 624 137	1	5.327	185 624 157	1	7.800

d (mm)	FKM Code
20	185 624 162
25	185 624 163
32	185 624 164
40	185 624 165
50	185 624 166
63	185 624 167

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	⅞	101	14	12	60	24	16	43	196	25	M6	1.9	7
25	96	⅞	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	96	⅞	143	22	12	84	25	16	57	234	25	M6	2.4	13
40	120	⅞	173	26	15	99	26	26	69	260	45	M8	2.4	15
50	150	⅞	214	32	15	119	36	26	88	284	45	M8	3.0	19
63	150	⅞	226	39	15	132	36	26	88	321	45	M8	3.0	23

d (mm)	closest inch (inch)
20	⅓
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
FC (Fail safe to close)
With backing flanges PP-V Inch ANSI

Model:

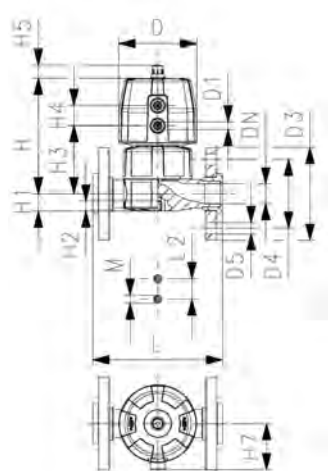
- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

* PN: PTFE

Working Pressure: **one side**



Size (inch)	DN (mm)	PN* (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
½	15	10/10*	125	185 627 732	1	0.870	185 627 752	1	0.870
¾	20	10/10*	271	185 627 733	1	1.473	185 627 753	1	1.473
1	25	10/10*	481	185 627 734	1	1.791	185 627 754	1	1.791
1 ¼	32	10/10*	759	185 627 735	1	2.854	185 627 755	1	2.854
1 ½	40	10/10*	1263	185 627 736	1	4.481	185 627 756	1	4.481
2	50	10/6*	1728	185 627 737	1	5.762	185 627 757	1	5.762

Size (inch)	FKM Code
½	185 627 762
¾	185 627 763
1	185 627 764
1 ¼	185 627 765
1 ½	185 627 766
2	185 627 767

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
½	68	¾	95	60	16	101	14	12	60	24	16	43	130	25	M6
¾	96	¾	105	70	16	132	18	12	73	25	16	57	150	25	M6
1	96	¾	115	79	16	143	22	12	84	25	16	69	160	25	M6
1 ¼	120	¾	140	89	16	173	26	15	99	26	26	69	180	45	M8
1 ½	150	¾	150	98	16	193	32	15	119	36	26	88	200	45	M8
2	150	¾	165	121	19	205	39	15	132	36	26	88	230	45	M8

Size (inch)	Lift = Hx (mm)
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23



SYGEF Standard
Diaphragm valve DIASTAR Ten
FC (Fail safe to close)
With backing flanges PP-V metric/BS

Model:

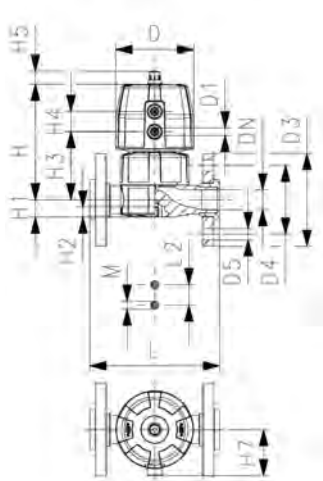
- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	10/10*	125	185 627 132	1	0.754	185 627 152	1	0.754
25	20	10/10*	271	185 627 133	1	1.473	185 627 153	1	1.473
32	25	10/10*	481	185 627 134	1	1.699	185 627 154	1	1.699
40	32	10/10*	759	185 627 135	1	2.854	185 627 155	1	2.854
50	40	10/10*	1263	185 627 136	1	4.481	185 627 156	1	4.481
63	50	10/6*	1728	185 627 137	1	5.686	185 627 157	1	5.686

d (mm)	FKM Code
20	185 627 162
25	185 627 163
32	185 627 164
40	185 627 165
50	185 627 166
63	185 627 167

d (mm)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
20	68	1/8	95	65	14	101	14	12	60	24	16	43	130	25	M6
25	96	1/8	105	75	14	132	18	12	73	25	16	57	150	25	M6
32	96	1/8	115	85	14	143	22	12	84	25	16	69	160	25	M6
40	120	1/8	140	100	18	173	26	15	99	26	26	69	180	45	M8
50	150	1/8	150	110	18	193	32	15	119	36	26	88	200	45	M8
63	150	1/8	165	125	18	205	39	15	132	36	26	88	230	45	M8

d (mm)	Lift = Hx (mm)	closest inch (inch)
20	7	1/2
25	10	3/4
32	13	1
40	15	1 1/4
50	19	1 1/2
63	23	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
FO (Fail safe to open)
With backing flanges PP-V Inch ANSI

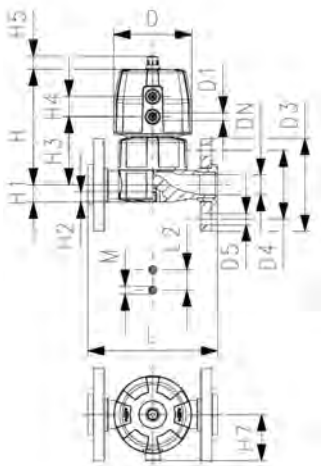
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **one side**



Size (inch)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
½	15	125	185 647 732	1	0.820	185 647 752	1	0.820
¾	20	271	185 647 733	1	1.299	185 647 753	1	1.299
1	25	481	185 647 734	1	1.611	185 647 754	1	1.611
1 ¼	32	759	185 647 735	1	2.494	185 647 755	1	2.494
1 ½	40	1263	185 647 736	1	4.391	185 647 756	1	4.391
2	50	1728	185 647 737	1	5.672	185 647 757	1	5.672

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
½	68	¾	95	60	16	101	14	12	60	24	16	57	130	25	M6
¾	96	¾	105	70	16	132	18	12	73	25	16	57	150	25	M6
1	96	¾	115	79	16	143	22	12	84	25	16	69	160	25	M6
1 ¼	120	¾	140	89	16	173	26	15	99	26	26	88	180	45	M8
1 ½	150	¾	150	98	16	214	32	15	119	36	26	103	200	45	M8
2	150	¾	165	121	19	226	39	15	132	36	26	103	230	45	M8

Size (inch)	Lift = Hx (mm)
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23



SYGEF Standard
Diaphragm valve DIASTAR Ten
FO (Fail safe to open)
With backing flanges PP-V metric/BS

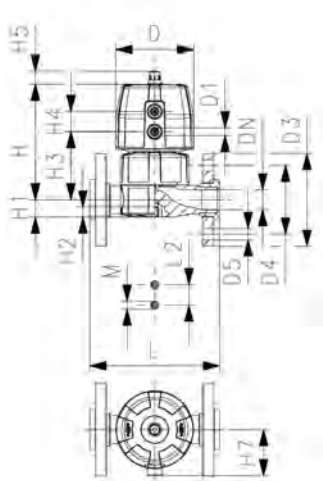
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	125	185 647 132	1	0.820	185 647 152	1	0.820
25	20	271	185 647 133	1	1.299	185 647 153	1	1.299
32	25	481	185 647 134	1	1.611	185 647 154	1	1.611
40	32	759	185 647 135	1	2.494	185 647 155	1	2.494
50	40	1263	185 647 136	1	4.391	185 647 156	1	4.391
63	50	1728	185 647 137	1	5.040	185 647 157	1	5.040

d (mm)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
20	68	1/8	95	65	14	101	14	12	60	24	16	57	130	25	M6
25	96	1/8	105	75	14	132	18	12	73	25	16	57	150	25	M6
32	96	1/8	115	85	14	143	22	12	84	25	16	69	160	25	M6
40	120	1/8	140	100	18	173	26	15	99	26	26	88	180	45	M8
50	150	1/4	150	110	18	214	32	15	119	36	26	103	200	45	M8
63	150	1/4	165	125	18	226	39	15	132	36	26	103	230	45	M8

d (mm)	Lift = Hx (mm)	closest inch (inch)
20	7	1/2
25	10	3/4
32	13	1
40	15	1 1/4
50	19	1 1/2
63	23	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
DA (Double acting)
With backing flanges PP-V Inch ANSI

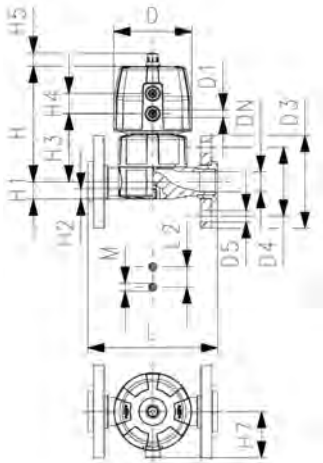
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **one side**



Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
½	15	10	125	185 657 732	1	0.804	185 657 752	1	0.804
¾	20	10	271	185 657 733	1	1.263	185 657 753	1	1.263
1	25	10	481	185 657 734	1	1.581	185 657 754	1	1.581
1 ¼	32	10	759	185 657 735	1	2.434	185 657 755	1	2.434
1 ½	40	10	1263	185 657 736	1	3.641	185 657 756	1	3.641
2	50	6	1728	185 657 737	1	4.922	185 657 757	1	4.922

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
½	68	¾	95	60	16	101	14	12	60	24	16	57	130	25	M6
¾	96	¾	105	70	16	132	18	12	73	25	16	57	150	25	M6
1	96	¾	115	79	16	143	22	12	84	25	16	69	160	25	M6
1 ¼	120	¾	140	89	16	173	26	15	99	26	26	88	180	45	M8
1 ½	150	¾	150	98	16	214	32	15	119	36	26	103	200	45	M8
2	150	¾	165	121	19	226	39	15	132	36	26	103	230	45	M8

Size (inch)	Lift = Hx (mm)
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23



SYGEF Standard
Diaphragm valve DIASTAR Ten
DA (Double acting)
With backing flanges PP-V metric/BS

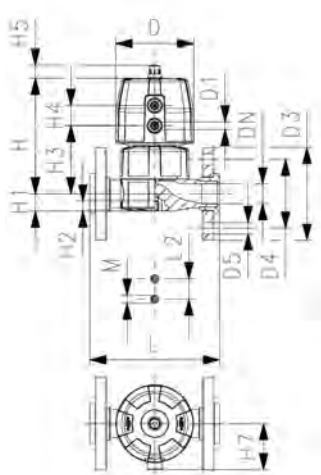
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	125	185 657 132	1	0.804	185 657 152	1	0.804
25	20	271	185 657 133	1	1.200	185 657 153	1	1.200
32	25	481	185 657 134	1	1.581	185 657 154	1	1.581
40	32	759	185 657 135	1	2.434	185 657 155	1	2.434
50	40	1263	185 657 136	1	3.937	185 657 156	1	3.937
63	50	1728	185 657 137	1	4.922	185 657 157	1	4.922

d	D	D1_G	D3	D4	D5	H	H1	H2	H3	H4	H5	H7	L	L2	M
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	68	⅜	95	65	14	101	14	12	60	24	16	57	130	25	M6
25	96	⅜	105	75	14	132	18	12	73	25	16	57	150	25	M6
32	96	⅜	115	85	14	143	22	12	84	25	16	69	160	25	M6
40	120	⅜	140	100	18	173	26	15	99	26	26	88	180	45	M8
50	150	⅜	150	110	18	214	32	15	119	36	26	103	200	45	M8
63	150	⅜	165	125	18	226	39	15	132	36	26	103	230	45	M8

d (mm)	Lift = Hx (mm)	closest inch (inch)
20	7	⅜
25	10	⅜
32	13	1
40	15	1 ¼
50	19	1 ½
63	23	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
DA (Double acting)
With butt fusion spigots metric

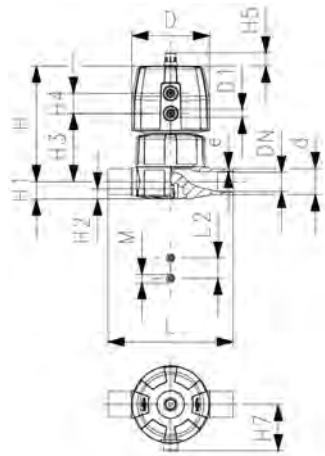
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	125	185 655 132	1	0.603	185 655 152	1	0.603
25	20	271	185 655 133	1	0.981	185 655 153	1	0.981
32	25	481	185 655 134	1	1.193	185 655 154	1	1.193
40	32	759	185 655 135	1	1.823	185 655 155	1	1.823
50	40	1263	185 655 136	1	2.986	185 655 156	1	2.986
63	50	1728	185 655 137	1	3.796	185 655 157	1	3.796

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	2	7
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	2	10
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	2	13
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	2	15
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	3	19
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	3	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
DA (Double acting)
With socket fusion spigots metric

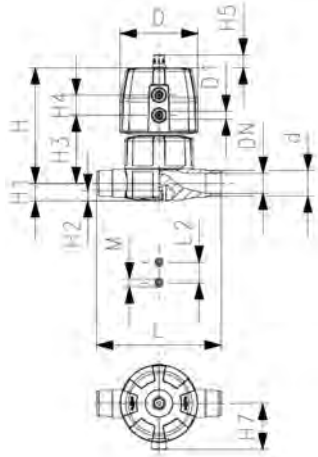
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	125	185 655 032	1	0.604	185 655 052	1	0.604
25	20	271	185 655 033	1	0.989	185 655 053	1	0.989
32	25	481	185 655 034	1	1.201	185 655 054	1	1.201
40	32	759	185 655 035	1	1.848	185 655 055	1	1.848
50	40	1263	185 655 036	1	3.031	185 655 056	1	3.031
63	50	1728	185 655 037	1	3.878	185 655 057	1	3.878

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)	closest inch (inch)
20	68	⅝	101	14	12	60	24	16	43	124	25	M6	7	⅓
25	96	⅞	132	18	12	73	25	16	57	144	25	M6	10	⅜
32	96	⅞	143	22	12	84	25	16	57	154	25	M6	13	1
40	120	⅞	173	26	15	99	26	26	69	174	45	M8	15	1 ¼
50	150	⅞	214	32	15	119	36	26	88	194	45	M8	19	1 ½
63	150	⅞	226	39	15	132	36	26	88	224	45	M8	23	2



SYGEF Standard
Diaphragm valve DIASTAR TenPlus
FC (Fail safe to close)
With backing flanges PP-V Inch ANSI

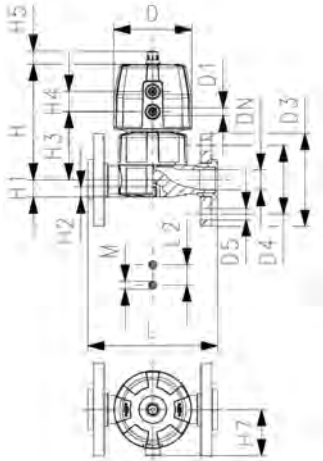
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **both sides**



Size (inch)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
1/2	15	125	185 687 732	1	1.281	185 687 752	1	1.281
3/4	20	271	185 687 733	1	1.491	185 687 753	1	1.491
1	25	481	185 687 734	1	2.398	185 687 754	1	2.410
1 1/4	32	759	185 687 735	1	3.961	185 687 755	1	3.961
1 1/2	40	1263	185 687 736	1	5.944	185 687 756	1	5.944
2	50	1728	185 687 737	1	7.277	185 687 757	1	7.277

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
1/2	96	3/8	95	60	16	127	14	12	68	25	16	57	130	25	M6
3/4	96	3/8	105	70	16	132	18	12	73	25	16	57	150	25	M6
1	120	3/8	115	79	16	167	22	12	93	26	26	69	160	25	M6
1 1/4	150	3/8	140	89	16	196	26	15	101	36	26	88	180	45	M8
1 1/2	180	3/8	150	98	16	239	32	15	124	37	26	103	200	45	M8
2	180	3/8	165	121	19	251	39	15	137	37	26	103	230	45	M8

Size (inch)	Lift = Hx (mm)
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23



SYGEF Standard
Diaphragm valve DIASTAR TenPlus
FC (Fail safe to close)
With backing flanges PP-V metric/BS

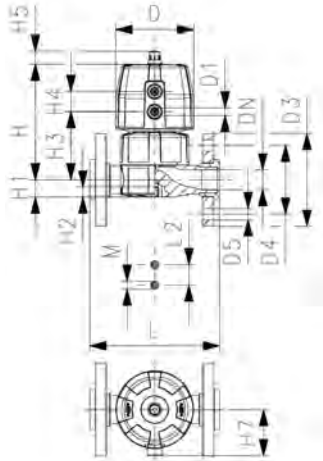
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **both sides**



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	125	185 687 132	1	1.281	185 687 152	1	1.281
25	20	271	185 687 133	1	1.491	185 687 153	1	1.491
32	25	481	185 687 134	1	2.410	185 687 154	1	2.410
40	32	759	185 687 135	1	3.961	185 687 155	1	3.961
50	40	1263	185 687 136	1	5.944	185 687 156	1	5.944
63	50	1728	185 687 137	1	7.277	185 687 157	1	7.277

d (mm)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
20	96	⅜	95	65	14	127	14	12	68	25	16	57	130	25	M6
25	96	⅜	105	75	14	132	18	12	73	25	16	57	150	25	M6
32	120	⅜	115	85	14	167	22	12	93	26	26	69	160	25	M6
40	150	⅜	140	100	18	196	26	15	101	36	26	88	180	45	M8
50	180	⅜	150	110	18	239	32	15	124	37	26	103	200	45	M8
63	180	⅜	165	125	18	251	39	15	137	37	26	103	230	45	M8

d (mm)	Lift = Hx (mm)	closest inch (inch)
20	7	⅓
25	10	⅜
32	13	1
40	15	1 ¼
50	19	1 ½
63	23	2



SYGEF Standard
Diaphragm valve DIASTAR TenPlus
FC (Fail safe to close)
With butt fusion spigots metric

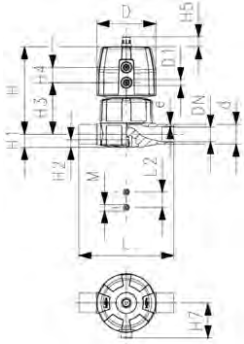
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

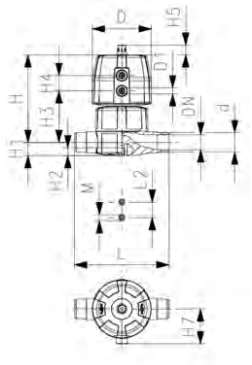
Working Pressure: **both sides**



d (mm)	DN (mm)	PN (psi)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	SP	Weight (kg)
20	15	150/150*	125	185 685 132	1	0.972
25	20	150/150*	271	185 685 133	1	1.209
32	25	150/150*	481	185 685 134	1	2.022
40	32	150/150*	759	185 685 135	1	3.350
50	40	150/150*	1263	185 685 136	1	5.289
63	50	150/150*	1728	185 685 137	1	6.151

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	96	⅜	127	14	12	68	25	16	57	124	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	120	⅜	167	22	12	93	26	26	69	154	25	M6	2.4	13
40	150	¼	196	26	15	101	36	26	88	174	45	M8	2.4	15
50	180	¼	239	32	15	124	37	26	103	194	45	M8	3.0	19
63	180	¼	251	39	15	137	37	26	103	224	45	M8	3.0	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



SYGEF Standard
Diaphragm valve DIASTAR TenPlus
FC (Fail safe to close)
With socket fusion spigots metric

Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

* PN: PTFE

Working Pressure: **both sides**

d	DN	PN	PN*	kv-value	PTFE/EPDM	SP	Weight
(mm)	(mm)	(psi)	(bar)	($\Delta p=1$ bar)	Code		(kg)
				(l/min)			
20	15	150/150*	10/10*	125	185 685 032	1	1.081
25	20	150/150*	10/10*	271	185 685 033	1	1.217
32	25	150/150*	10/10*	481	185 685 034	1	2.030
40	32	150/150*	10/10*	759	185 685 035	1	3.375
50	40	150/150*	10/10*	1263	185 685 036	1	5.334
63	50	150/150*	10/10*	1728	185 685 037	1	6.233

d	PTFE/FKM	SP	Weight
(mm)	Code		(kg)
20	185 685 052	1	1.081
25	185 685 053	1	1.217
32	185 685 054	1	2.030
40	185 685 055	1	3.375
50	185 685 056	1	5.334
63	185 685 057	1	6.233

d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	Lift = Hx	closest inch
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(inch)
20	96	⅜	127	14	12	68	25	16	57	124	25	M6	7	½
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	10	¾
32	120	⅜	167	22	12	93	26	26	69	154	25	M6	13	1
40	150	¼	196	26	15	101	36	26	88	174	45	M8	15	1 ¼
50	180	¼	239	32	15	124	37	26	103	194	45	M8	19	1 ½
63	180	¼	251	39	15	137	37	26	103	224	45	M8	23	2



SYGEF Standard
Diaphragm valve DIASTAR TenPlus
FC (Fail safe to close)
Unions with butt fusion spigots metric

Model:

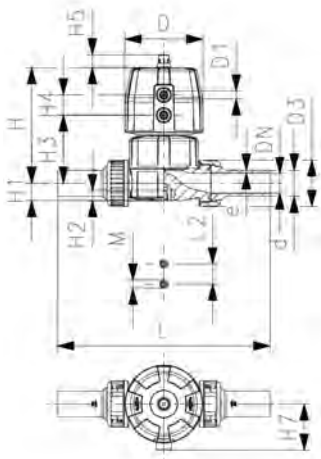
- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

* PN: PTFE

Working Pressure: **both sides**



d (mm)	DN (mm)	PN (psi)	PN* (bar)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	SP	Weight (kg)
20	15	150/150*	10/10*	125	185 684 132	1	1.185
25	20	150/150*	10/10*	271	185 684 133	1	1.386
32	25	150/150*	10/10*	481	185 684 134	1	2.537
40	32	150/150*	10/10*	759	185 684 135	1	3.735
50	40	150/150*	10/10*	1263	185 684 136	1	5.757
63	50	150/150*	10/10*	1728	185 684 137	1	6.991

d (mm)	PTFE/FKM Code	SP	Weight (kg)
20	185 684 152	1	1.185
25	185 684 153	1	1.386
32	185 684 154	1	2.537
40	185 684 155	1	3.735
50	185 684 156	1	5.757
63	185 684 157	1	6.991

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	96	¾	127	14	12	68	25	16	57	196	25	M6	1.9	7
25	96	¾	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	120	½	167	22	12	93	26	26	69	234	25	M6	2.4	13
40	150	¾	196	26	15	101	36	26	88	260	45	M8	2.4	15
50	180	¾	239	32	15	124	37	26	103	284	45	M8	3.0	19
63	180	¾	251	39	15	137	37	26	103	321	45	M8	3.0	23

d (mm)	closest inch (inch)
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2



SYGEF Standard
Diaphragm valve DIASTAR TenPlus
FC (Fail safe to close)
Unions with fusion sockets metric

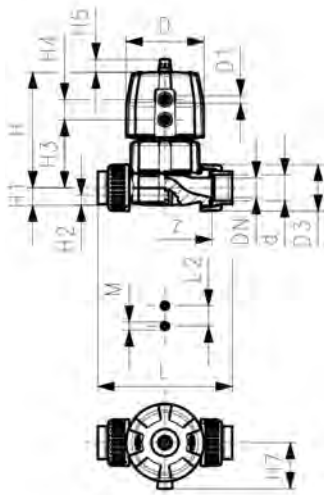
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **both sides**



d (mm)	DN (mm)	PN (psi)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	150/150*	125	185 684 032	1	0.957	185 684 052	1	1.147
25	20	150/150*	271	185 684 033	1	1.233	185 684 053	1	1.233
32	25	150/150*	481	185 684 034	1	2.184	185 684 054	1	2.184
40	32	150/150*	759	185 684 035	1	3.643	185 684 055	1	3.643
50	40	150/150*	1263	185 684 036	1	5.729	185 684 056	1	5.729
63	50	150/150*	1728	185 684 037	1	6.873	185 684 057	1	6.873

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
20	96	⅜	127	14	12	68	25	16	57	128	25	M6	100	7
25	96	⅜	132	18	12	73	25	16	57	150	25	M6	118	10
32	120	⅜	167	22	12	93	26	26	69	162	25	M6	126	13
40	150	⅜	196	26	15	101	36	26	88	184	45	M8	144	15
50	180	⅜	239	32	15	124	37	26	103	210	45	M8	164	19
63	180	⅜	251	39	15	137	37	26	103	248	45	M8	194	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
DA (Double acting)
Unions with butt fusion spigots metric

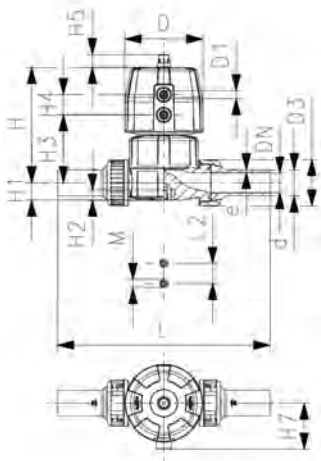
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	125	185 654 132	1	0.708	185 654 152	1	0.708
25	20	271	185 654 133	1	1.158	185 654 153	1	1.158
32	25	481	185 654 134	1	1.399	185 654 154	1	1.399
40	32	759	185 654 135	1	2.208	185 654 155	1	2.208
50	40	1263	185 654 136	1	3.454	185 654 156	1	3.454
63	50	1728	185 654 137	1	4.636	185 654 157	1	4.636

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	⅜	101	14	12	60	24	16	43	196	25	M6	2	7
25	96	⅜	132	18	12	73	25	16	57	221	25	M6	2	10
32	96	⅜	143	22	12	84	25	16	57	234	25	M6	2	13
40	120	⅜	173	26	15	99	26	26	69	260	45	M8	2	15
50	150	⅜	214	32	15	119	36	26	69	284	45	M8	3	19
63	150	⅜	226	39	15	132	36	26	69	321	45	M8	3	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
DA (Double acting)
Unions with fusion sockets metric

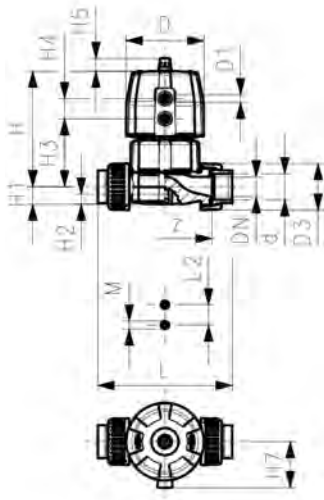
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

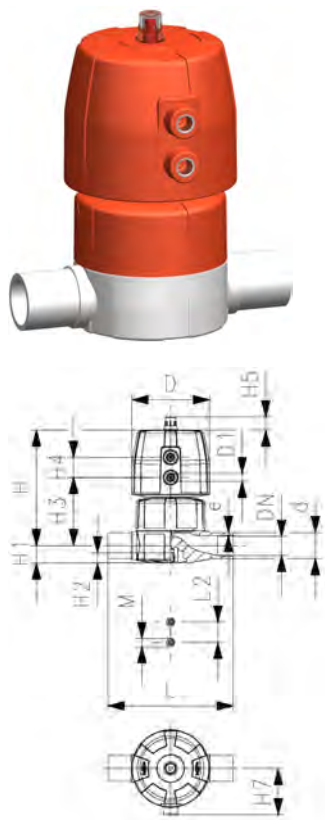
Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	125	185 654 032	1	0.565	185 654 052	1	0.565
25	20	271	185 654 033	1	1.116	185 654 053	1	1.116
32	25	481	185 654 034	1	1.328	185 654 054	1	1.355
40	32	759	185 654 035	1	2.116	185 654 055	1	2.116
50	40	1263	185 654 036	1	3.426	185 654 056	1	3.426
63	50	1728	185 654 037	1	4.518	185 654 057	1	4.518

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	128	25	M6	100	7
25	96	3/8	132	18	12	73	25	16	57	150	25	M6	118	10
32	96	1/2	143	22	12	84	25	16	57	162	25	M6	126	13
40	120	5/8	173	26	15	99	26	26	69	184	45	M8	144	15
50	150	3/4	214	32	15	119	36	26	88	210	45	M8	164	19
63	150	1/2	226	39	15	132	36	26	88	248	45	M8	194	23

d (mm)	closest inch (inch)
20	3/8
25	1/2
32	1
40	1 1/4
50	1 1/2
63	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
FO (Fail safe to open)
With butt fusion spigots metric

Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

Option:

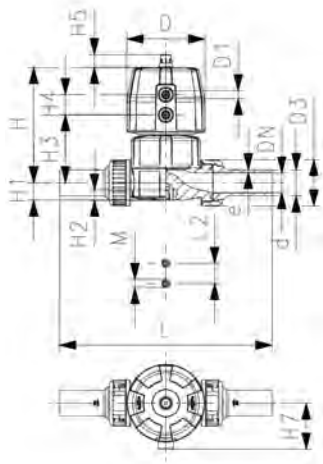
- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **one side**

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	10	125	185 645 132	1	0.619	185 645 152	1	0.619
25	20	10	271	185 645 133	1	1.017	185 645 153	1	1.017
32	25	10	481	185 645 134	1	1.223	185 645 154	1	1.223
40	32	10	759	185 645 135	1	1.883	185 645 155	1	1.883
50	40	10	1263	185 645 136	1	3.701	185 645 156	1	3.736
63	50	6	1728	185 645 137	1	4.546	185 645 157	1	4.546

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	2	7
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	2	10
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	2	13
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	2	15
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	3	19
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	3	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
FO (Fail safe to open)
Unions with butt fusion spigots metric

Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **one side**

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	10	125	185 644 132	1	0.724	185 644 152	1	0.600
25	20	10	271	185 644 133	1	1.194	185 644 153	1	1.194
32	25	10	481	185 644 134	1	1.429	185 644 154	1	1.429
40	32	10	759	185 644 135	1	2.268	185 644 155	1	2.268
50	40	10	1263	185 644 136	1	4.204	185 644 156	1	4.204
63	50	6	1728	185 644 137	1	5.386	185 644 157	1	5.386

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	196	25	M6	2	7
25	96	1/8	132	18	12	73	25	16	57	221	25	M6	2	10
32	96	1/8	143	22	12	84	25	16	57	234	25	M6	2	13
40	120	1/8	173	26	15	99	26	26	69	260	45	M8	2	15
50	150	1/4	214	32	15	119	36	26	69	284	45	M8	3	19
63	150	1/4	226	39	15	132	36	26	69	321	45	M8	3	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
FO (Fail safe to open)
Unions with fusion sockets metric

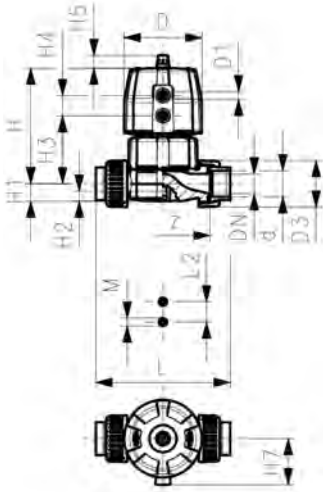
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PN (bar)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	125	10	185 644 032	1	0.686	185 644 052	1	0.686
25	20	271	10	185 644 033	1	1.152	185 644 053	1	1.152
32	25	481	10	185 644 034	1	1.385	185 644 054	1	1.385
40	32	759	10	185 644 035	1	2.176	185 644 055	1	2.176
50	40	1263	10	185 644 036	1	4.176	185 644 056	1	4.176
63	50	1728	6	185 644 037	1	5.268	185 644 057	1	5.268

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	128	25	M6	100	7
25	96	3/8	132	18	12	73	25	16	57	150	25	M6	118	10
32	96	1/2	143	22	12	84	25	16	57	162	25	M6	126	13
40	120	5/8	173	26	15	99	26	26	69	184	45	M8	144	15
50	150	3/4	214	32	15	119	36	26	88	210	45	M8	164	19
63	150	1/2	226	39	15	132	36	26	88	248	45	M8	194	23

d (mm)	closest inch (inch)
20	3/8
25	1/2
32	1
40	1 1/4
50	1 1/2
63	2



**SYGEF Standard
Diaphragm valve DIASTAR Ten
FC (Fail safe to close)
With butt fusion spigots metric**

Model:

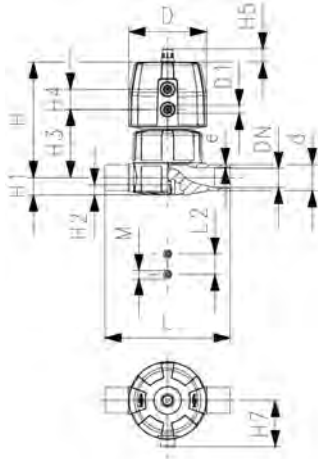
- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value (Δp=1 bar) (L/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	10/10*	125	185 625 132	1	0.541	185 625 152	1	0.541
25	20	10/10*	271	185 625 133	1	1.191	185 625 153	1	1.191
32	25	10/10*	481	185 625 134	1	1.403	185 625 154	1	1.403
40	32	10/10*	759	185 625 135	1	2.243	185 625 155	1	2.243
50	40	10/10*	1263	185 625 136	1	3.826	185 625 156	1	3.826
63	50	10/6*	1728	185 625 137	1	4.636	185 625 157	1	4.636

d (mm)	FKM Code
20	185 625 162
25	185 625 163
32	185 625 164
40	185 625 165
50	185 625 166
63	185 625 167

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	⅞	101	14	12	60	24	16	43	124	25	M6	2	7
25	96	⅞	132	18	12	73	25	16	57	144	25	M6	2	10
32	96	⅞	143	22	12	84	25	16	57	154	25	M6	2	13
40	120	⅞	173	26	15	99	26	26	69	174	45	M8	2	15
50	150	⅞	214	32	15	119	36	26	88	194	45	M8	3	19
63	150	⅞	226	39	15	132	36	26	88	224	45	M8	3	23

d (mm)	closest inch (inch)
20	⅜
25	⅝
32	1
40	1 ⅜
50	1 ½
63	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
FC (Fail safe to close)
With socket fusion spigots metric

Model:

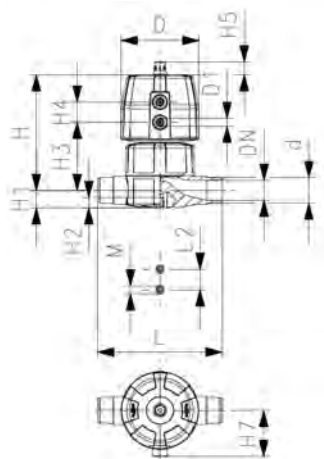
- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

* PN: PTFE

Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	SP Weight (kg)	PTFE/FKM Code	SP Weight (kg)
20	15	10/10*	125	185 625 032	1	185 625 052	1
25	20	10/10*	271	185 625 033	1	185 625 053	1
32	25	10/10*	481	185 625 034	1	185 625 054	1
40	32	10/10*	759	185 625 035	1	185 625 055	1
50	40	10/10*	1263	185 625 036	1	185 625 056	1
63	50	10/6*	1728	185 625 037	1	185 625 057	1

d (mm)	FKM Code
20	185 625 062
25	185 625 063
32	185 625 064
40	185 625 065
50	185 625 066
63	185 625 067

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)	closest inch (inch)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	7	1/2
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	10	3/4
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	13	1
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	15	1 1/4
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	19	1 1/2
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	23	2

Diaphragm valves pneumatic



SYGEF Standard
Diaphragm valve type DIASTAR 025
Function FC (Fail safe to close)
With fixed flanges PVDF Inch ANSI

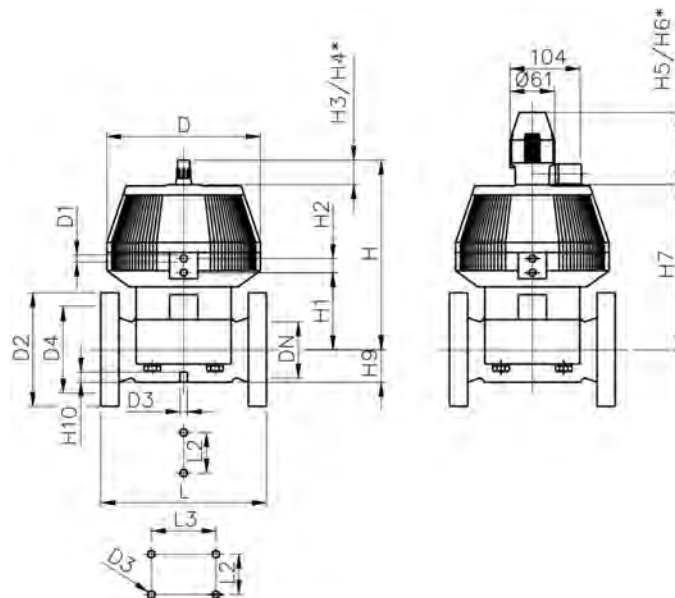
Model:

- Material: PVDF
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side
- * With backing flanges PP-V
- ** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)
*		2 ½	65	10	992	199 025 327	14.200
**	90	3	80	10	1700	199 025 358	18.948
		4	100	6	2700	199 025 329	26.500

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	190	395	176	24	46	100	129	195	349	69	20

	L	L2
	(mm)	(mm)
*	290	70
**	310	120
	350	120





SYGEF Standard
Diaphragm valve type DIASTAR 025
Function FC (Fail safe to close)
With fixed flanges PVDF metric

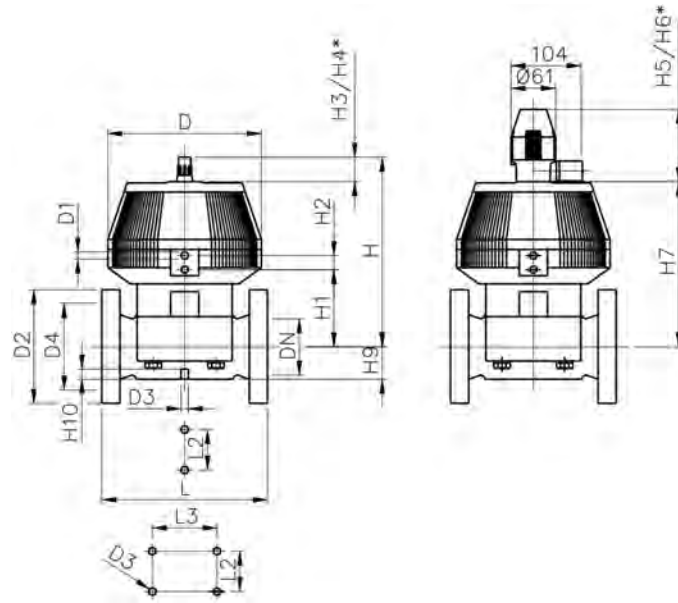
Model:

- Material: PVDF
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: on one side
- * With backing flanges PP-V
- ** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d	Size	DN	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
	(l/min)						
*	75	2 ½	65	10	992	199 025 357	13.600
**	90	3	80	10	1700	199 025 358	18.948
	110	4	100	6	2700	199 025 359	32.500

	d	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9
	(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	75	280	¼	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69

	d	H10	L	L2
	(mm)	(mm)	(mm)	(mm)
*	75	15	290	70
**	90	15	310	120
	110	20	350	120





SYGEF Standard
Diaphragm valve type DIASTAR 025
Function FO (Fail safe to open)
With fixed flanges PVDF metric

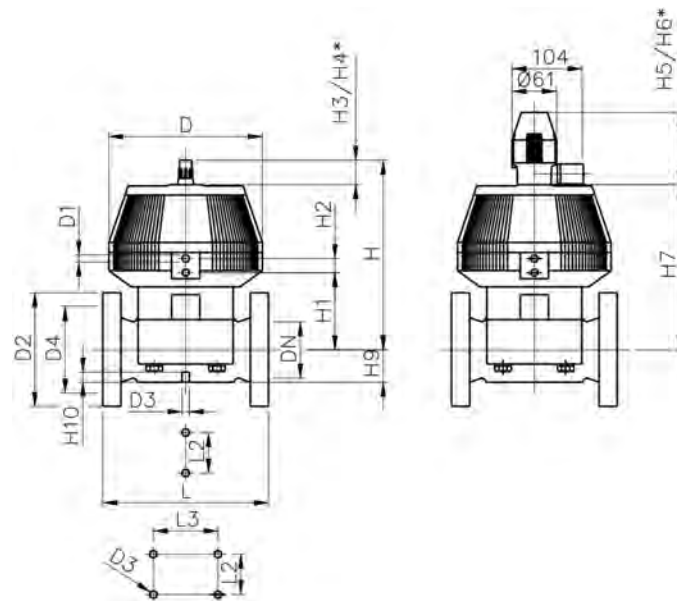
Model:

- Material: PVDF
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: on one side
- * With backing flanges PP-V
- ** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
*	75	65	2 ½	10	992	199 025 367	13.600
**	90	80	3	10	1700	199 025 368	17.400
	110	100	4	6	2700	199 025 369	24.700
**	160	150	6	6	6033	199 025 370	19.000

	d (mm)	D (mm)	D1_G (inch)	D2 (mm)	D3[M] (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	H7 (mm)	H9 (mm)
*	75	280	¼	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69
**	160	335	¼	285	12	240	455	237	24	46	100	129	195	409	108

	d (mm)	H10 (mm)	L (mm)	L2 (mm)	L3 (mm)
*	75	15	290	70	
**	90	15	310	120	
	110	20	350	120	
**	160	20	480	100	200





SYGEF Standard
Diaphragm valve type DIASTAR 025
Function FO (Fail safe to open)
With fixed flanges PVDF Inch ANSI

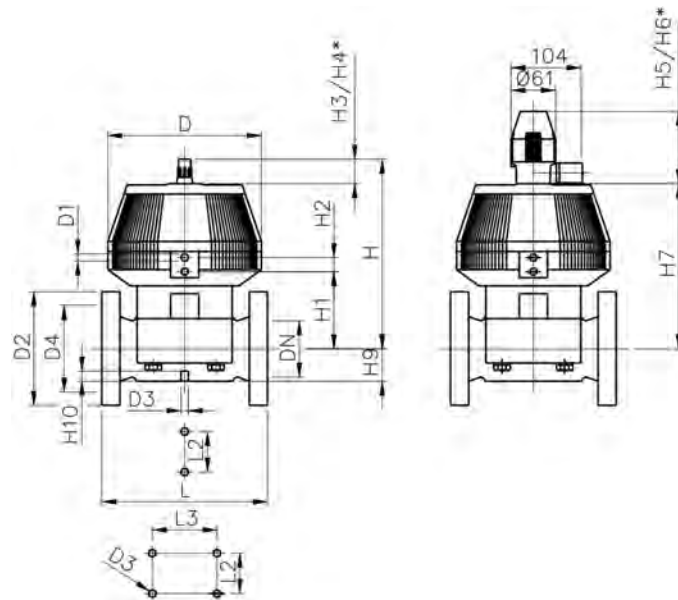
Model:

- Material: PVDF
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side
- * With backing flanges PP-V
- ** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)
*		2 ½	65	10	992	199 025 337	12.200
**	90	3	80	10	1700	199 025 368	17.400
		4	100	6	2700	199 025 339	23.400
**	160	6	150	6	6033	199 025 370	19.000

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20
**	335	¼	285	12	240	455	237	24	46	100	129	195	409	108	20

	L	L2	L3
	(mm)	(mm)	(mm)
*	290	70	
**	310	120	
	350	120	
**	480	100	200





SYGEF Standard
Diaphragm valve type DIASTAR 025
Function DA (Double acting)
With fixed flanges PVDF metric

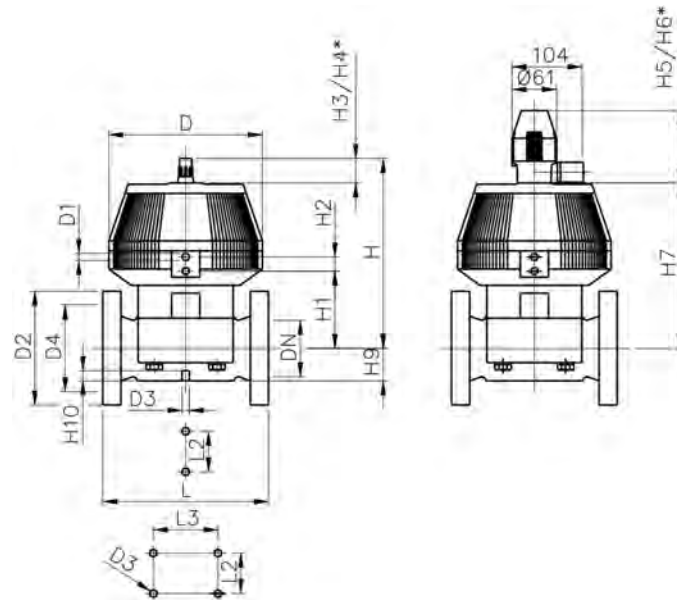
Model:

- Material: PVDF
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: on one side
- * With backing flanges PP-V
- ** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
*	75	65	2 ½	10	992	199 025 377	13.600
**	90	80	3	10	1700	199 025 378	17.400
	110	100	4	6	2700	199 025 379	25.534
**	160	150	6	6	6033	199 025 380	35.000

	d (mm)	D (mm)	D1_G (inch)	D2 (mm)	D3[M] (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	H7 (mm)	H9 (mm)
*	75	280	¼	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69
**	160	335	¼	285	12	240	455	237	24	46	100	129	195	409	108

	d (mm)	H10 (mm)	L (mm)	L2 (mm)	L3 (mm)
*	75	15	290	70	
**	90	15	310	120	
	110	20	350	120	
**	160	20	480	100	200





SYGEF Standard
Diaphragm valve type DIASTAR 025
Function DA (Double acting)
With fixed flanges PVDF Inch ANSI

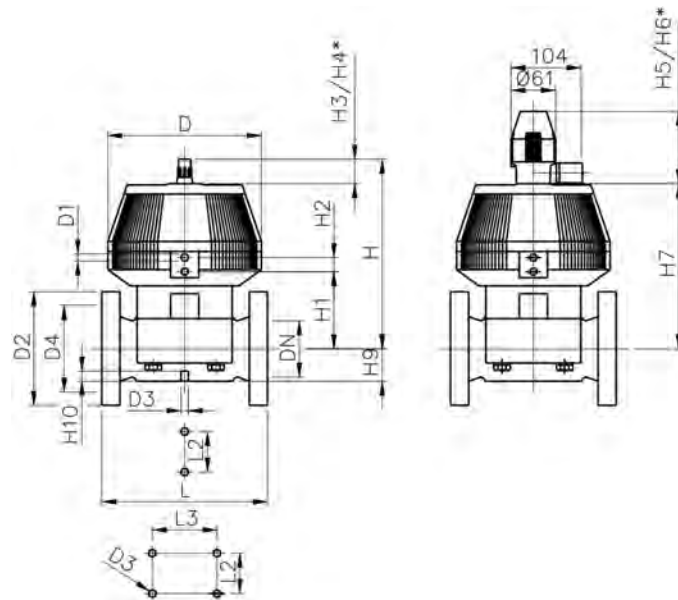
Model:

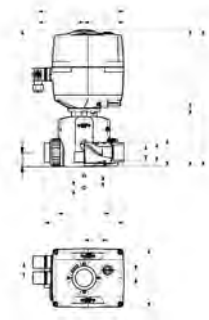
- Material: PVDF
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side
- * With backing flanges PP-V
- ** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)
*		2 ½	65	10	992	199 025 347	13.000
**	90	3	80	10	1700	199 025 378	17.400
		4	100	6	2700	199 025 349	24.100
**	160	6	150	6	6033	199 025 380	35.000

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20
**	335	¼	285	12	240	455	237	24	46	100	129	195	409	108	20

	L	L2	L3
	(mm)	(mm)	(mm)
*	290	70	
**	310	120	
	350	120	
**	480	100	200





e-DIASTAR Type 514 SYGEF 24V
With fusion sockets metric

Model:

- Voltage 24V AC/DC
- Multiturn Actuator
- Heating element, position feedback (Open/Close)
- Integrated manual emergency override
- Integrated stainless steel mounting inserts
- Material: PVDF

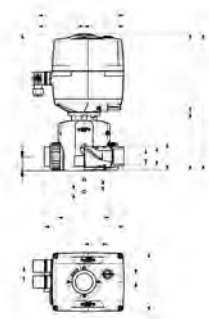
Option:

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d (mm)	DN (mm)	PN (bar)	PTFE/FKM Code	Weight (kg)	PTFE/EPDM Code	Weight (kg)
32	25	10	185 704 054	3.872	185 704 034	3.872
63	50	6	185 704 057	7.251	185 704 037	7.251

kv-value ($\Delta p=1$ bar) (l/min)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)	L9 (mm)	H (mm)
442	109	60	166	180	25	122	33	97	83	16	49	190	286
1575	168	100	266	180	45	122	33	97	83	16	49		341

H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	z (mm)	M
30	20	256	121	165	122	M6
53	29	289	176	165	190	M8



e-DIASTAR Type 514 SYGEF 100-230V
With fusion sockets metric

Model:

- Voltage 100-230V, 50-60Hz
- Multiturn Actuator
- Heating element, position feedback (Open/Close)
- Integrated manual emergency override
- Integrated stainless steel mounting inserts
- Material: PVDF

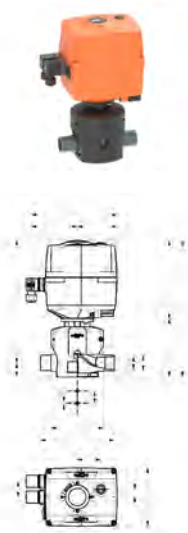
Option:

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d (mm)	DN (mm)	PN (bar)	PTFE/FKM Code	Weight (kg)	PTFE/EPDM Code	Weight (kg)
32	25	10	185 714 054	3.872	185 714 034	3.872
63	50	6	185 714 057	7.251	185 714 037	7.251

kv-value ($\Delta p=1$ bar) (l/min)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)	L9 (mm)	H (mm)
442	109	60	166	180	25	122	33	97	83	16	49	190	286
1575	168	100	266	180	45	122	33	97	83	16	49		341

H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	z (mm)	M
30	20	256	121	165	122	M6
53	29	289	176	165	190	M8



e-DIASTAR Type 515 SYGEF 24V
With socket fusion spigots metric

Model:

- Voltage 24V AC/DC
- Multiturn Actuator
- Heating element, position feedback (Open/Close)
- Integrated manual emergency override
- Integrated stainless steel mounting inserts
- Material: PVDF

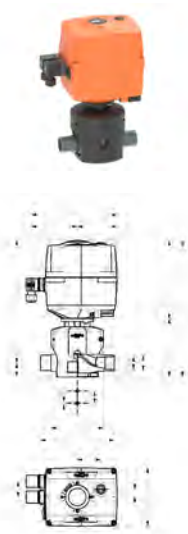
Option:

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d (mm)	DN (mm)	PN (bar)	PTFE/FKM Code	Weight (kg)	PTFE/EPDM Code	Weight (kg)
32	25	10	185 705 054	3.718	185 705 034	3.718
63	50	6	185 705 057	6.611	185 705 037	6.611

kv-value ($\Delta p=1$ bar) (l/min)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)	L9 (mm)	H (mm)	H1 (mm)
442	109	154	180	25	122	33	97	83	16	49	190	286	30
1575	168	223	180	45	122	33	97	83	16	49		341	53

H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	M
20	256	121	165	M6
29	289	176	165	M8



e-DIASTAR Type 515 SYGEF 100-230V
With socket fusion spigots metric

Model:

- Voltage 100-230V, 50-60Hz
- Multiturn Actuator
- Heating element, position feedback (Open/Close)
- Integrated manual emergency override
- Integrated stainless steel mounting inserts
- Material: PVDF

Option:

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d (mm)	DN (mm)	PN (bar)	PTFE/FKM Code	Weight (kg)	PTFE/EPDM Code	Weight (kg)
32	25	10	185 715 054	3.718	185 715 034	3.718
63	50	6	185 715 057	6.611	185 715 037	6.611

kv-value ($\Delta p=1$ bar) (l/min)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)	L9 (mm)	H (mm)
442	109		154	180	25	122	33	97	83	16	49	190	286
1575	168	100	223	180	45	122	33	97	83	16	49		341

H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	M
30	20	256	121	165	M6
53	29	289	176	165	M8

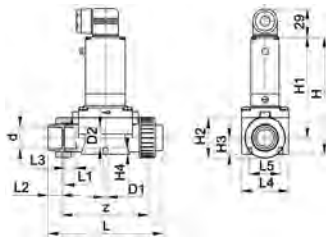
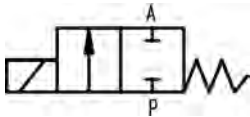
Solenoid valve



Solenoid valve type 165 Straight-through valve 2/2 ways 230V 50Hz/60Hz

Model:

- Function A, PN 0.5-6bar
- Material PVDF: with fusion socket metric
- Material PVC-U: with solvent cement socket metric
- Protection class IP 65
- Electrical connection: cable plug
- With manual override



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (L/min)	PVC-U EPDM Code	PVC-U FKM Code	PVDF EPDM Code	PVDF FKM Code
20	15	83	199 165 012	199 165 002		
25	20	100	199 165 013	199 165 003		
32	25	233	199 165 014	199 165 004		
40	32	267	199 165 015	199 165 005		
50	40	500	199 165 016	199 165 006		
63	50	600	199 165 017	199 165 007		
20	15	83			199 165 412	199 165 402
25	20	100			199 165 413	199 165 403
32	25	233			199 165 414	199 165 404
40	32	500			199 165 415	199 165 405
50	40	500			199 165 416	199 165 406
63	50	600			199 165 417	199 165 407

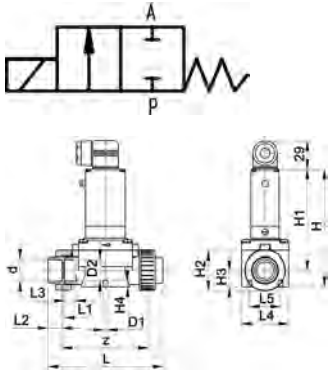
d (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	z (mm)
20	148	122	53	22	8	148	110	16	63	40	116
25	148	122	53	22	8	154	110	19	62	40	116
32	175	137	76	31	15	190	141	22	85	45	147
40	175	137	76	31	15	198	141	26	85	45	147
50	212	160	105	42	15	254	192	31	115	45	198
63	212	160	105	42	15	268	192	38	115	45	198
20	148	122	53	22	8	147	109	16	63	40	120
25	148	122	53	22	8	151	109	18	62	40	120
32	175	137	76	31	15	185	139	20	85	45	150
40	175	137	76	31	15	189	139	22	85	45	150
50	212	160	105	42	15	245	189	25	115	45	200
63	212	160	105	42	15	253	189	29	115	45	200



Solenoid valve type 165
Straight-through valve 2/2 ways
115V 50Hz/60Hz

Model:

- Function A, PN 0.5-6bar
- Material PVDF: with fusion socket metric
- Material PVC-U: with solvent cement socket metric
- Protection class IP 65
- Electrical connection: cable plug
- With manual override



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (L/min)	PVC-U EPDM Code	PVC-U FKM Code	PVDF EPDM Code	PVDF FKM Code
20	15	83	199 165 042	199 165 032		
25	20	100	199 165 043	199 165 033		
32	25	233	199 165 044	199 165 034		
40	32	267	199 165 045	199 165 035		
50	40	500	199 165 046	199 165 036		
63	50	600	199 165 047	199 165 037		
20	15	83			199 165 442	199 165 432
25	20	100			199 165 443	199 165 433
32	25	233			199 165 444	199 165 434
40	32	267			199 165 445	199 165 435
50	40	500			199 165 446	199 165 436
63	50	600			199 165 447	199 165 437

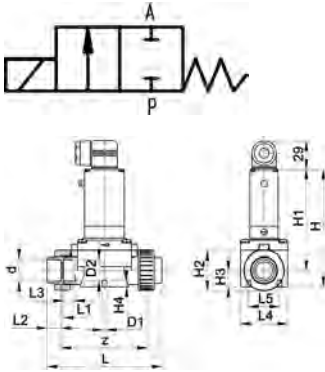
d (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	z (mm)
20	148	122	53	22	8	148	110	16	63	40	116
25	148	122	53	22	8	154	110	19	62	40	116
32	175	137	76	31	15	190	141	22	85	45	147
40	175	137	76	31	15	198	141	26	85	45	147
50	212	160	105	42	15	254	192	31	115	45	198
63	212	160	105	42	15	268	192	38	115	45	198
20	148	122	53	22	8	147	109	16	63	40	120
25	148	122	53	22	8	151	109	18	62	40	120
32	175	137	76	31	15	185	139	20	85	45	150
40	175	137	76	31	15	189	139	22	85	45	150
50	212	160	105	42	15	245	189	25	115	45	200
63	212	160	105	42	15	253	189	29	115	45	200



Solenoid valve type 165
Straight-through valve 2/2 ways
24V DC

Model:

- Function A, PN 0.5-6bar
- Material PVDF: with fusion socket metric
- Material PVC-U: with solvent cement socket metric
- Protection class IP 65
- Electrical connection: cable plug
- With manual override



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (L/min)	PVC-U EPDM Code	PVC-U FKM Code	PVDF EPDM Code	PVDF FKM Code
20	15	83	199 165 022	199 165 072		
25	20	100	199 165 023	199 165 073		
32	25	233	199 165 024	199 165 074		
40	32	267	199 165 025	199 165 075		
50	40	500	199 165 026	199 165 076		
63	50	600	199 165 027	199 165 077		
20	15	83			199 165 422	199 165 452
25	20	100			199 165 423	199 165 453
32	25	233			199 165 424	199 165 454
40	32	267			199 165 425	199 165 455
50	40	500			199 165 426	199 165 456
63	50	600			199 165 427	199 165 457

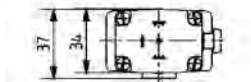
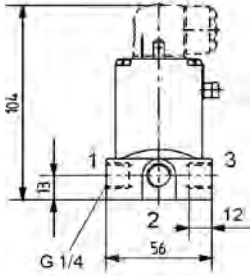
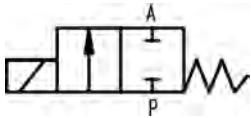
d (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	z (mm)
20	148	122	53	22	8	148	110	16	63	40	116
25	148	122	53	22	8	154	110	19	62	40	116
32	175	137	76	31	15	190	141	22	85	45	147
40	175	137	76	31	15	198	141	26	85	45	147
50	212	160	105	42	15	254	192	31	115	45	198
63	212	160	105	42	15	268	192	38	115	45	198
20	148	122	53	22	8	147	109	16	63	40	120
25	148	122	53	22	8	151	109	18	62	40	120
32	175	137	76	31	15	185	139	20	85	45	150
40	175	137	76	31	15	189	139	22	85	45	150
50	212	160	105	42	15	245	189	25	115	45	200
63	212	160	105	42	15	253	189	29	115	45	200



Solenoid valve type 166
Straight-through valve 2/2 ways

Model:

- Material: PVDF, PP-H
- Function A
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



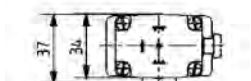
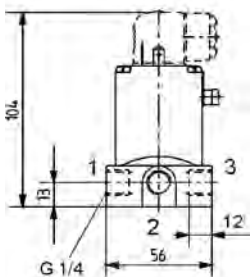
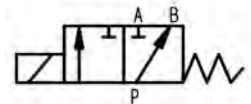
DN (mm)	D1_G (inch)	Voltage	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	PP-H EPDM Code	PP-H FKM Code	PVDF FKM Code
3	1/4	24V DC	0.0 - 8.0	4	199 166 000	199 166 005	199 166 505
4	1/4	24V DC	0.0 - 4.0	5	199 166 001	199 166 006	199 166 506
5	1/4	24V DC	0.0 - 3.0	6	199 166 002	199 166 007	199 166 507
3	1/4	230V 50Hz \pm 10%	0.0 - 10.0	4	199 166 010	199 166 015	199 166 515
4	1/4	230V 50Hz \pm 10%	0.0 - 5.0	5	199 166 011	199 166 016	199 166 516
5	1/4	230V 50Hz \pm 10%	0.0 - 4.5	6	199 166 012	199 166 017	199 166 517



Solenoid valve type 166
Distribution valve 3/2 ways

Model:

- Material: PP-H
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



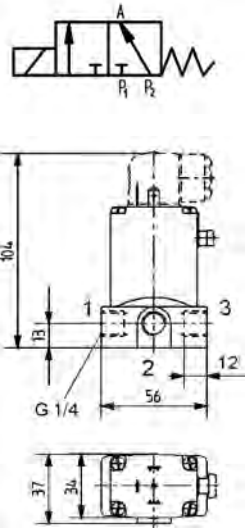
DN (mm)	D1_G (inch)	Voltage	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	Function	EPDM Code	FKM Code
4	1/4	24V AC/DC	0 - 4	5	F	199 166 201	199 166 206
4	1/4	24V AC/DC	0 - 5	5	F	199 166 211	199 166 216



Solenoid valve type 166
Mixing valve 3/2 ways

Model:

- Material: PVDF, PP-H
- Function E
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



DN (mm)	D1_G (inch)	Voltage	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PP-H EPDM Code	PP-H FKM Code	PVDF FKM Code
3	1/4	24V AC/DC	0 - 4	4	199 166 150	199 166 155	
3	1/4	230V 50Hz \pm 10%	0 - 6	4	199 166 160	199 166 165	
4	1/4	24V AC/DC	0 - 2	5	199 166 151	199 166 156	199 166 656
4	1/4	230V 50Hz \pm 10%	0 - 3	5	199 166 161	199 166 166	199 166 666

AQUATAP



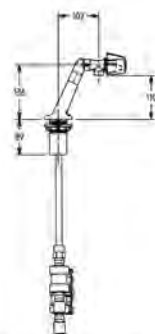
Type 530 AquaTap Recirculating Laboratory Faucet Made of SYGEF PVDF with 5/8" PFA Tubing and Flare Connections

- The faucet is made from high purity PVDF
- Mounting hole diameter 2" - 2 1/8"
- Must buy Inline Flow Diverters (IFDs) along with faucet for proper flow and performance
- Includes two isolation ball valves, Type 546 PP-H d20mm, that connect to flared tubing
- Can substitute PVDF Type 546 ball valves for additional fee

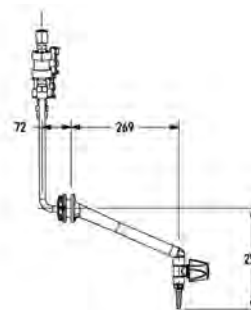
	description	Code
	Deck Mount Hose Barb	175 530 101
	Wall Mount to Ceiling Hose Barb	175 530 102
	Wall Mount to Floor Hose Barb	175 530 103
	Deck Mount Dual Head	175 530 104
	Deck Mount Short Version Female 3/8" NPT	175 530 105
	Wall Mount Short to Ceiling	175 530 106
	Wall Mount with Hose Barb to Floor Short	175 530 107
	Wall Mount with Hose Barb to Mounting Elevation	175 530 118



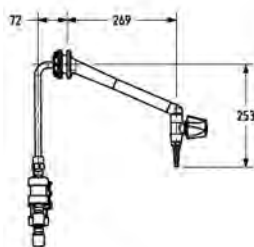
Deck mount with hose barb



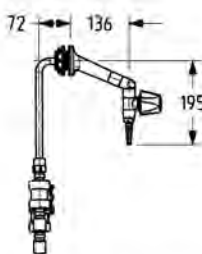
Short deck mount with loose hose barb



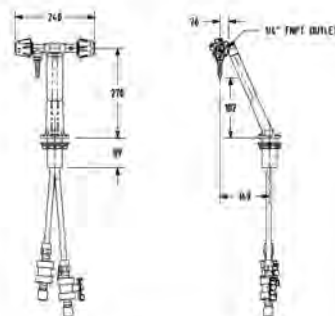
Wall mount to ceiling



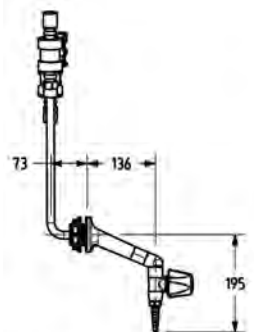
Wall mount to floor



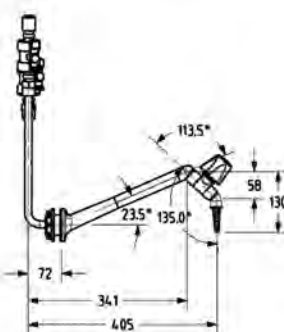
Wall mount to floor short



Deck mount dual head



Wall mount to ceiling short



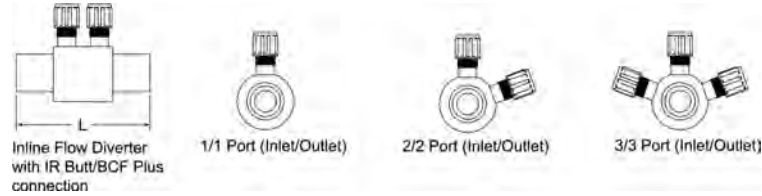
Wall mount with hose barb at mounting level



PROGEF Standard PP Inline Flow Diverter IR Plus Fusion

- Shipped with nuts and tube blankoffs
- Other dimension available upon request
- ПРИМЕЧАНИЕ: устройство отклонения потока предназначено для использования в сочетании с краном GF AquaTap и не продается отдельно

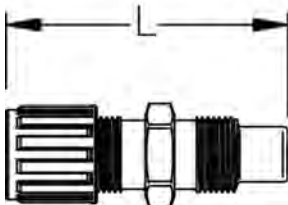
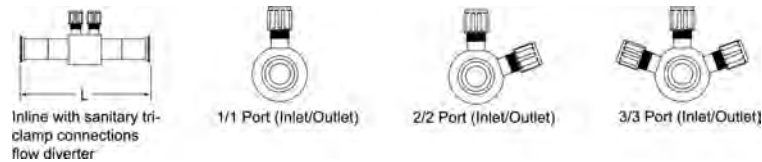
d (mm)	L (mm)	Ports 1/1 Code	Ports 2/2 Code	Ports 3/3 Code
25	180	167 530 123		
32	180	167 530 124	167 530 144	167 530 164
40	180	167 530 125	167 530 145	167 530 165
50	180	167 530 126	167 530 146	167 530 166
63	180	167 530 127	167 530 147	167 530 167
75	180	167 530 128	167 530 148	167 530 168



PROGEF Standard PP Inline Flow Diverter Sanitary Tri-Clamp

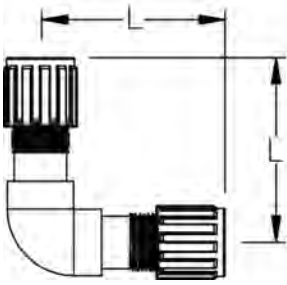
- Shipped with nuts and tube blankoffs
- ПРИМЕЧАНИЕ: устройство отклонения потока предназначено для использования в сочетании с краном GF AquaTap и не продается отдельно

### (inch)	L (mm)	Ports 1/1 Code	Ports 2/2 Code	Ports 3/3 Code
1 1/2	294	167 530 225	167 530 245	167 530 265
2	316	167 530 226	167 530 246	167 530 266
2 1/2	314	167 530 227	167 530 247	167 530 267



Straight Coupler, Flare Adapter

Size	L (mm)	PVDF Code	Weight (lb)
5/8" Flare Adapters	75	175 530 011	0.093



90° Elbow, Flare Adapter

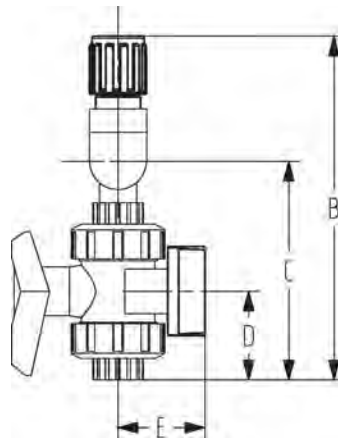
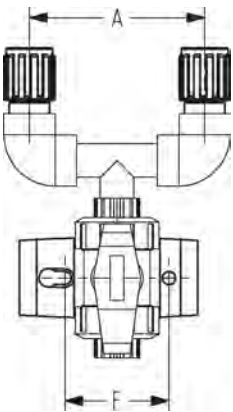
Size	PVDF Code	L (mm)
5/8" Flare Adapters	175 530 012	85



Point of Use (POU) Tee Valve

- Must buy Inline Flow Diverters (IFDs) along with faucet for proper flow and performance

EPDM Code	FKM Code	Size	A (inch)	B (inch)	C (inch)	D (inch)	E (inch)	F (inch)
157 320 001	157 321 001	1/2" FNPT x 5/8" Tube Flare	104.2	184.2	117.3	47.6	46.6	70.0



5/8" Compression Fittings

description	PVDF Code	Natural PP Code
5/8" Tube x 5/8" Tube Straight Coupler	175 530 013	168 530 013
5/8" Tube x 5/8" Tube 90 Elbow	175 530 014	168 530 014
5/8" Tube x 1/2" Tube MNPT Tee	175 530 015	168 530 015
5/8" Tube x 1/2" Tube NPT Male Adapter	175 530 016	168 530 016
5/8" Tube x 1/2" Tube NPT Female Adapter	175 530 017	168 530 017

Flexible 5/8" Tubing

- Трубы PFA поставляются связками длиной 100 футов
- PE comes in 100 ft. bundles.

description	Material	Code
5/8" OD x 0.062" wall thickness Tubing (Plain)	PFA	178 530 001
5/8" OD x 0.062" wall thickness Tubing (Plain)	PE	193 530 001

Accessories

	description	Code
90 Bend Tube Protector		150 530 002
Tube Clip		150 530 003
5/8" Flare Nut		175 530 010
5/8" Tube Blankoff		193 530 010
Faucet Isolation Clamp		150 530 001
ADA Handle		150 530 202
Aerator Outlet		150 530 204
Barb Outlet		150 530 203
3/4" Sanitary Adapter Outlet (0.985" flange connection)		150 530 205

SYGEF Plus



SYGEF Plus – System Specification

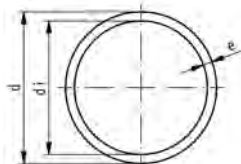
Material	High Purity Polyvinylidene fluoride (PVDF HP)
Colour	Virgin material, opaque
Density	~1.78 g/cm ³ (ISO 1183 / ASTM D 792)
Surface tension	30–35 mJ/m ²
Thermal expansion coefficient	0.12–0.18 mm/mK (DIN 53752)
E-modulus	≥1700 N/mm ² (EN ISO 527 / ASTM D 790)
Thermal conductivity	0.19 W/mK (EN12664)
Surface resistivity	5 x 10 ¹⁴ Ωcm (IEC 60093)
Dimension	d20 (½")–d450 (18") in accordance to ISO 10931
Pressure rating	Pipes/fittings: PN16 (d20–d315), PN10 (d90–d450) Valves: separate specification
Temperature rating	From –20 °C to +140 °C (-4 °F to +284 °F)
Production	Fittings/diaphragm valves: injection moulded Pipes: extruded Produced under clean room ISO 14644-1 Class 7 (U.S. Fed. Std. 209E Class 10'000) conditions. Subsequent assembling, quality inspection and cleaning is carried out using 18 MΩ pure water under clean room ISO 14644-1 Class 5-6 (U.S. Fed. Std. 209E Class 100-1000) conditions.
Surface finish compliant to Semi F57	Inner surface (PN10/SDR33): ≤d225 Ra ≤0.2µm (8µin) / >d225 Ra ≤0.3µm (12µin) / ≥d280 Ra ≤0.4µm (16µin) / ≥d355 Ra ≤0.65µm (26µin) for injection moulded and extruded components
Marking	All components are embossed with a permanent identification during the production process to ensure full traceability. Lot No Material Dimension Pressure Rating
Testing and inspection (ISO 10931)	Inclusions Visual inspection Surface finish Dimension tolerance Pressure testing Periodic leachout per SEMI F40/F57
Approvals/conformance	DIBt ASME BPE FDA CFR 21 177.2510 USP 25 class VI (physiological non-toxic) SEMI F57 FM-4910 listing
Welding technology	BCF Plus, bead and crevice free fusion, size d20 (½")–d110 (4") IR Plus, infrared fusion (DVS 2207-6), size d20 (½")–d450 (18")
Documentation*	Certificate of Conformance with FDA, USP EN 10204 2.2 EN 10204 3.1
Packing	Pipes capped and each component double bagged in an specified inner bag and an outer bag under clean room ISO 14644-1 Class 6 (U.S. Fed. Std. 209E Class 1000) conditions.
Labeling	Brand Name Product Description Code Number Material Dimension
Main applications	Uses include delivery of ultrapure water in the semiconductor/electronic industry, pharmaceutical grade purified water (WFI/PW) and analytical DI water to highest purity requirements. A wide range of sanitisation methods is suitable such as Ozone, hot water or steam.

* On request

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SYGEF Plus Valves	308

SYGEF Plus Pipes

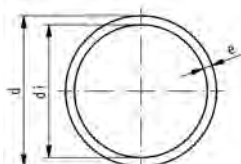


SYGEF Plus pipe SDR33/PN10

Model:

- Material: PVDF-HP
- Length: 5 m units

d (mm)	PN (bar)	FM	Code	Weight (kg/m)	e (mm)	di (mm)
90	10	BCF, IR	175 481 665	1.480	2.8	84.4
110	10	BCF, IR	175 481 666	2.200	3.4	103.2
125	10	IR	175 481 667	2.840	3.9	117.2
140	10	IR	175 481 673	3.520	4.3	131.4
160	10	IR	175 481 668	4.540	4.9	150.2
200	10	IR	175 481 669	7.190	6.2	187.6
225	10	IR	175 481 670	8.950	6.9	211.2
250	10	IR	175 481 671	11.100	7.7	234.6
280	10	IR	175 481 656	13.900	8.6	262.8
315	10	IR	175 481 674	17.600	9.7	295.6
355	10	IR	175 481 657	20.960	10.9	333.2
400	10	IR	175 481 658	26.650	12.3	375.4
450	10	IR	175 481 659	33.640	13.8	422.4



SYGEF Plus pipe SDR21/PN16

Model:

- Material: PVDF-HP
- Length: 5 m units

d (mm)	PN (bar)	FM	Code	Weight (kg/m)	e (mm)	di (mm)
16	16	SF	175 481 202	0.171	1.9	12.2
20	16	BCF, IR	175 481 203	0.210	1.9	16.2
25	16	BCF, IR	175 481 204	0.269	1.9	21.2
32	16	BCF, IR	175 481 205	0.435	2.4	27.2
40	16	BCF, IR	175 481 206	0.563	2.4	35.2
50	16	BCF, IR	175 481 207	0.850	3.0	44.0
63	16	BCF, IR	175 481 208	1.090	3.0	57.0
75	16	BCF, IR	175 481 209	1.550	3.6	67.8
90	16	BCF, IR	175 481 210	2.230	4.3	81.4
110	16	BCF, IR	175 481 211	3.330	5.3	99.4
140	16	IR	175 481 213	5.312	6.7	126.6
160	16	IR	175 481 214	6.961	7.7	144.6
200	16	IR	175 481 216	10.862	9.6	180.8
225	16	IR	175 481 217	13.700	10.8	202.6
250	16	IR	175 481 218	17.150	11.9	226.2
280	16	IR	175 481 219	21.660	13.4	253.2
315	16	IR	175 481 220	27.220	15.0	285.0

SYGEF Plus Fittings

Butt fusion fittings

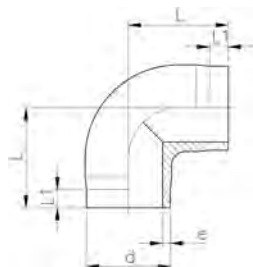
SYGEF Plus elbow 90° SDR21/PN16



Model:

- Material: PVDF-HP

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
20	16	BCF, IR	735 108 631	0.018	1.9	38	25
25	16	BCF, IR	735 108 632	0.025	1.9	42	26
32	16	BCF, IR	735 108 633	0.043	2.4	46	26
40	16	BCF, IR	735 108 634	0.062	2.4	51	28
50	16	BCF, IR	735 108 635	0.110	3.0	58	28
63	16	BCF, IR	735 108 636	0.189	3.0	66	28



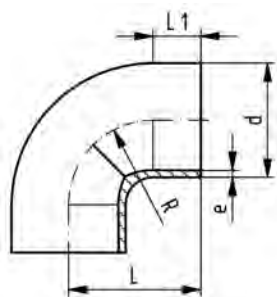
SYGEF Plus bend 90° SDR21/PN16



Model:

- Material: PVDF-HP

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)	R (mm)
20	16	BCF, IR	735 018 731	0.016	1.9	38	23	15
25	16	BCF, IR	735 018 732	0.023	1.9	42	23	19
32	16	BCF, IR	735 018 733	0.039	2.4	46	22	24
40	16	BCF, IR	735 018 734	0.055	2.4	51	21	30
50	16	BCF, IR	735 018 735	0.096	3.0	58	21	37
63	16	BCF, IR	735 018 736	0.139	3.0	66	21	45
75	16	BCF, IR	735 018 737	0.270	3.6	75	23	62
90	16	BCF, IR	735 018 738	0.427	4.3	90	23	77
110	16	BCF, IR	735 018 739	0.709	5.3	110	23	98
140	16	IR	735 018 741	1.549	6.7	140	33	121
160	16	IR	735 018 742	2.193	7.7	160	33	141
200	16	IR	735 018 744	3.850	9.6	200	33	181
225	16	IR	735 018 745	5.620	10.8	220	33	200
250	16	IR	735 018 746	6.536	11.9	254	48	232
280	16	IR	735 018 747	9.182	13.4	283	48	262
315	16	IR	735 018 748	13.031	15.0	321	48	297

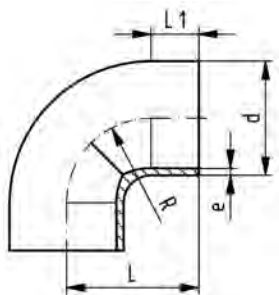




SYGEF Plus bend 90° SDR33/PN10

Model:

- Material: PVDF-HP



d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)	R (mm)
90	10	BCF, IR	735 018 538	0.330	2.8	90	23	77
110	10	BCF, IR	735 018 539	0.580	3.4	110	23	98
125	10	IR	735 018 540	0.781	3.9	125	28	112
140	10	IR	735 018 541	1.109	4.3	140	33	121
160	10	IR	735 018 542	1.684	4.9	160	33	141
200	10	IR	735 018 544	3.032	6.2	200	33	181
225	10	IR	735 018 545	4.013	6.9	220	33	200
250	10	IR	735 018 546	4.304	7.7	254	48	232
280	10	IR	735 018 547	6.370	8.6	283	48	262
315	10	IR	735 018 548	9.032	9.7	321	48	297



SYGEF Plus elbow 45° SDR21/PN16

Model:

- Material: PVDF-HP



d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
20	16	BCF, IR	735 158 631	0.015	1.9	32	25
25	16	BCF, IR	735 158 632	0.019	1.9	34	26
32	16	BCF, IR	735 158 633	0.033	2.4	36	26
40	16	BCF, IR	735 158 634	0.048	2.4	39	28
50	16	BCF, IR	735 158 635	0.077	3.0	42	30
63	16	BCF, IR	735 158 636	0.111	3.0	47	31
75	16	BCF, IR	735 158 637	0.198	3.6	49	32
90	16	BCF, IR	735 158 638	0.279	4.3	57	37
110	16	BCF, IR	735 158 639	0.506	5.3	70	46
140	16	IR	735 158 641	1.095	6.7	88	57
160	16	IR	735 158 642	1.605	7.7	100	62
200	16	IR	735 158 644	3.018	9.6	124	77
225	16	IR	735 158 645	4.324	10.8	140	88

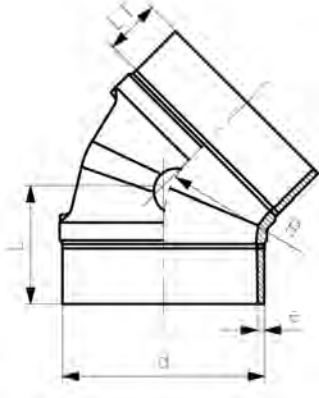


SYGEF Plus bend 45° SDR21/PN16

Model:

- Material: PVDF-HP

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)	R (mm)
250	16	IR	735 158 646	3.669	11.9	120	47	232
280	16	IR	735 158 647	5.099	13.4	133	47	262
315	16	IR	735 158 648	7.162	15.0	147	47	297



SYGEF Plus elbow 45° SDR33/PN10

Model:

- Material: PVDF-HP

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
90	10	BCF, IR	735 158 538	0.195	2.8	57	37
110	10	BCF, IR	735 158 539	0.348	3.4	70	46
125	10	IR	735 158 540	0.490	3.9	79	51
140	10	IR	735 158 541	0.720	4.3	88	57
160	10	IR	735 158 542	1.047	4.9	100	62
200	10	IR	735 158 544	1.990	6.2	124	77
225	10	IR	735 158 545	2.732	6.9	140	88



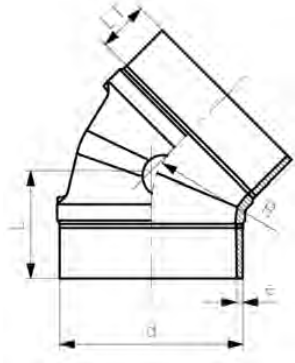


SYGEF Plus bend 45° SDR33/PN10

Model:

- Material: PVDF-HP

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)	R (mm)
250	10	IR	735 158 546	2.402	7.7	120	47	232
280	10	IR	735 158 547	3.518	8.6	133	47	262
315	10	IR	735 158 548	4.923	9.7	147	47	297

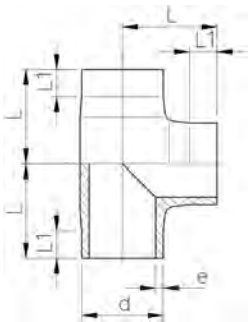


SYGEF Plus tee 90° equal SDR21/PN16

Model:

- Material: PVDF-HP

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
20	16	BCF, IR	735 208 631	0.025	1.9	38	25
25	16	BCF, IR	735 208 632	0.034	1.9	42	27
32	16	BCF, IR	735 208 633	0.059	2.4	46	27
40	16	BCF, IR	735 208 634	0.086	2.4	51	28
50	16	BCF, IR	735 208 635	0.146	3.0	58	28
63	16	BCF, IR	735 208 636	0.254	3.0	66	28
75	16	BCF, IR	735 208 637	0.336	3.6	75	32
90	16	BCF, IR	735 208 638	0.587	4.3	90	39
110	16	BCF, IR	735 208 639	1.076	5.3	110	48
140	16	IR	735 208 641	2.384	6.7	140	62
160	16	IR	735 208 642	3.143	7.7	160	71
200	16	IR	735 208 644	6.845	9.6	200	80
225	16	IR	735 208 645	9.755	10.8	220	86
250	16	IR	735 208 646	10.823	11.9	223	70
280	16	IR	735 208 647	16.061	13.4	256	74
315	16	IR	735 208 648	21.422	15.0	274	74



SYGEF Plus tee 90° equal SDR33/PN10



Model:

- Material: PVDF-HP



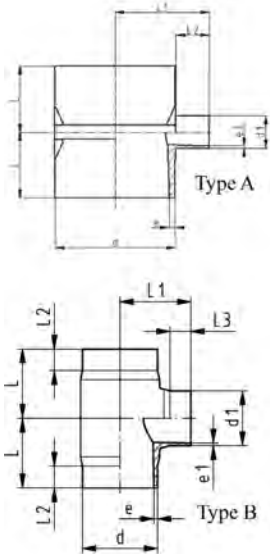
d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
90	10	BCF, IR	735 208 538	0.433	2.8	90	39
110	10	BCF, IR	735 208 539	0.766	3.4	110	48
125	10	IR	735 208 540	1.280	3.9	125	56
140	10	IR	735 208 541	1.554	4.3	140	62
160	10	IR	735 208 542	2.294	4.9	160	71
200	10	IR	735 208 544	5.047	6.2	200	80
225	10	IR	735 208 545	6.854	6.9	220	86
250	10	IR	735 208 546	6.939	7.7	223	70
280	10	IR	735 208 547	10.475	8.6	256	74
315	10	IR	735 208 548	13.882	9.7	274	74

SYGEF Plus tee 90° reduced SDR21/PN16



Model:

- Material: PVDF-HP



	d - d1 (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
A	63 - 20	16	BCF, IR	735 208 956	0.250	3.0	1.9	60	67	25	35
A	63 - 25	16	BCF, IR	735 208 957	0.245	3.0	1.9	60	66	25	34
A	63 - 32	16	BCF, IR	735 208 958	0.257	3.0	2.4	60	67	25	25
A	63 - 40	16	BCF, IR	735 208 959	0.254	3.0	2.4	60	66	25	26
A	75 - 20	16	BCF, IR	735 208 961	0.348	3.6	1.9	65	69	25	31
A	75 - 25	16	BCF, IR	735 208 962	0.356	3.6	1.9	65	72	25	34
A	75 - 32	16	BCF, IR	735 208 963	0.308	3.6	2.4	65	69	25	31
A	75 - 40	16	BCF, IR	735 208 964	0.312	3.6	2.4	65	72	25	26
A	75 - 50	16	BCF, IR	735 208 965	0.372	3.6	3.0	65	69	25	26
A	90 - 20	16	BCF, IR	735 208 967	0.470	4.3	1.9	65	76	25	31
A	90 - 25	16	BCF, IR	735 208 968	0.466	4.3	1.9	65	79	25	34
A	90 - 32	16	BCF, IR	735 208 969	0.405	4.3	2.4	65	76	25	31
A	90 - 40	16	BCF, IR	735 208 970	0.476	4.3	2.4	65	79	25	26
A	90 - 50	16	BCF, IR	735 208 971	0.452	4.3	3.0	65	76	25	26
B	90 - 63	16	BCF, IR	735 208 972	0.611	4.3	3.0	80	85	25	25
A	110 - 20	16	BCF, IR	735 208 974	0.641	5.3	1.9	65	86	25	31
A	110 - 25	16	BCF, IR	735 208 975	0.570	5.3	1.9	65	89	25	34
A	110 - 32	16	BCF, IR	735 208 976	0.570	5.3	2.4	65	86	25	31
A	110 - 40	16	BCF, IR	735 208 977	0.640	5.3	2.4	65	89	25	26
A	110 - 50	16	BCF, IR	735 208 978	0.640	5.3	3.0	65	86	25	26
B	110 - 63	16	BCF, IR	735 208 979	0.925	5.3	3.0	90	95	30	25
B	110 - 75	16	BCF, IR	735 208 980	0.950	5.3	3.0	90	95	30	25
B	110 - 90	16	BCF, IR	735 208 981	0.959	5.3	4.3	90	95	30	25
B	160 - 90	16	IR	735 208 687	2.902	7.7	4.3	155	130	60	25
B	160 - 110	16	IR	735 208 686	3.078	7.7	5.3	155	130	60	25
B	225 - 90	16	IR	735 208 695	5.423	10.8	4.3	155	160	60	25
B	225 - 110	16	IR	735 208 694	5.460	10.8	5.3	155	160	60	25

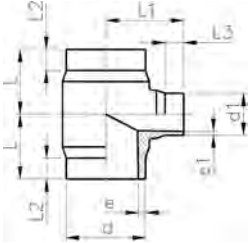
SYGEF Plus tee 90° reduced SDR33/PN10



Model:

- Material: PVDF-HP

d - d1 (mm)	PN (bar)	SDR	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
160 - 90	10	33 - 21	IR	735 208 587	2.257	4.9	4.3	155	130	60	25
160 - 110	10	33 - 21	IR	735 208 586	2.330	4.9	5.3	155	130	60	25
225 - 90	10	33 - 21	IR	735 208 595	4.275	6.9	4.3	155	160	60	25
225 - 110	10	33 - 21	IR	735 208 594	4.586	6.9	5.3	155	160	60	25
225 - 160	10	33 - 33	IR	735 208 593	4.452	6.9	4.9	155	170	60	35



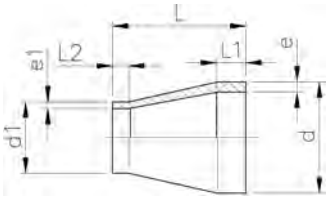
SYGEF Plus reducer SDR21/PN16



Model:

- Material: PVDF-HP

d - d1 (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)
25 - 20	16	BCF, IR	735 908 600	0.013	1.9	1.9	50	22	22
32 - 20	16	BCF, IR	735 908 602	0.018	2.4	1.9	50	22	22
32 - 25	16	BCF, IR	735 908 601	0.019	2.4	1.9	50	22	22
40 - 20	16	BCF, IR	735 908 605	0.025	2.4	1.9	58	22	24
40 - 25	16	BCF, IR	735 908 604	0.025	2.4	1.9	55	22	24
40 - 32	16	BCF, IR	735 908 603	0.029	2.4	2.4	55	22	24
50 - 25	16	BCF, IR	735 908 608	0.040	3.0	1.9	60	22	25
50 - 32	16	BCF, IR	735 908 607	0.044	3.0	2.4	60	22	25
50 - 40	16	BCF, IR	735 908 606	0.046	3.0	2.4	60	22	25
63 - 32	16	BCF, IR	735 908 611	0.059	3.0	2.4	65	22	25
63 - 40	16	BCF, IR	735 908 610	0.061	3.0	2.4	65	22	25
63 - 50	16	BCF, IR	735 908 609	0.070	3.0	3.0	65	22	25
75 - 40	16	BCF, IR	735 908 614	0.109	3.6	2.4	68	24	25
75 - 50	16	BCF, IR	735 908 613	0.091	3.6	3.0	65	24	25
75 - 63	16	BCF, IR	735 908 612	0.095	3.6	3.0	65	24	25
90 - 63	16	BCF, IR	735 908 616	0.164	4.3	3.0	75	25	30
90 - 75	16	BCF, IR	735 908 615	0.187	4.3	3.6	75	25	35
110 - 63	16	BCF, IR	735 908 619	0.239	5.3	3.0	90	30	30
110 - 75	16	BCF, IR	735 908 618	0.249	5.3	3.6	90	30	35
110 - 90	16	BCF, IR	735 908 617	0.266	5.3	4.3	90	30	35
140 - 110	16	IR	735 908 621	0.614	6.7	5.3	110	40	40
160 - 110	16	IR	735 908 623	0.706	7.7	5.3	120	40	40
160 - 140	16	IR	735 908 622	0.899	7.7	6.7	120	40	40
200 - 160	16	IR	735 908 624	1.474	9.6	7.7	145	40	35
225 - 110	16	IR	735 908 625	1.630	10.8	5.3	160	55	40
225 - 160	16	IR	735 908 626	1.762	10.8	7.7	160	55	28
225 - 200	16	IR	735 908 627	2.142	10.8	9.6	160	55	50



SYGEF Plus reducer SDR21/PN16



Typ A



Typ B

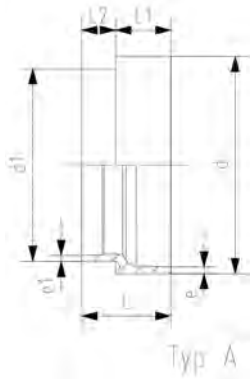
Model:

- Material: PVDF-HP

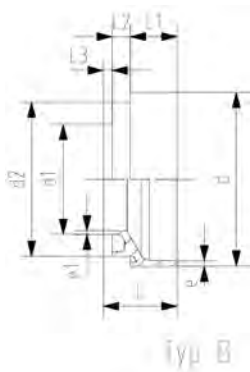
Note:

for Typ B, clamping for welding spigot d1 needs to be done on diameter d2

d - d1 (mm)	PN (bar)	FM	Code	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Type	d2 (mm)
250 - 160	16	IR	735 908 628	11.9	7.7	100	42	33	10	B	225
250 - 225	16	IR	735 908 629	11.9	10.8	90	42	33		A	
280 - 160	16	IR	735 908 630	13.4	7.7	100	50	33	10	B	225
280 - 225	16	IR	735 908 631	13.4	10.8	90	50	33		A	
315 - 160	16	IR	735 908 632	15.0	7.7	115	50	33	10	B	225
315 - 225	16	IR	735 908 633	15.0	10.8	105	50	33		A	



Typ A



Typ B

SYGEF Plus reducer SDR33/PN10



Model:

- Material: PVDF-HP

d - d1 (mm)	PN (bar)	SDR	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)
90 - 63	10	33 - 21	BCF, IR	735 908 511	0.149	2.8	3.0	75	25	30
110 - 63	10	33 - 21	BCF, IR	735 908 513	0.176	3.4	3.0	90	30	30
110 - 90	10	33 - 33	BCF, IR	735 908 515	0.179	3.4	2.8	90	30	35
125 - 110	10	33 - 21	IR	735 908 500	0.406	3.9	5.3	100	35	40
140 - 110	10	33 - 21	IR	735 908 502	0.418	4.3	5.3	110	40	40
140 - 125	10	33 - 33	IR	735 908 501	0.439	4.3	3.9	110	40	40
160 - 110	10	33 - 33	IR	735 908 521	0.550	4.9	3.4	120	40	40
160 - 110	10	33 - 21	IR	735 908 504	0.539	4.9	5.3	120	40	40
160 - 140	10	33 - 33	IR	735 908 503	0.634	4.9	4.3	120	40	40
200 - 160	10	33 - 33	IR	735 908 505	0.883	6.2	4.9	145	50	40

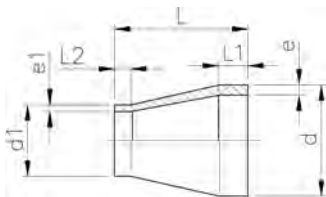
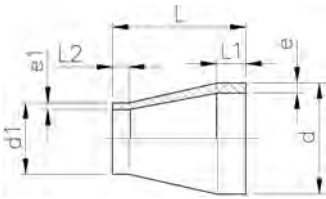


table continued on the next page



d - d1 (mm)	PN (bar)	SDR	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)
225 - 110	10	33 - 33	IR	735 908 526	1.314	6.9	3.4	160	55	35
225 - 110	10	33 - 21	IR	735 908 506	1.373	6.9	5.3	160	55	35
225 - 160	10	33 - 33	IR	735 908 507	1.181	6.9	4.9	160	55	40
225 - 200	10	33 - 33	IR	735 908 508	1.304	6.9	6.2	160	55	50

SYGEF Plus reducer PN10

Model:

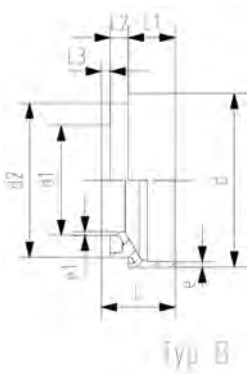
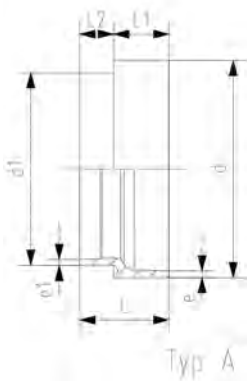
- Material: PVDF-HP

Note:

for Typ B, clamping for welding spigot d1 needs to be done on diameter d2



d - d1 (mm)	PN (bar)	SDR	FM	Code	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Type	d2 (mm)
250 - 160	10	33 - 33	IR	735 908 522	7.7	4.9	100	42	33	10	B	225
250 - 160	10	33 - 21	IR	735 908 542	7.7	7.7	100	42	33	10	B	225
250 - 225	10	33 - 33	IR	735 908 524	7.7	6.9	90	42	33		A	
250 - 225	10	33 - 21	IR	735 908 544	7.7	10.8	90	42	33		A	
280 - 160	10	33 - 33	IR	735 908 525	8.6	4.9	100	50	33	10	B	225
280 - 160	10	33 - 21	IR	735 908 545	8.6	7.7	100	50	33	10	B	225
280 - 225	10	33 - 33	IR	735 908 527	8.6	6.9	90	50	33		A	
280 - 225	10	33 - 21	IR	735 908 547	8.6	10.8	90	50	33		A	
315 - 160	10	33 - 33	IR	735 908 528	9.7	4.9	115	50	33	10	B	225
315 - 160	10	33 - 21	IR	735 908 548	9.7	7.7	115	50	33	10	B	225
315 - 225	10	33 - 33	IR	735 908 530	9.7	6.9	105	50	33		A	
315 - 225	10	33 - 21	IR	735 908 550	9.7	10.8	105	50	33		A	



SYGEF Plus flush style reducer SDR21/PN16



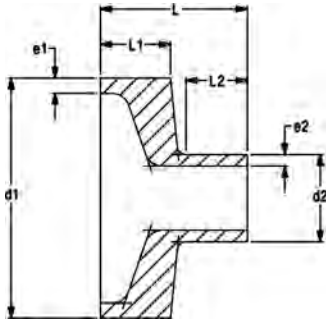
Model:

- Material: PVDF-HP
- Machined version; longer spigots possible on request

Note:

d1=110: not IR-315 A compatible, please request longer spigots
d40-20 to d110-90 also weldable on IR110

*Clamping on IR machine for welding both spigots, need to be done on d1



	d1 (mm)	d2 (mm)	PN (bar)	d1 FM	d2 FM	Code	Weight (kg)	e1 (mm)	e2 (mm)	L (mm)	L1 (mm)	L2 (mm)
*	40	20	16	IR63	-	735 909 104	0.030	2.4	1.9	30	22	8
*	40	25	16	IR63	-	735 909 105	0.026	2.4	1.9	30	22	8
*	40	32	16	IR63	-	735 909 106	0.024	2.4	2.4	31	22	9
*	50	20	16	IR63	-	735 909 107	0.045	3.0	1.9	30	22	8
*	50	25	16	IR63	-	735 909 108	0.043	3.0	1.9	30	22	8
*	50	32	16	IR63	-	735 909 109	0.043	3.0	2.4	31	22	9
*	50	40	16	IR63	-	735 909 110	0.035	3.0	2.4	31	22	9
*	63	20	16	IR63	-	735 909 111	0.069	3.0	1.9	30	22	8
*	63	25	16	IR63	-	735 909 112	0.067	3.0	1.9	30	22	8
*	63	32	16	IR63	-	735 909 113	0.066	3.0	2.4	31	22	9
*	63	40	16	IR63	-	735 909 114	0.061	3.0	2.4	31	22	9
*	63	50	16	IR63	-	735 909 115	0.055	3.0	3	33	22	11
	75	20	16	IR225	IR63	735 909 116	0.110	3.6	1.9	61	23	35
	75	25	16	IR225	IR63	735 909 117	0.108	3.6	1.9	61	23	35
	75	32	16	IR225	IR63	735 909 118	0.106	3.6	2.4	62	23	35
	75	40	16	IR225	IR63	735 909 119	0.103	3.6	2.4	62	23	35
	75	50	16	IR225	IR63	735 909 120	0.105	3.6	3	63	23	35
*	75	63	16	IR225	-	735 909 121	0.074	3.6	3	34	23	11
	90	20	16	IR225	IR63	735 909 122	0.163	4.3	1.9	61	23	35
	90	25	16	IR225	IR63	735 909 123	0.160	4.3	1.9	61	23	35
	90	32	16	IR225	IR63	735 909 124	0.159	4.3	2.4	62	23	35
	90	40	16	IR225	IR63	735 909 125	0.152	4.3	2.4	62	23	35
	90	50	16	IR225	IR63	735 909 126	0.152	4.3	3	63	23	35
*	90	63	16	IR225	-	735 909 127	0.125	4.3	3	34	23	11
*	90	75	16	IR225	-	735 909 128	0.112	4.3	3.6	36	23	13
	110	25	16	IR225	IR63	735 909 130	0.252	5.3	1.9	61	23	35
	110	20	16	IR225	IR63	735 909 129	0.255	5.3	1.9	61	23	35
	110	32	16	IR225	IR63	735 909 131	0.251	5.3	2.4	62	23	35
	110	40	16	IR225	IR63	735 909 132	0.244	5.3	2.4	62	23	35
	110	50	16	IR225	IR63	735 909 133	0.238	5.3	3	63	23	35
*	110	63	16	IR225	-	735 909 134	0.206	5.3	3	34	23	11
*	110	75	16	IR225	-	735 909 135	0.192	5.3	3.6	36	23	13
*	110	90	16	IR225	-	735 909 136	0.169	5.3	4.3	37	23	14
*	280	250	16	IR315	-	735 909 195	2.228	13.4	11.9	77	57	20
*	315	250	16	IR315	-	735 909 205	3.872	15.0	11.9	88	68	20

SYGEF Plus flush style reducer SDR33/PN10

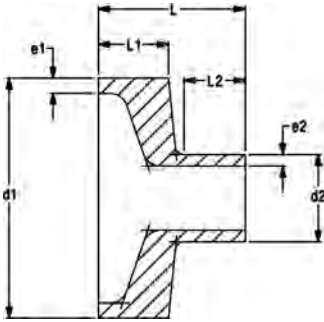


Model:

- Material: PVDF-HP
- Machined version; longer spigots possible on request

Note:

*Clamping on IR machine for welding both spigots, need to be done on d1



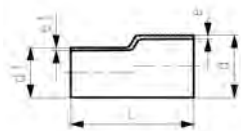
	d1 (mm)	d2 (mm)	PN (bar)	d1 FM	d2 FM	Code	Weight (kg)	e1 (mm)	e2 (mm)	L (mm)	L1 (mm)	L2 (mm)
*	160	63	10 - 16	IR225	-	735 909 356	0.747	4.9	3	44	33	11
*	160	75	10 - 16	IR225	-	735 909 357	0.725	4.9	3.6	46	33	13
*	160	90	10 - 16	IR225	-	735 909 358	0.690	4.9	4.3	47	33	14
*	160	110	10 - 16	IR225	-	735 909 359	0.688	4.9	5.3	50	33	17
*	200	63	10 - 16	IR225	-	735 909 362	1.231	6.2	3	45	33	12
*	200	75	10 - 16	IR225	-	735 909 363	1.209	6.2	3.6	46	33	13
*	200	90	10 - 16	IR225	-	735 909 364	1.174	6.2	4.3	47	33	14
*	200	110	10 - 16	IR225	-	735 909 365	1.124	6.2	5.3	50	33	17
*	200	160	10 - 10	IR225	-	735 909 768	0.896	6.2	4.9	48	33	15
*	225	63	10 - 16	IR225	-	735 909 369	1.525	6.9	3	46	34	12
*	225	75	10 - 16	IR225	-	735 909 370	1.566	6.9	3.6	48	35	13
*	225	90	10 - 16	IR225	-	735 909 371	1.586	6.9	4.3	50	36	14
*	225	110	10 - 16	IR225	-	735 909 372	1.531	6.9	5.3	53	36	17
*	225	160	10 - 10	IR225	-	735 909 775	1.109	6.9	4.9	48	33	15
*	225	200	10 - 10	IR225	-	735 909 776	0.984	6.9	6.2	51	33	18
	250	63	10 - 16	IR315	IR225	735 909 377	2.100	7.7	3	85	42	43
	250	75	10 - 16	IR315	IR225	735 909 378	2.152	7.7	3.6	86	43	43
	250	90	10 - 16	IR315	IR225	735 909 379	2.182	7.7	4.3	87	44	43
	250	110	10 - 16	IR315	IR225	735 909 380	2.180	7.7	5.3	88	45	43
	250	160	10 - 10	IR315	IR225	735 909 783	1.484	7.7	4.9	82	39	43
	250	200	10 - 10	IR315	IR225	735 909 784	1.380	7.7	6.2	82	39	43
	250	225	10 - 10	IR315	IR225	735 909 785	1.171	7.7	6.9	82	39	43
	315	63	10 - 16	IR315	IR225	735 909 396	4.248	9.7	3	100	47	38
	315	75	10 - 16	IR315	IR225	735 909 397	4.065	9.7	3.6	100	47	38
	315	90	10 - 16	IR315	IR225	735 909 398	4.129	9.7	4.3	103	48	40
	315	110	10 - 16	IR315	IR225	735 909 399	4.267	9.7	5.3	107	50	42
	315	160	10 - 10	IR315	IR225	735 909 802	3.173	9.7	4.9	103	47	41
	315	200	10 - 10	IR315	IR225	735 909 803	2.813	9.7	6.2	106	48	43
	315	225	10 - 10	IR315	IR225	735 909 804	2.587	9.7	6.9	106	47	44
*	315	250	10 - 10	IR315	-	735 909 805	2.707	9.7	7.7	77	54	23

SYGEF Plus reducing bush eccentric PN16

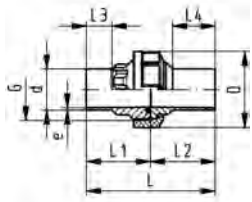


Model:

- Material: PVDF-HP



d - d1 (mm)	FM	Code	GP	Weight (kg)	e (mm)	e1 (mm)	L (mm)
25 - 20	BCF, IR	735 938 737	30	0.020	1.9	1.9	80
32 - 20	BCF, IR	735 938 742	25	0.027	2.4	1.9	80
32 - 25	BCF, IR	735 938 741	25	0.030	2.4	1.9	80
40 - 20	BCF, IR	735 938 748	15	0.051	2.4	1.9	100
40 - 25	BCF, IR	735 938 747	15	0.043	2.4	1.9	100
40 - 32	BCF, IR	735 938 746	20	0.050	2.4	2.4	100
50 - 32	BCF, IR	735 938 753	20	0.068	3.0	2.4	100
50 - 40	BCF, IR	735 938 752	15	0.074	3.0	2.4	100
63 - 32	BCF, IR	735 938 760	15	0.084	3.0	2.4	100
63 - 40	BCF, IR	735 938 759	15	0.106	3.0	2.4	100
63 - 50	BCF, IR	735 938 758	15	0.097	3.0	3.0	100



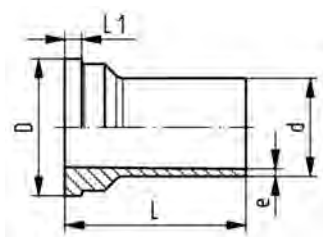
SYGEF Plus union (FKM white) SDR21/PN16

Model:

- Material: PVDF-HP
- gap filling O-ring positioning
- FDA compliant
- d75, d90 and d110 with buttress shaped thread
- Please see installation instruction

d (mm)	PN (bar)	FM	Code	Weight (kg)
20	16	BCF, IR	735 528 626	0.082
25	16	BCF, IR	735 528 627	0.123
32	16	BCF, IR	735 528 628	0.166
40	16	BCF, IR	735 528 629	0.263
50	16	BCF, IR	735 528 630	0.372
63	16	BCF, IR	735 528 631	0.463
75	16	BCF, IR	735 528 637	0.740
90	16	BCF, IR	735 528 638	0.798
110	16	BCF, IR	735 528 639	1.020

d (mm)	G (R/Rp BS draad) (inch)	e (mm)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)
20	1	1.9	43	106	53	53	25	37
25	1 1/4	1.9	53	112	56	56	25	38
32	1 1/2	2.4	60	118	59	59	25	40
40	2	2.4	74	124	62	62	25	41
50	2 1/4	3.0	82	130	65	65	25	43
63	2 3/4	3.0	100	136	68	68	25	44
75	S 107.5 x 3.6	3.6	133	132	66	66	24	34
90	S 107.5 x 3.6	4.3	133	130	65	65	24	48
110	S 127.5 x 3.6	5.3	155	130	65	65	25	45

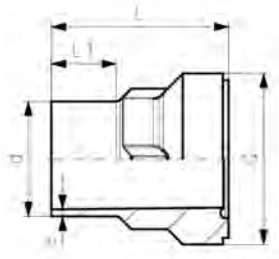


SYGEF Plus union end PN16

Model:

- Suitable for vortex sensor
- Material: PVDF-HP
- Suitable for SYGEF Plus union butt fusion
- Suitable for diaphragm valves type 314 and 514

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)	D (mm)
20	16	BCF, IR	735 608 626	0.020	1.9	53	5	30
25	16	BCF, IR	735 608 627	0.031	1.9	56	5	39
32	16	BCF, IR	735 608 628	0.044	2.4	59	6	45
40	16	BCF, IR	735 608 629	0.069	2.4	62	6	57
50	16	BCF, IR	735 608 630	0.083	3.0	65	7	63
63	16	BCF, IR	735 608 631	0.130	3.0	68	8	78
75	16	BCF, IR	735 608 637	0.194	3.6	66	9	101
90	16	BCF, IR	735 608 638	0.189	4.3	65	9	101
110	16	BCF, IR	735 608 639	0.264	5.3	65	10	121

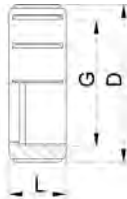


SYGEF Plus union bush PN16

Model:

- Material: PVDF-HP
- Suitable for SYGEF Plus union butt fusion
- d75, d90 and d110 with buttress shaped thread

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)	G (inch)
20	16	BCF, IR	735 648 626	0.024	1.9	53	25	1
25	16	BCF, IR	735 648 627	0.041	1.9	56	25	1 1/4
32	16	BCF, IR	735 648 628	0.056	2.4	59	25	1 1/2
40	16	BCF, IR	735 648 629	0.089	2.4	62	25	2
50	16	BCF, IR	735 648 630	0.116	3.0	65	25	2 1/4
63	16	BCF, IR	735 648 631	0.172	3.0	68	25	2 3/4
75	16	BCF, IR	735 648 637	0.261	3.6	66	24	S 107.5 x 3.6
90	16	BCF, IR	735 648 638	0.258	4.3	65	24	S 107.5 x 3.6
110	16	BCF, IR	735 648 639	0.343	5.3	65	25	S 127.5 x 3.6



SYGEF Standard union nut PN16

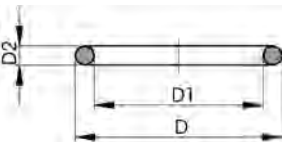
Model:

- Material: PVDF
- d75, d90 and d100 with buttress shaped thread

Note:

For the dimensions d75-110 please see instructions for the installation

Socket Fusion d (mm)	Butt Fusion d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	G (inch)	L (mm)
16	16	16	735 690 405	0.011	35	3/4	21
20	20	16	735 690 406	0.021	43	1	22
25	25	16	735 690 407	0.030	53	1 1/4	24
32	32	16	735 690 408	0.035	60	1 1/2	26
40	40	16	735 690 409	0.065	74	2	29
50	50	16	735 690 410	0.093	82	2 1/4	33
63	63	16	735 690 411	0.144	100	2 3/4	35
	75 - 90	16	735 690 422	0.289	133		40
	110	16	735 690 423	0.403	155		42



O-ring white

Model:

- For unions with gap filling O-ring position
- Hardness approx. 65° Shore
- FKM white min. temperature -15°C

d (mm)	FKM Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)
20	749 411 005	0.002	20.6	15.5	2.62
25	749 411 006	0.002	27.3	20.2	3.53
32	749 411 120	0.002	33.6	26.6	3.53
40	749 411 062	0.002	41.6	34.5	3.53
50	749 411 172	0.003	51.1	44.0	3.53
63	749 411 054	0.003	63.0	55.0	4.00
75	749 411 013	0.010	79.9	69.2	5.33
90	749 411 014	0.012	92.6	81.9	5.33
110	749 411 015	0.015	117.0	101.0	5.33



SYGEF Plus installation fitting SDR21/PN16

Model:

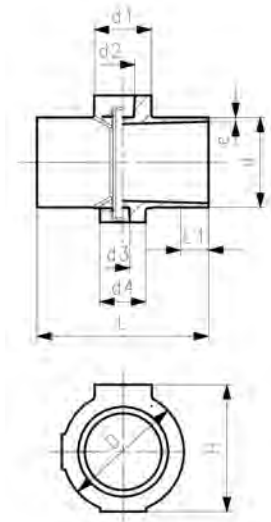
- Material: PVDF-HP
- Injection-moulded version

Range of use:

- compatible with all signet sensors excepting flow sensors

Note:

Thread needs to be milled, HAND HELD DRILLING MUST NOT BE DONE



d (mm)	PN (bar)	FM	Code	Weight (kg)
63	16	BCF, IR	735 918 811	0.147
75	16	BCF, IR	735 918 812	0.210
90	16	BCF, IR	735 918 813	0.265
110	16	BCF, IR	735 918 814	0.623
140	16	IR	735 918 816	1.319
160	16	IR	735 918 817	1.601
225	16	IR	735 918 820	2.698

d (mm)	D (mm)	e (mm)	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	H (mm)	L (mm)	L1 (mm)	Rp/NPT (inch)
63	85	3.0	40	17	10	32	89	120	25	¼ - ¾
75	96	3.6	40	17	10	40	101	130	25	¼ - ¾
90	110	4.3	40	17	10	40	116	130	25	¼ - ¾
110	127	5.3	40	17	10	40	136	130	25	¼ - ¾
140	171	6.7	63	17	10	50	171	155	40	¼ - 1
160	189	7.7	63	17	10	50	191	155	40	¼ - 1
225	248	10.8	63	17	10	50	256	155	40	¼ - 1



SYGEF Plus installation fitting SDR33/PN10

Model:

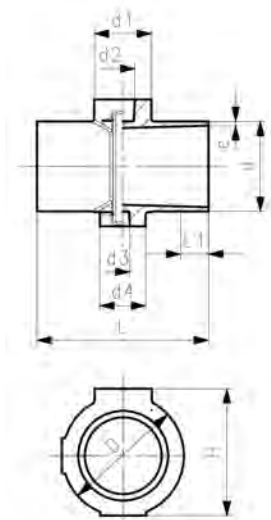
- Material: PVDF-HP
- Injection-moulded version

Range of use:

- compatible with all signet sensors excepting flow sensors

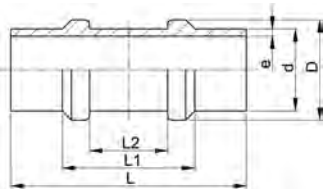
Note:

Thread needs to be milled, HAND HELD DRILLING MUST NOT BE DONE



d (mm)	PN (bar)	FM	Code	Weight (kg)
140	10	IR	735 918 716	0.967
160	10	IR	735 918 717	1.141
225	10	IR	735 918 720	1.845

d (mm)	D (mm)	e (mm)	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	H (mm)	L (mm)	L1 (mm)	Rp/NPT (inch)
140	171	4.3	63	17	10	50	171	155	40	¼ - 1
160	189	4.9	63	17	10	50	191	155	40	¼ - 1
225	248	6.9	63	17	10	50	256	155	40	¼ - 1

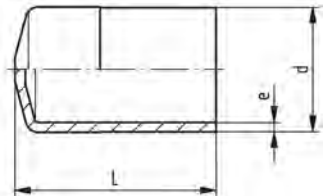
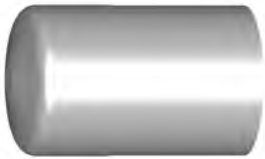


SYGEF Plus fixpoint fitting SDR21/PN16

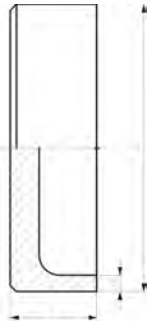
Model:

- Material: PVDF-HP

d (mm)	PN (bar)	FM	Code	Weight (kg)	D (mm)	e (mm)	L (mm)	L1 (mm)	L2 (mm)
20	16	BCF, IR	735 918 656	0.027	28	1.9	100	53	32
25	16	BCF, IR	735 918 657	0.036	33	1.9	100	53	32
32	16	BCF, IR	735 918 658	0.054	40	2.4	100	53	32
40	16	BCF, IR	735 918 659	0.067	48	2.4	100	53	32
50	16	BCF, IR	735 918 660	0.125	58	3.0	100	53	32
63	16	BCF, IR	735 918 661	0.131	71	3.0	105	53	32
75	16	BCF, IR	735 918 662	0.252	87	3.6	125	70	40
90	16	BCF, IR	735 918 663	0.370	105	4.3	127	70	40
110	16	BCF, IR	735 918 664	0.549	127	5.3	127	70	40



Type A



Type B

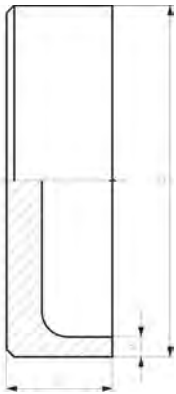
SYGEF Plus end cap SDR21/PN16

Model:

- Material: PVDF-HP
- Type A: injection molded
- Type B: machined, incl. facing mark (must not be exceeded)

d (mm)	PN (bar)	FM	Code	L (mm)	e (mm)	Type
20	16	BCF, IR	735 968 106	47	1.9	A
25	16	BCF, IR	735 968 107	47	1.9	A
32	16	BCF, IR	735 968 108	52	2.4	A
40	16	IR	735 968 334	30	2.4	B
50	16	IR	735 968 335	30	3.0	B
63	16	IR	735 968 336	30	3.0	B
75	16	IR	735 968 337	30	3.6	B
90	16	IR	735 968 338	30	4.3	B
110	16	IR	735 968 339	45	5.3	B
140	16	IR	735 968 341	45	6.7	B
160	16	IR	735 968 342	46	7.7	B
200	16	IR	735 968 344	54	9.6	B
225	16	IR	735 968 345	57	10.8	B

SYGEF Plus end cap SDR33/PN10

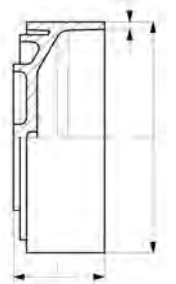


Model:

- Material: PVDF-HP
- Machined version, incl. facing mark (must not be exceeded)

d (mm)	PN (bar)	FM	Code	L (mm)	e (mm)
90	10	IR	735 968 238	30	2.8
110	10	IR	735 968 239	45	3.4
125	10	IR	735 968 240	45	3.9
140	10	IR	735 968 241	45	4.3
160	10	IR	735 968 242	46	4.9
200	10	IR	735 968 244	54	6.2
225	10	IR	735 968 245	57	6.9

SYGEF Plus end cap SDR21/PN16

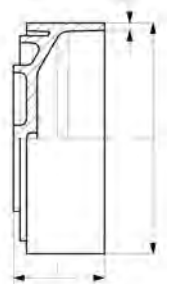


Model:

- Material: PVDF-HP

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)
250	16	IR	735 968 046	2.422	11.9	122
280	16	IR	735 968 047	3.062	13.4	122
315	16	IR	735 968 048	4.132	15.0	124

SYGEF Plus end cap SDR33/PN10



Model:

- Material: PVDF-HP

d (mm)	PN (bar)	FM	Code	e (mm)	L (mm)
250	10	IR	735 968 546	7.7	114
280	10	IR	735 968 547	8.6	115
315	10	IR	735 968 548	9.7	130

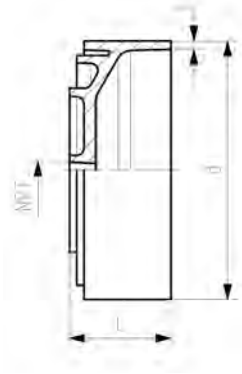


SYGEF Plus end cap with thread SDR21/PN16

Model:

- Material: PVDF-HP

d (mm)	NPT (inch)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)
250	½	16	IR	735 968 425	2.413	11.9	114
280	½	16	IR	735 968 430	3.104	13.4	115
315	½	16	IR	735 968 435	4.121	15.0	130

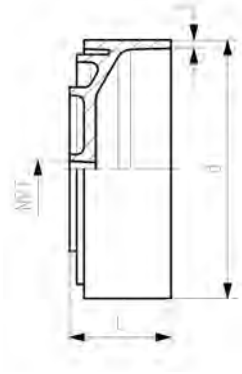


SYGEF Plus end cap with thread SDR33/PN10

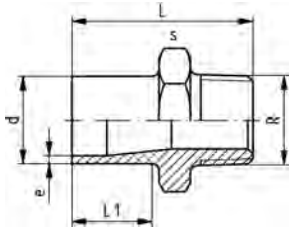
Model:

- Material: PVDF-HP

d (mm)	NPT (inch)	PN (bar)	FM	Code	e (mm)	L (mm)
250	½	10	IR	735 968 625	7.7	114
280	½	10	IR	735 968 630	8.6	115
315	½	10	IR	735 968 635	9.7	130



Transition fittings

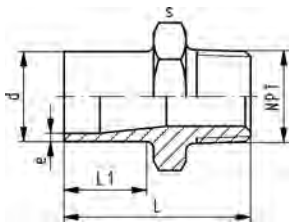


SYGEF Plus adaptor nipple male thread R SDR21/PN16

Model:

- Material: PVDF-HP
- With taper male thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature

d	R	PN	FM	Code	SP	Weight	e	L	s	L1
(mm)	(inch)	(bar)				(kg)	(mm)	(mm)	(mm)	(mm)
20	½	16	BCF, IR	735 910 706	1	0.039	1.9	53	32	28
25	¾	16	BCF, IR	735 910 707	1	0.021	1.9	55	36	28
32	1	16	BCF, IR	735 910 708	1	0.034	2.4	57	46	28
40	1 ¼	16	BCF, IR	735 910 709	1	0.058	2.4	60	55	28
50	1 ½	16	BCF, IR	735 910 710	1	0.087	3.0	63	65	28
63	2	16	BCF, IR	735 910 711	1	0.118	3.0	69	75	29

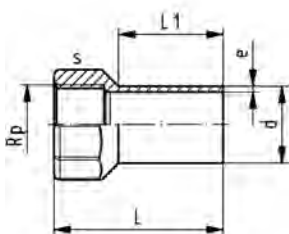


SYGEF Plus adaptor nipple male thread NPT SDR21/PN16

Model:

- Material: PVDF-HP
- With taper male thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature

d	NPT	PN	FM	Code	SP	GP	Weight	e	L	L1	s
(mm)	(inch)	(bar)					(kg)	(mm)	(mm)	(mm)	(mm)
20	½	16	BCF, IR	735 914 306	1	40	0.025	1.9	53	28	32
25	¾	16	BCF, IR	735 914 307	1	25	0.035	1.9	55	28	36
32	1	16	BCF, IR	735 914 308	1	40	0.053	2.4	57	28	46
40	1 ¼	16	BCF, IR	735 914 309	1	40	0.077	2.4	60	28	55
50	1 ½	16	BCF, IR	735 914 310	1	20	0.134	3.0	63	28	65
63	2	16	BCF, IR	735 914 311	1	15	0.119	3.0	69	29	75



SYGEF Plus adaptor socket female Rp SDR21/PN16

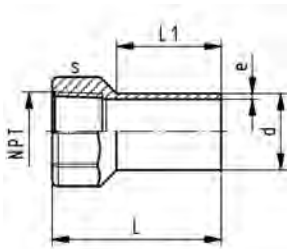
Model:

- Material: PVDF-HP
- With butt fusion spigot and parallel female thread Rp
- Avoid stresses when installing and large changes in temperature
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF

Note:

* Please keep strictly to the GF internal installation preferences

d	Rp	PN	FM	Code	SP	Weight	L	L1	e	s	
(mm)	(inch)	(bar)				(kg)	(mm)	(mm)	(mm)	(mm)	
20	¾	16	BCF, IR	735 910 785	1	0.030	54	30	1.9	32	
20	½	16	BCF, IR	735 910 786	1	0.026	54	30	1.9	32	
25	¾	16	BCF, IR	735 910 787	1	0.032	58	30	1.9	38	
32	1	16	BCF, IR	735 910 788	1	0.065	63	30	2.4	48	
40	1 ¼	16	BCF, IR	735 910 789	1	0.092	67	30	2.4	58	
50	1 ½	16	BCF, IR	735 910 790	1	0.108	67	30	3.0	65	
*	63	2	16	BCF, IR	735 910 791	1	0.195	73	30	3.0	80



SYGEF Plus adaptor socket female NPT SDR21/PN16

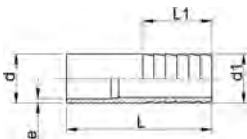
Model:

- Material: PVDF-HP
- With butt fusion spigot and taper female thread NPT
- Avoid stresses when installing and large changes in temperature
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF

Note:

* Please keep strictly to the GF internal installation preferences

d	NPT	PN	FM	Code	SP	Weight	e	L	s	L1	
(mm)	(inch)	(bar)				(kg)	(mm)	(mm)	(mm)	(mm)	
20	3/8	16	BCF, IR	735 914 785	1	0.029	1.9	54	32	30	
20	1/2	16	BCF, IR	735 914 786	1	0.027	1.9	54	32	30	
25	3/4	16	BCF, IR	735 914 787	1	0.033	1.9	58	38	30	
32	1	16	BCF, IR	735 914 788	1	0.066	2.4	63	48	30	
40	1 1/4	16	BCF, IR	735 914 789	1	0.085	2.4	67	58	30	
50	1 1/2	16	BCF, IR	735 914 790	1	0.108	3.0	67	65	30	
*	63	2	16	BCF, IR	735 914 791	1	0.190	3.0	73	80	30

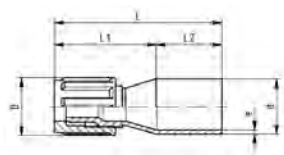


SYGEF Plus hose adapters SDR21/PN16

Model:

- Material: PVDF-HP
- With butt fusion spigot and parallel hose connection.

d - d1	PN	FM	Code	SP	GP	Weight	e	L	L1
(mm)	(bar)					(kg)	(mm)	(mm)	(mm)
20 - 20	16	BCF, IR	735 968 731	1	50	0.015	1.9	64	27
25 - 25	16	BCF, IR	735 968 732	1	30	0.024	1.9	75	36
32 - 32	16	BCF, IR	735 968 733	1	20	0.042	2.4	82	36
40 - 40	16	BCF, IR	735 968 734	1	20	0.063	2.4	84	42
50 - 50	16	BCF, IR	735 968 735	20	0	0.150	3.0	90	48
63 - 60	16	BCF, IR	735 968 736	15	0	0.002	3.0	100	50



SYGEF Plus flare transition fitting SDR33/PN10

Model:

- Welding dimension: PN16
- Material: PVDF-HP

d tube size	PN	FM	Code	Weight	e	L	L1	L2	D	
(mm)	(inch)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	
20	1/4	10	BCF, IR	735 598 430	0.028	1.9	75	45	30	21
20	3/8	10	BCF, IR	735 598 431	0.022	1.9	76	46	30	23
20	1/2	10	BCF, IR	735 598 432	0.034	1.9	77	47	30	26
20	3/4	10	BCF, IR	735 598 433	0.043	1.9	78	48	30	34
25	1/4	10	BCF, IR	735 598 435	0.033	1.9	75	45	30	21
25	3/8	10	BCF, IR	735 598 436	0.025	1.9	76	46	30	23
25	1/2	10	BCF, IR	735 598 437	0.028	1.9	77	47	30	26
25	3/4	10	BCF, IR	735 598 438	0.050	1.9	78	48	30	34
25	1	10	BCF, IR	735 598 439	0.102	1.9	87	57	30	46
32	1/2	10	BCF, IR	735 598 442	0.036	2.4	77	47	30	26
32	3/4	10	BCF, IR	735 598 443	0.048	2.4	78	48	30	34
32	1	10	BCF, IR	735 598 444	0.107	2.4	87	57	30	46

SYGEF Plus flange adaptor jointing face serrated SDR21/PN16



Model:

- Material: PVDF-HP



d (mm)	DN (mm)	PN (bar)	FM	Code	SP	GP	Weight (kg)
20	15	16	BCF, IR	735 798 831	1	25	0.029
25	20	16	BCF, IR	735 798 832	1	15	0.044
32	25	16	BCF, IR	735 798 833	1	20	0.070
40	32	16	BCF, IR	735 798 834	1	10	0.096
50	40	16	BCF, IR	735 798 835	1	10	0.136
63	50	16	BCF, IR	735 798 836	1	15	0.198
75	65	16	BCF, IR	735 798 837	1	12	0.311
90	80	16	BCF, IR	735 798 838	1	5	0.387
110	100	16	BCF, IR	735 798 839	1	4	0.555
140	125	16	IR	735 798 841	1	5	0.887
160	150	16	IR	735 798 842	1	5	1.171
200	200	16	IR	735 798 844	1	4	2.139
225	200	16	IR	735 798 845	1	4	2.064
250	250	16	IR	735 798 846	1	1	3.658
280	250	16	IR	735 798 847	1	1	3.586
315	300	16	IR	735 798 848	1	1	5.028

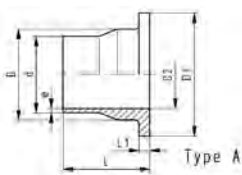
d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	e (mm)	L (mm)	L1 (mm)	L2 (mm)	Type
20	26	45	15		1.9	54	6		A
25	32	58	20	54	1.9	56	7	4	B
32	40	68	26	63	2.4	58	7	4	B
40	49	78	34	73	2.4	68	8	4	B
50	60	88	43	82	3.0	69	8	4	B
63	75	102	56		3.0	72	9		A
75	89	122	66		3.6	80	10		A
90	105	138	78	133	4.3	81	12	4	B
110	125	158	100		5.3	81	13		C
140	155	188	127		6.7	90	16		C
160	175	212	151		7.7	93	17		C
200	232	268	207		9.6	102	22		C
225	235	268	207		10.8	102	22		C
250	285	320	249		11.9	122	25		C
280	291	320	249		13.4	122	25		C
315	335	370	300		15.0	124	28		C

SYGEF Plus flange adaptor ANSI jointing face serrated SDR21/PN16



Model:

- Material: PVDF-HP
- Other dimensions identical with metric version



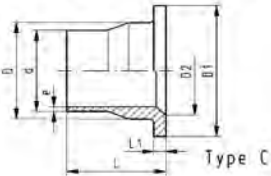
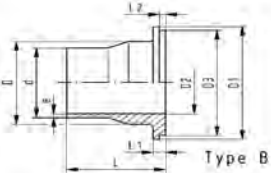
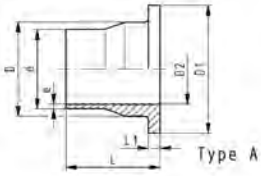
d (mm)	FM	PN (bar)	Code	SP	Weight (kg)	L1 (mm)	L (mm)	D (mm)	D2 (mm)	D1 (mm)	Type	e (mm)
25	BCF, IR	16	735 798 882	1	0.043	7	56	32	20	54	A	1.9
32	BCF, IR	16	735 798 883	1	0.067	7	58	40	26	63	A	2.4
40	BCF, IR	16	735 798 884	1	0.089	8	68	49	34	73	A	2.4
50	BCF, IR	16	735 798 885	1	0.130	8	69	60	43	82	A	3.0
90	BCF, IR	16	735 798 886	1	0.377	12	81	105	78	133	A	4.3

SYGEF Plus flange adaptor jointing face serrated SDR33/PN10



Model:

- Material: PVDF-HP



d (mm)	DN (mm)	PN (bar)	FM	Code	GP	Weight (kg)
90	80	10	BCF, IR	735 798 888	10	0.361
110	100	10	BCF, IR	735 798 889	4	0.471
125	100	10	IR	735 798 590	8	0.515
140	125	10	IR	735 798 891	5	0.738
160	150	10	IR	735 798 892	5	0.929
200	200	10	IR	735 798 894	4	1.704
225	200	10	IR	735 798 895	4	1.603
250	250	10	IR	735 798 596	2	2.730
280	250	10	IR	735 798 597	1	2.715
315	300	10	IR	735 798 598	1	3.657

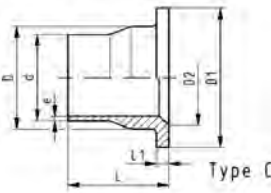
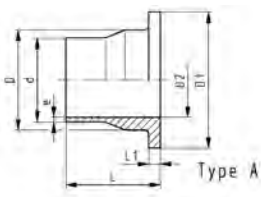
d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	e (mm)	L (mm)	L1 (mm)	L2 (mm)	Type
90	105	138	78	133	2.8	81	12	4	B
110	125	158	100		3.4	81	13		A
125	132	158	114		3.9	82	14		A
140	155	188	127		4.3	90	16		A
160	175	212	151		4.9	93	17		C
200	232	268	207		6.2	102	22		C
225	235	268	207		6.9	102	22		A
250	285	320	249		7.7	120	22		C
280	291	320	249		8.6	120	22		A
315	335	370	300		9.7	120	22		C

SYGEF Plus flange adaptor JIS SDR21/PN16



Model:

- Material: PVDF-HP



d (mm)	DN (mm)	PN (bar)	FM	Code	SP	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	e (mm)	L (mm)	L1 (mm)	Type
20	15	16	BCF, IR	735 805 926	1	0.022	26	34	15	2	54	6	A
25	20	16	BCF, IR	735 805 927	1	0.032	32	41	20	2	56	7	A
32	25	16	BCF, IR	735 805 928	1	0.051	40	50	26	2	58	7	A
40	32	16	BCF, IR	735 805 929	1	0.077	49	61	34	2	68	8	A
50	40	16	BCF, IR	735 805 930	1	0.118	60	73	42	3	69	8	A
63	50	16	BCF, IR	735 805 931	1	0.174	75	90	56	3	72	9	A
75	65	16	BCF, IR	735 805 932	1	0.255	89	106	66	4	80	10	A
90	80	16	BCF, IR	735 805 933	1	0.333	105	125	78	4	80	11	A
110	100	16	BCF, IR	735 805 934	1	0.556	125	150	100	5	80	12	C
140	125	16	IR	735 798 841	1	0.887	155	188	127	7	90	16	C
160	150	16	IR	735 798 842	1	1.171	175	212	151	8	93	17	C
225	200	16	IR	735 798 845	1	2.064	235	268	207	11	102	22	C
250	250	16	IR	735 798 846	1	3.658	285	320	249	12	122	25	C
280	250	16	IR	735 798 847	1	3.586	291	320	249	13	122	25	C
315	300	16	IR	735 798 848	1	5.028	335	370	300	15	124	28	C

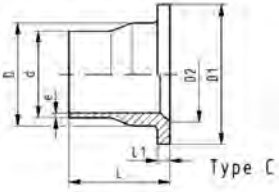
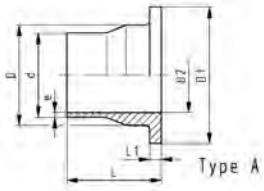
SYGEF Plus flange adaptor JIS PN10



Model:

- Material: PVDF-HP

d	DN	PN	FM	Code	SP	Weight	e	Type	D2	D1	L	D	L1
(mm)	(mm)	(bar)				(kg)	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)
140	125	10	IR	735 805 936	1	0.844	4.4	A	127	188	89	155	15
160	150	10	IR	735 805 937	1	0.908	4.9	C	151	212	92	175	16
225	200	10	IR	735 805 940	1	1.719	6.9	A	207	268	100	235	20



Flanges and Gaskets



Backing flange PP-V metric For butt fusion systems metric

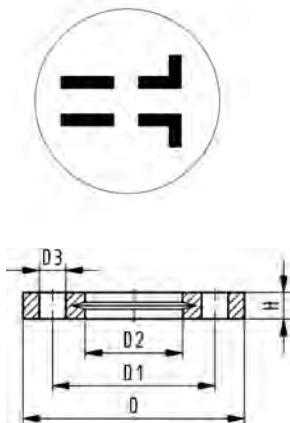
Model:

- Full-plastic flange PP-GF (30 % glass-fibre reinforced)
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes

¹⁾ Suitable for socket- and butt fusion systems

²⁾ Combined version, metric-ANSI



	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H max. (mm)	AL	SC
1	20	15	16	727 700 406	0.093	95	65	28	14	16	4	M12
1	25	20	16	727 700 407	0.120	105	75	34	14	17	4	M12
1	32	25	16	727 700 408	0.151	115	85	42	14	18	4	M12
1	40	32	16	727 700 409	0.244	140	100	51	18	20	4	M16
1	50	40	16	727 700 410	0.297	150	110	62	18	22	4	M16
1	63	50	16	727 700 411	0.362	165	125	78	18	24	4	M16
1	75	65	16	727 700 412	0.487	185	145	92	18	26	4	M16
	90	80	16	727 700 513	0.544	200	160	108	18	27	8	M16
	110	100	16	727 700 514	0.643	220	180	128	18	28	8	M16
	125	100	16	727 700 515	0.635	220	180	135	18	28	8	M16
	140	125	16	727 700 516	0.842	250	210	158	18	30	8	M16
2	160	150	16	727 700 517	1.200	285	240	178	22	32	8	M20
	180	150	16	727 700 518	1.200	285	240	188	22	32	8	M20
2	200	200	16	727 700 519	1.400	340	295	235	22	34	8	M20
2	225	200	16	727 700 520	1.400	340	295	238	22	34	8	M20
	250	250	10	727 700 521	2.052	395	350	288	22	38	12	M20
	280	250	10	727 700 522	1.700	395	350	294	22	38	12	M20
	315	300	10	727 700 523	2.400	445	400	338	22	42	12	M20
	355	350	10	727 700 524	4.440	515	460	376	22	46	16	M20
	400	400	10	727 700 525	5.624	574	515	430	26	50	16	M24



Backing flange PP-V Inch ANSI For socket systems metric and BS

Model:

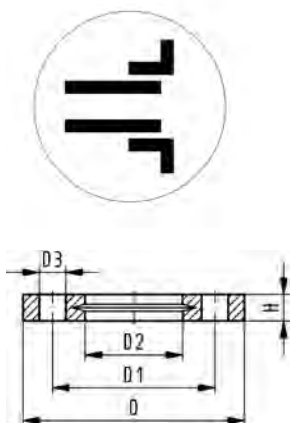
- Full-plastic flange PP-GF (30 % glass-fibre reinforced)
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- Special flange adapter ANSI for d25 - d50 and d90 required

AL: number of holes

¹⁾ Suitable for socket- and butt fusion systems

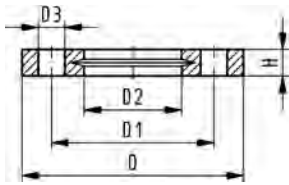
²⁾ Not for BS

³⁾ Combined version, metric - ANSI



	Size (inch)	DN (mm)	d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H max. (mm)	AL	SC
1	½	15	20	16	727 701 406	0.091	95	60	28	16	16	4	M12
1	¾	20	25	16	727 701 407	0.120	105	70	34	16	17	4	M12
1	1	25	32	16	727 701 408	0.147	115	79	42	16	18	4	M12
1	1 ¼	32	40	16	727 701 409	0.246	140	89	51	16	20	4	M16
1	1 ½	40	50	16	727 701 410	0.299	150	98	62	16	22	4	M16
1	2	50	63	16	727 701 411	0.361	165	121	78	19	24	4	M16
1	2 ½	65	75	16	727 701 412	0.492	185	140	92	19	26	4	M16
	3	80	90	16	727 701 413	0.605	200	152	110	19	27	4	M16
2	4	100	110	16	727 701 414	0.704	229	190	133	19	28	8	M16
2/3	6	150	160	16	727 700 417	1.050	285	240	190	22	32	8	M20

table continued on the next page



Size	DN	d	PN	Code	Weight	D	D1	D2	D3	H max.	AL	SC
(inch)	(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)		
3	8	200	200	16	727 700 419	1.629	340	295	226	22	34	8 M20
3	8	200	225	16	727 700 420	1.400	340	295	250	22	34	8 M20
	10	250	280	10	727 701 422	1.838	406	362	310	26	38	12 M20
	12	300	315	10	727 701 423	3.482	483	432	348	26	42	12 M20



Backing flange PP-Steel metric For butt fusion systems metric

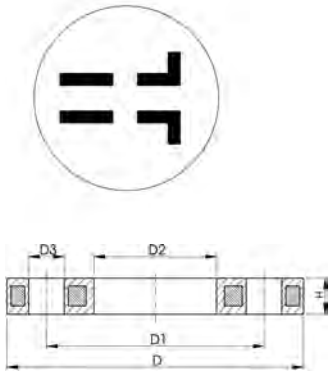
Model:

- Material: PP (30% glass-fibre reinforced) with steel ring
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes

¹⁾ Suitable for socket -and butt fusion systems

²⁾ Combined version, bolt circle metric - ANSI



	d	DN	PN	Code	Weight	D	D1	D2	D3	H max.	AL	SC
	(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)		
1	20	15	16	727 700 206	0.216	95	65	28	14	12	4	M12
1	25	20	16	727 700 207	0.279	105	75	34	14	12	4	M12
1	32	25	16	727 700 208	0.429	115	85	42	14	16	4	M12
1	40	32	16	727 700 209	0.621	140	100	51	18	16	4	M16
1	50	40	16	727 700 210	0.722	150	110	62	18	20	4	M16
1	63	50	16	727 700 211	0.900	165	125	78	18	20	4	M16
1	75	65	16	727 700 212	1.110	185	145	92	18	20	4	M16
	90	80	16	727 700 313	1.390	200	160	108	18	20	8	M16
	110	100	16	727 700 314	1.407	220	180	128	18	20	8	M16
	125	100	16	727 700 315	1.408	220	180	135	18	20	8	M16
	140	125	16	727 700 716	2.318	250	210	158	18	26	8	M16
2	160	150	16	727 700 717	3.491	285	240	178	22	26	8	M20
	180	150	16	727 700 718	3.108	285	240	188	22	26	8	M20
2	200	200	16	727 700 719	5.600	340	295	235	22	29	8	M20
2	225	200	16	727 700 720	5.533	340	295	238	22	29	8	M20
	250	250	16	727 700 721	6.632	395	350	288	22	32	12	M20
	280	250	16	727 700 722	6.573	395	350	294	22	32	12	M20
	315	300	16	727 700 723	7.903	445	400	338	22	36	12	M20
	355	350	16	727 700 724	14.587	515	460	376	23	42	16	M20
	400	400	16	727 700 725	20.034	574	515	430	26	42	16	M24



Backing flange PP-Steel Inch/ANSI For butt fusion systems metric

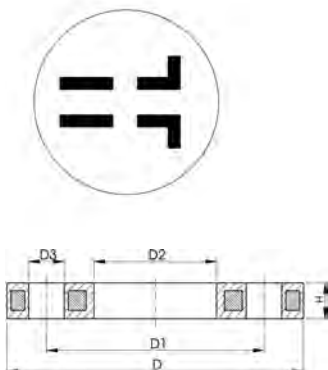
Model:

- Material: PP (30% glass-fibre reinforced) with steel ring
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- Special flange adapter ANSI for d25 - d50 and d90 required

¹⁾ Suitable for socket -and butt fusion systems

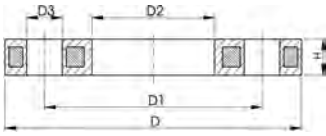
²⁾ Combined version, bolt circle metric - ANSI

AL: number of holes



	d	d	DN	PN	Code	Weight
	(inch)	(mm)	(mm)	(bar)		(kg)
1	½	20	15	16	727 701 206	0.213
1	¾	25	20	16	727 701 207	0.260
1	1	32	25	16	727 701 208	0.416
1	1 ¼	40	32	16	727 701 209	0.730
1	1 ½	50	40	16	727 701 210	0.809
1	2	63	50	16	727 701 211	0.866
1	2 ½	75	65	16	727 701 212	1.117
	3	90	80	16	727 701 313	1.499

table continued on the next page



	d (inch)	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)
	4	110	100	16	727 701 314	1.739
2	6	160	150	16	727 700 717	3.491
2	8	200	200	16	727 700 719	5.600
2	8	225	200	16	727 700 720	5.533
	10	250/280	250	10	727 701 321	6.000
	12	315	300	10	727 701 322	11.800
	14	355	350	10	727 701 323	17.900
	16	400	400	10	727 701 324	24.500
	20	450/500	500	10	727 701 325	33.600

	d (inch)	d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H max. (mm)	AL	SC
1	½	20	95	60	28	16	12	4	M12
1	¾	25	105	70	34	16	12	4	M12
1	1	32	115	79	42	16	16	4	M12
1	1 ¼	40	140	89	51	16	16	4	M16
1	1 ½	50	150	98	62	16	18	4	M16
1	2	63	165	121	78	19	18	4	M16
1	2 ½	75	185	140	92	19	18	4	M16
	3	90	200	152	108	19	20	4	M16
	4	110	229	190	128	19	20	8	M16
2	6	160	285	241	178	22	26	8	M20
2	8	200	340	297	235	22	29	8	M20
2	8	225	340	297	238	22	29	8	M20
	10	250/280	406	362	293	25	30	12	M24
	12	315	483	432	338	25	34	12	M24
	14	355	540	476	376	29	42	12	M27
	16	400	597	539	429	29	44	16	M27
	20	450/500	712	635	540	32	53	20	M30



**Profiled backing flange PP-Steel metric
For butt fusion systems metric**

Model:

- PP with glass-fibre reinforcement and GGG 50 insert
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 10**

Note:

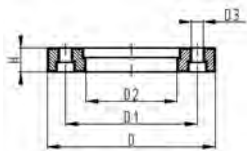
flat side = bolt side profiled side = flange adaptor side

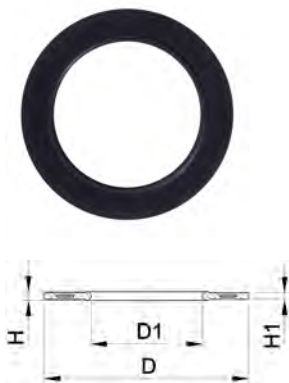
AL: number of holes

* Galvanized steel S235-JR, suitable for underground laying



	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
*	450	450	10	724 705 026	38.000	615	565	470	26	36	20	M24
	450	500	10	724 700 426	25.600	685	620	517	26	56	20	M24



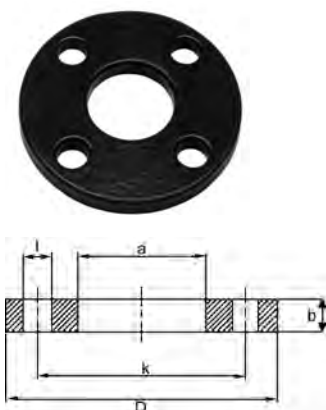


Profile Flange Gasket, metric EPDM / FKM

Model:

- For all metric GF Flange Adaptors
 - Hardness: 70° Shore EPDM, 75° Shore FKM
 - EPDM: approved acc. to DVGW Water W 270, KTW recommendation
 - Centering on the inner diameter of the screw crown
 - material steel insert: carbon steel
 - Rubber-steel body combined with rubber profile cord ring
- di FA are the suitable inner diameters of flanges adaptors

d (mm)	PN (bar)	DN (mm)	EPDM Code	FKM Code	Weight (kg)	D (mm)	D1 (mm)	di FA (mm)	H (mm)	H1 (mm)
16	16	10	748 440 705	749 440 705	0.012	46	16	6 - 16	4	3
20	16	15	748 440 706	749 440 706	0.013	51	20	10 - 20	4	3
25	16	20	748 440 707	749 440 707	0.014	61	22	12 - 22	4	3
32	16	25	748 440 708	749 440 708	0.019	71	28	18 - 28	4	3
40	16	32	748 440 709	749 440 709	0.026	82	40	30 - 40	4	3
50	16	40	748 440 710	749 440 710	0.039	92	46	36 - 46	4	3
63	16	50	748 440 711	749 440 711	0.050	107	58	48 - 58	5	4
75	16	65	748 440 712	749 440 712	0.082	127	69	59 - 69	5	4
90	16	80	748 440 713	749 440 713	0.083	142	84	73 - 84	5	4
110	16	100	748 440 714	749 440 714	0.127	162	104	94 - 104	6	5
125	16	100	748 440 715	749 440 715	0.105	162	123	113 - 123	6	5
140	16	125	748 440 716	749 440 716	0.173	192	137	127 - 137	6	5
160 - 180	16	150	748 440 717	749 440 717	0.207	218	160	150 - 160	8	6
200	16	200	748 440 719	749 440 719	0.263	273	203	192 - 203	8	6
225	16	200	748 440 720	749 440 720	0.255	273	220	207 - 220	8	6
250	16	250	748 440 721	749 440 721	0.462	328	252	238 - 252	8	6
280	16	250	748 440 722	749 440 722	0.323	328	274	264 - 274	8	6
315	16	300	748 440 723	749 440 723	0.549	378	306	296 - 306	8	6
355	16	350	748 440 724	749 440 724	0.870	438	355	340 - 355	10	7
400	16	400	748 440 725	749 440 725	1.088	489	400	385 - 400	10	7
450	16	500	748 440 726	749 440 726	0.718	594	403	393 - 403	10	7
500	16	500	748 440 727	749 440 727	0.718	594	447	437 - 447	10	7
560	16	600	748 440 728	749 440 728	0.923	695	494	484 - 494	10	7
630	16	600	748 440 729	749 440 729	0.923	695	555	545 - 555	10	7



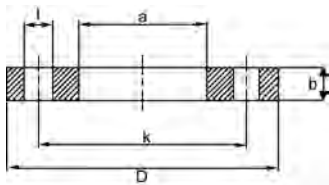
PVDF Coated Steel for Butt Fusion Systems Inch/ANSI Flange Ring blue coated steel

Material: PVDF blue coated steel

Bolt holes drilled in accordance with ANSI B16.5, Class 150 pattern

d (mm)	Size (inch)	Code	D (inch)	a (inch)	k (inch)	b (inch)	l (inch)	Bolt Holes
20	½	155 701 806	3.50	1.10	2.36	0.28	0.63	4
25	¾	155 701 807	3.86	1.34	2.76	0.28	0.63	4
32	1	155 701 808	4.25	1.65	3.11	0.28	0.63	4
40	1 ¼	155 701 809	4.61	2.01	3.50	0.32	0.63	4
50	1 ½	155 701 810	5.00	2.44	3.86	0.32	0.63	4
63	2	155 701 811	5.98	3.07	4.76	0.39	0.75	4
75	2 ½	155 701 812	7.01	3.62	5.51	0.39	0.75	4
90	3	155 701 813	7.48	4.33	5.98	0.39	0.75	4
110	4	155 703 814	9.02	5.24	7.48	0.39	0.75	8
160	6	155 701 917	10.98	7.05	9.48	0.50	0.88	8
200	8	155 701 919	13.50	9.30	11.73	0.63	0.88	8
225	9	155 701 920	13.50	9.42	11.73	0.63	0.88	8
250	10	155 701 921	16.00	11.35	14.25	0.88	0.88	12

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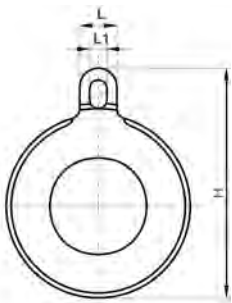
d	Size	Code	D	a	k	b	l	Bolt Holes
(mm)	(inch)		(inch)	(inch)	(inch)	(inch)	(inch)	
315	12	155 701 923	19.00	13.31	17.00	1.00	1.00	12
355	14	155 701 924	21.00	14.80	18.75	1.00	1.00	12
400	16	155 701 925	23.50	16.93	21.25	1.13	1.13	16
450	18	155 701 926						



SYGEF Plus Gasket

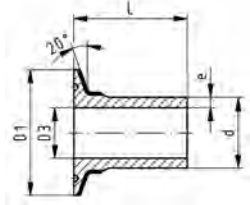
Model:

- For Use with Steel Flange Rings
- * Non-Returnable/Non-Cancelable



d	Pipe Size	Code	Weight	H	L	L1
(mm)	(inch)		(lb)	(inch)	(inch)	(inch)
25	3/4	731 400 753	0.044	2.99	0.79	0.51
32	1	731 400 755	0.053	3.58	0.98	0.63
40	1 1/4	731 400 757	0.079	3.98	0.98	0.63
50	1 1/2	731 400 759	0.084	4.33	0.98	0.63
63	2	731 400 760	0.132	5.04	0.98	0.63
75	2 1/2	731 400 761	0.179	5.83	0.98	0.63
90	3	731 400 763	0.132	6.34	0.98	0.63
110	4	731 400 764	0.220	7.44	0.98	0.63
160	6	731 400 667	0.309	9.61	1.18	0.79
200/225	8/9	731 400 670	0.441	11.81	1.18	0.79
250	10	731 400 671	0.683	14.17	1.38	0.87
315	12	731 400 672	0.650	16.50	1.38	0.87

Sanitary adaptors



SYGEF Plus sanitary adaptor With stainless reinforcement SDR21/PN16 For PVDF-PVDF connection

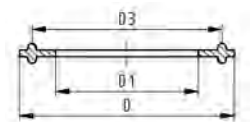
Model:

- Material: PVDF-HP
- without chamfer for complete evacuation even in horizontal installation

Note:

to be connected with standard clamp - please see dimension D1

d (mm)	FM	PN (bar)	Code	SP	Weight (kg)	L (mm)	e (mm)	D1 (mm)	D3 (mm)
20	BCF, IR	16	735 598 806	1	0.041	49	2	51	17
25	BCF, IR	16	735 598 807	1	0.044	55	2	51	20
32	BCF, IR	16	735 598 808	1	0.061	57	2	51	26
40	BCF, IR	16	735 598 809	1	0.079	67	2	64	33
50	BCF, IR	16	735 598 810	1	0.090	68	3	64	42
63	BCF, IR	16	735 598 811	1	0.118	71	3	78	55

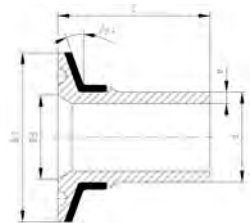


Gasket PTFE

Model:

- Special gaskets for sanitary adaptors PVDF-PVDF connection only

d (mm)	Code	SP	Weight (kg)	D1 (mm)	D3 (mm)	D (mm)
20	743 400 806	1	0.018	16.9	43.5	50.5
25	743 400 807	1	0.017	20.1	43.5	50.5
32	743 400 808	1	0.017	25.8	43.5	50.5
40	743 400 809	1	0.022	33.6	56.5	64.0
50	743 400 810	1	0.019	42.5	56.5	64.0
63	743 400 811	1	0.027	55.4	70.5	77.5



SYGEF Plus sanitary adaptor With stainless reinforcement SDR21/PN16 Ferrule ISO 1127

Model:

- Material: PVDF-HP
- * Model without chamfer

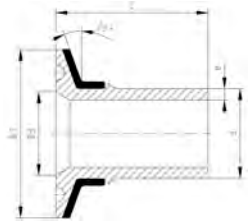
d (mm)	FM	DN (mm)	PN (bar)	Code	SP	Weight (kg)	D3 (mm)	D1 (mm)	e (mm)	L (mm)	
20	BCF, IR	15	16	735 598 006	1	0.032	18.10	51	2	50	
25	BCF, IR	20	16	735 598 008	1	0.042	23.40	51	2	55	
25	BCF, IR	25	16	735 598 009	1	0.041	29.70	51	2	55	
32	BCF, IR	25	16	735 598 010	1	0.045	29.60	51	2	57	
40	BCF, IR	32	16	735 598 014	1	0.073	38.40	64	2	67	
*	50	BCF, IR	40	16	735 598 016	1	0.083	44.30	64	3	68
*	63	BCF, IR	50	16	735 598 018	1	0.107	56.30	78	3	71



SYGEF Plus sanitary adaptor
With stainless reinforcement SDR21/PN16
Ferrule for mebrane manometer

Model:

- Material: PVDF-HP



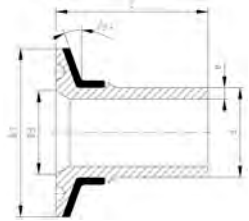
d (mm)	FM	DN (mm)	PN (bar)	Code	SP	Weight (kg)	D1 (mm)	D3 (mm)	e (mm)	L (mm)
20	BCF, IR	15	16	735 598 506	1	0.038	51	34.10	1.9	49
25	BCF, IR	20	16	735 598 508	1	0.041	51	34.10	1.9	55
32	BCF, IR	25	16	735 598 510	1	0.045	51	34.10	2.4	57



SYGEF Plus sanitary adaptor
With stainless reinforcement SDR21/PN16
JIS G3447

Model:

- Material: PVDF-HP



d (mm)	FM	DN	PN (bar)	Code	SP	Weight (kg)	D3 (mm)	D1 (mm)	e (mm)	L (mm)
20	BCF, IR	15 A	16	735 598 406	1	0.020	17.50	34	1.9	49
25	BCF, IR	1 S	16	735 598 408	1	0.042	23.40	51	1.9	55
32	BCF, IR	1 1/4 S	16	735 598 410	1	0.045	29.60	51	2.4	57
40	BCF, IR	1 1/2 S	16	735 598 414	1	0.047	35.20	51	2.4	67
50	BCF, IR	2 S	16	735 598 416	1	0.082	47.70	64	3.0	68
63	BCF, IR	2 1/2 S	16	735 598 418	1	0.107	59.90	78	3.0	71



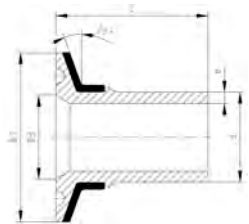
SYGEF Plus sanitary adaptor
With stainless reinforcement SDR21/PN16
ASME BPE

Model:

- Material: PVDF-HP

¹ Model without stainless reinforcement

* Model without chamfer



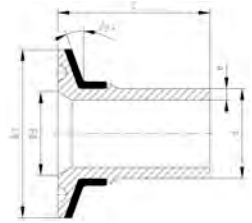
d (mm)	FM	Size (inch)	PN (bar)	Code	SP	GP	Weight (kg)	D1 (mm)	D3 (mm)	e (mm)	L (mm)	
1*	20	BCF, IR	¾	16	735 598 357	1	50	0.011	25	16.20	1.9	49
	25	BCF, IR	1	16	735 598 359	1	15	0.042	51	22.40	1.9	55
	32	BCF, IR	1 ½	16	735 598 362	1	15	0.061	51	34.90	2.4	57
	40	BCF, IR	1 ½	16	735 598 365	1	15	0.047	51	35.50	2.4	57
	50	BCF, IR	2	16	735 598 367	1	15	0.118	64	47.70	3.0	68
	63	BCF, IR	2 ½	16	735 598 369	1	10	0.142	78	59.90	3.0	71



SYGEF Plus sanitary adaptor
With stainless reinforcement SDR21/PN16
ISO 2852

Model:

- Material: PVDF-HP



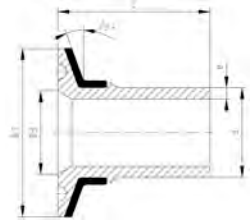
d (mm)	FM	DN (mm)	PN (bar)	Code	SP	Weight (kg)	D1 (mm)	D3 (mm)	e (mm)	L (mm)
25	BCF, IR	25	16	735 598 309	1	0.042	51	22.40	1.9	55
32	BCF, IR	32	16	735 598 312	1	0.045	51	31.70	2.4	57
40	BCF, IR	40	16	735 598 315	1	0.047	51	35.50	2.4	67
50	BCF, IR	50	16	735 598 317	1	0.081	64	48.60	3.0	68
63	BCF, IR	65	16	735 598 319	1	0.107	78	59.90	3.0	71



SYGEF Plus sanitary adaptor
With stainless reinforcement PN16
DIN 3017

Model:

- Material: PVDF-HP



d (mm)	FM	DN (mm)	PN (bar)	Code	SP	Weight (kg)	D1 (mm)	D3 (mm)	e (mm)	L (mm)
25	BCF, IR	25	16	735 598 259	1	0.042	51	22.40	1.9	55
32	BCF, IR	32	16	735 598 262	1	0.042	51	31.70	2.4	57
40	BCF, IR	40	16	735 598 265	1	0.047	51	35.50	2.4	67
50	BCF, IR	50	16	735 598 267	1	0.081	64	48.60	3.0	68
63	BCF, IR	65	16	735 598 269	1	0.107	78	59.90	3.0	71



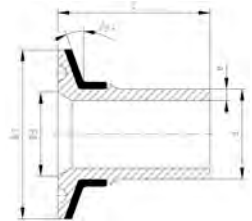
SYGEF Plus sanitary adaptor
With stainless reinforcement SDR21/PN16
Ferrule 3A Standard

Model:

- Material: PVDF-HP

¹ Model without stainless reinforcement

* Model without chamfer



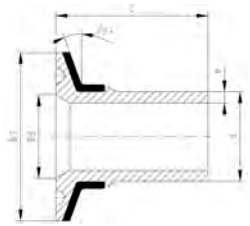
d (mm)	FM	Inch (inch)	PN (bar)	Code	SP	Weight (kg)	D1 (mm)	D3 (mm)	e (mm)	L (mm)	
1*	20	BCF, IR	3/4	16	735 598 207	1	0.011	25	16.20	1.9	50
*	25	BCF, IR	1	16	735 598 209	1	0.054	51	22.40	1.9	55
	32	BCF, IR	1 1/2	16	735 598 213	1	0.044	51	34.90	2.4	57
	40	BCF, IR	1 1/2	16	735 598 215	1	0.047	51	35.50	2.4	67
	50	BCF, IR	2	16	735 598 217	1	0.082	64	47.70	3.0	68
	63	BCF, IR	2 1/2	16	735 598 219	1	0.107	78	59.90	3.0	71



SYGEF Plus sanitary adaptor
With stainless reinforcement SDR21/PN16
Ferrule BS Inch 4825

Model:

- Material: PVDF-HP
- * Model without chamfer



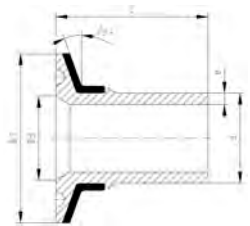
	d (mm)	FM (bar)	PN (bar)	Inch (inch)	Code	SP	Weight (kg)	D1 (mm)	D3 (mm)	e (mm)	L (mm)
	20	BCF, IR	16	3/4	735 598 157	1	0.040	51	22.10	1.9	50
*	25	BCF, IR	16	1	735 598 159	1	0.055	51	22.40	1.9	55
	32	BCF, IR	16	1 1/2	735 598 163	1	0.044	51	34.90	2.4	57
	40	BCF, IR	16	1 1/2	735 598 165	1	0.047	51	35.50	2.4	67
	50	BCF, IR	16	2	735 598 167	1	0.082	64	47.70	3.0	68
	63	BCF, IR	16	2 1/2	735 598 169	1	0.107	78	59.90	3.0	71



SYGEF Plus sanitary adaptor
With stainless reinforcement SDR21/PN16
Ferrule DIN 32676

Model:

- Material: PVDF-HP
- * Model without chamfer



	d (mm)	FM (mm)	DN (mm)	PN (bar)	Code	SP	Weight (kg)	D1 (mm)	D3 (mm)	e (mm)	L (mm)
*	20	BCF, IR	15	16	735 598 056	1	0.020	34	16.00	2	50
	20	BCF, IR	20	16	735 598 057	1	0.020	34	20.00	2	50
	25	BCF, IR	25	16	735 598 059	1	0.056	51	26.00	2	55
	32	BCF, IR	32	16	735 598 062	1	0.045	51	31.70	2	57
	40	BCF, IR	40	16	735 598 065	1	0.047	51	38.00	2	67
	50	BCF, IR	50	16	735 598 067	1	0.081	64	50.00	3	68

Installation fittings



SYGEF Plus Installation fitting with sanitary adaptor SDR21/PN16

Model:

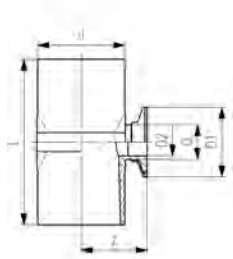
- without chamfer for complete evacuation even in horizontal installation
- Material: PVDF-HP
- d [mm] = main line
- D [mm] = connector line

Range of use:

- for pressure gauges
- for sampling valves
- for sanitary adaptor PVDF connection

Note:

* machined T



	d (mm)	D (mm)	FM	PN	Code	Weight (kg)	L (mm)	D2 (mm)	D1 (mm)	Z (mm)
*	20	20	BCF, IR	16	735 318 101	0.100	110	34.1	50.5	32.7
*	25	25	BCF, IR	16	735 318 202	0.097	110	34.1	50.5	35.2
*	32	32	BCF, IR	16	735 318 303	0.138	124	34.1	50.5	38.7
*	40	25	BCF, IR	16	735 318 204	0.100	124	19.9	50.5	42.7
*	40	32	BCF, IR	16	735 318 304	0.100	124	25.6	50.5	42.7
*	50	25	BCF, IR	16	735 318 205	0.100	124	19.9	50.5	47.7
*	50	32	BCF, IR	16	735 318 305	0.100	124	25.6	50.5	47.7
*	50	50	BCF, IR	16	735 318 505	0.100	124	42.2	64.0	47.7
	63	25	BCF, IR	16	735 318 206	0.258	120	19.9	50.5	54.2
	63	32	BCF, IR	16	735 318 306	0.269	120	25.6	50.5	54.2
*	63	50	BCF, IR	16	735 318 506	0.100	120	42.2	64.0	54.2
*	63	63	BCF, IR	16	735 318 606	0.100	138	55.1	77.5	54.2
	75	25	BCF, IR	16	735 318 207	0.352	130	19.9	50.5	60.2
	75	32	BCF, IR	16	735 318 307	0.357	130	25.6	50.5	60.2
	75	50	BCF, IR	16	735 318 507	0.402	130	42.2	64.0	60.2
*	75	63	BCF, IR	16	735 318 607	0.619	130	55.1	77.5	60.2
	90	25	BCF, IR	16	735 318 208	0.449	130	19.9	50.5	67.7
	90	32	BCF, IR	16	735 318 308	0.454	130	25.6	50.5	67.7
	90	50	BCF, IR	16	735 318 508	0.496	130	42.2	64.0	67.7
	90	63	BCF, IR	16	735 318 608	0.658	138	55.1	77.5	67.7
	110	25	BCF, IR	16	735 318 209	0.614	130	19.9	50.5	77.7
	110	32	BCF, IR	16	735 318 309	0.619	130	25.6	50.5	77.7
	110	50	BCF, IR	16	735 318 509	0.662	130	42.2	64.0	77.7
	110	63	BCF, IR	16	735 318 609	0.686	180	55.1	77.5	77.7

SYGEF Plus

Valves



SYGEF Plus Valves

Hand-operated valves

SYGEF Plus Diaphragm valve type 514 With butt fusion spigots metric

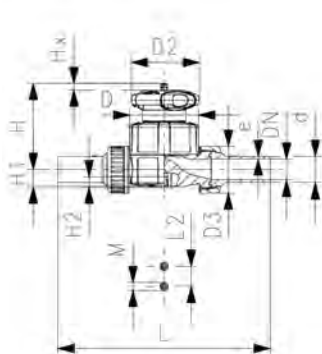


Model:

- Material: PVDF-HP
- Ideally suited for High Purity applications, not recommended for oxidizing acids
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length
- **For water use only**

Option:

- Individual configuration of the valve
- Self adjusting multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
20	15	16	125	180 514 132	0.399
25	20	16	271	180 514 133	0.597
32	25	16	481	180 514 134	1.111
40	32	16	759	180 514 135	1.286
50	40	16	1263	180 514 136	2.989
63	50	16	1728	180 514 137	3.164

d (mm)	D (mm)	D2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	43	73	14	12	196	25	M6	1.9	7	½
25	80	65	53	81	18	12	221	25	M6	1.9	10	¾
32	88	87	60	107	22	12	234	25	M6	2.4	13	1
40	101	87	74	115	26	15	260	45	M8	2.4	15	1 ¼
50	117	135	82	148	32	15	284	45	M8	3.0	19	1 ½
63	144	135	100	166	39	15	321	45	M8	3.0	25	2



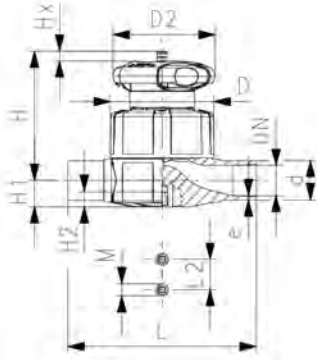
SYGEF Plus
Diaphragm valve type 515
With butt fusion spigots metric

Model:

- Material: PVDF-HP
- Ideally suited for High Purity applications, not recommended for oxidizing acids
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558
- **For water use only**

Option:

- Individual configuration of the valve
- Self adjusting multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
20	15	16	125	180 515 132	0.295
25	20	16	271	180 515 133	0.438
32	25	16	481	180 515 134	0.870
40	32	16	759	180 515 135	0.944
50	40	16	1263	180 515 136	1.846
63	50	16	1728	180 515 137	2.512

d (mm)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	73	14	12	124	25	M4	1.9	7	½
25	80	65	81	18	12	144	25	M4	1.9	10	¾
32	88	87	107	22	12	155	25	M4	2.4	13	1
40	101	87	115	26	15	176	45	M8	2.4	15	1 ¼
50	117	135	148	32	15	193	45	M8	3.0	19	1 ½
63	144	135	166	39	15	223	45	M8	3.0	25	2

SYGEF Plus
Diaphragm valve type 519
With butt fusion spigot metric

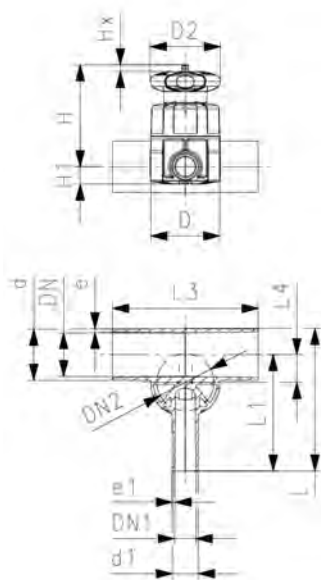


Model:

- Material: PVDF-HP
- Ideally suited for High Purity applications, not recommended for oxidizing acids
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Smallest possible dead space
- **For water use only**

Option:

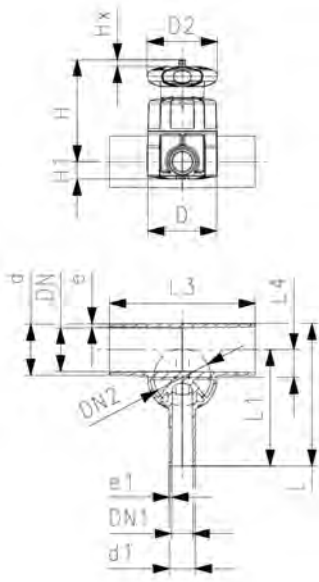
- Individual configuration of the valve
- Self adjusting multifunctional module with integrated limit switches



d (mm)	d1 (mm)	DN (mm)	DN1 (mm)	Valve Size d (mm)	DN2 (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
20	20	15	15	20	15	16	57	180 519 301	0.350
25	20	20	15	25	20	16	89	180 519 303	0.476
25	25	20	20	25	20	16	118	180 519 304	0.633
32	20	25	15	25	20	16	80	180 519 307	0.692
32	25	25	20	25	20	16	105	180 519 308	0.721
32	32	25	25	32	25	16	231	180 519 309	0.889
40	20	32	15	32	25	16	85	180 519 312	0.963
40	25	32	20	32	25	16	119	180 519 313	0.812
40	32	32	25	32	25	16	153	180 519 314	0.845
40	40	32	32	32	25	16	187	180 519 315	0.866
50	20	40	15	25	20	16	86	180 519 318	0.789
50	25	40	20	32	25	16	160	180 519 319	0.905
50	32	40	25	32	25	16	206	180 519 320	0.926
50	40	40	32	63	50	16	524	180 519 321	2.381
50	50	40	40	63	50	16	667	180 519 322	2.387
63	20	50	15	25	20	16	84	180 519 325	0.784
63	25	50	20	32	25	16	150	180 519 326	1.411
63	32	50	25	32	25	16	184	180 519 327	1.018
63	40	50	32	63	50	16	471	180 519 328	2.606
63	50	50	40	63	50	16	610	180 519 329	2.884
63	63	50	50	63	50	16	747	180 519 330	2.653
90	20	80	15	32	25	16	82	180 519 341	1.304
90	25	80	20	32	25	16	103	180 519 342	1.703
90	32	80	25	32	25	16	129	180 519 343	1.719
90	50	80	40	63	50	16	623	180 519 345	3.164
90	63	80	50	63	50	16	696	180 519 346	3.172
110	20	100	15	32	25	16	78	180 519 351	1.966
110	25	100	20	32	25	16	103	180 519 352	1.972
110	32	100	25	32	25	16	131	180 519 353	1.975
110	50	100	40	63	50	16	604	180 519 355	3.491
110	63	100	50	63	50	16	661	180 519 356	3.580

d (mm)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	e1 (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	75	14.0	117	96	162	12	1.9	1.9	7	½
25	80	65	80	17.5	133	108	162	16	1.9	1.9	10	¾
25	80	65	80	17.5	133	108	162	16	1.9	1.9	10	¾
32	80	65	84	21.5	142	120	162	19	2.4	1.9	10	1
32	80	65	84	21.5	142	120	162	19	2.4	1.9	10	1
32	88	87	107	21.5	145	120	160	19	2.4	2.4	13	1
40	88	87	115	21.5	149	128	180	23	2.4	1.9	13	1 ¼
40	88	87	115	21.5	149	128	180	23	2.4	1.9	13	1 ¼
40	88	87	115	21.5	149	128	180	23	2.4	2.4	13	1 ¼
40	88	87	115	21.5	174	153	180	23	2.4	2.4	13	1 ¼
50	80	65	97	17.5	160	134	180	27	3.0	1.9	10	1 ½
50	88	87	120	21.5	160	134	180	28	3.0	1.9	13	1 ½

table continued on the next page



d (mm)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	e1 (mm)	Lift = Hx (mm)	closest inch (inch)
50	88	87	120	21.5	160	134	180	28	3.0	2.4	13	1 ½
50	144	135	164	32.0	209	169	209	33	3.0	2.4	25	1 ½
50	144	135	164	32.0	209	169	209	33	3.0	3.0	25	1 ½
63	80	65	104	17.5	177	144	180	33	3.0	1.9	10	2
63	88	87	127	21.5	177	144	180	35	3.0	1.9	13	2
63	88	87	127	21.5	177	144	180	35	3.0	2.4	13	2
63	144	135	170	39.0	225	192	220	39	3.0	2.4	25	2
63	144	135	170	39.0	225	192	220	39	3.0	3.0	25	2
63	144	135	170	39.0	225	192	220	39	3.0	3.0	25	2
90	88	87	140	21.5	205	159	190	47	4.3	1.9	13	3
90	88	87	140	21.5	205	159	190	47	4.3	1.9	13	3
90	88	87	140	21.5	205	159	190	47	4.3	2.4	13	3
90	144	135	184	39.0	254	207	250	51	4.3	3.0	25	3
90	144	135	184	39.0	254	207	250	51	4.3	3.0	25	3
110	88	87	149	21.5	227	171	190	56	5.3	1.9	13	4
110	88	87	149	21.5	227	171	190	56	5.3	1.9	13	4
110	88	87	149	21.5	227	171	190	56	5.3	2.4	13	4
110	144	135	194	39.0	276	219	250	60	5.3	3.0	25	4
110	144	135	194	39.0	276	219	250	60	5.3	3.0	25	4



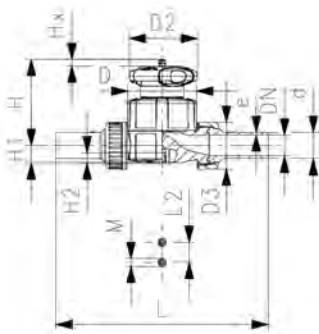
SYGEF Plus
Diaphragm valve type 514
With butt fusion spigots metric

Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve
- Self adjusting multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	PTFE/FKM Code	Weight (kg)
20	15	10	125	181 514 132	181 514 152	0.399
25	20	10	271	181 514 133	181 514 153	0.597
32	25	10	481	181 514 134	181 514 154	1.111
40	32	10	759	181 514 135	181 514 155	1.286
50	40	10	1263	181 514 136	181 514 156	2.989
63	50	10	1728	181 514 137	181 514 157	3.164

d (mm)	D (mm)	D2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	43	73	14	12	196	25	M6	1.9	7	½
25	80	65	53	81	18	12	221	25	M6	1.9	10	¾
32	88	87	60	107	22	12	234	25	M6	2.4	13	1
40	101	87	74	115	26	15	260	45	M8	2.4	15	1 ¼
50	117	135	82	148	32	15	284	45	M8	3.0	19	1 ½
63	144	135	100	166	39	15	321	45	M8	3.0	25	2



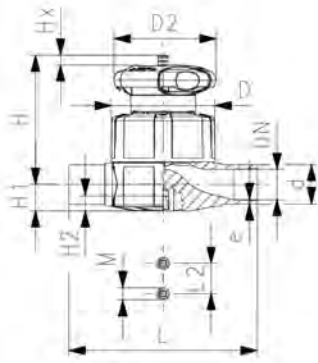
SYGEF Plus
Diaphragm valve type 515
With butt fusion spigots metric

Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

Option:

- Individual configuration of the valve
- Self adjusting multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	PTFE/FKM Code	Weight (kg)
20	15	10	125	181 515 132	181 515 152	0.295
25	20	10	271	181 515 133	181 515 153	0.438
32	25	10	481	181 515 134	181 515 154	0.870
40	32	10	759	181 515 135	181 515 155	1.103
50	40	10	1263	181 515 136	181 515 156	1.846
63	50	10	1728	181 515 137	181 515 157	2.512

d (mm)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	73	14	12	124	25	M6	1.9	7	½
25	80	65	81	18	12	144	25	M6	1.9	10	¾
32	88	87	107	22	12	155	25	M6	2.4	13	1
40	101	87	115	26	15	176	45	M8	2.4	15	1 ¼
50	117	135	148	32	15	193	45	M8	3.0	19	1 ½
63	144	135	166	39	15	223	45	M8	3.0	25	2



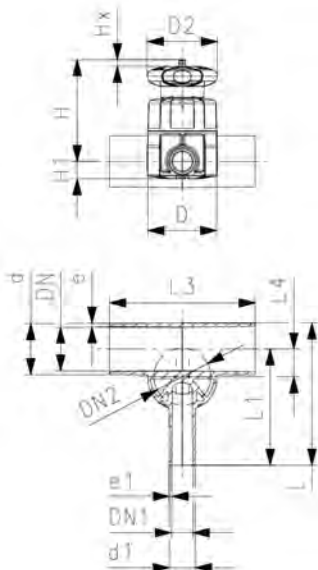
SYGEF Plus
Diaphragm valve type 519
With butt fusion spigots metric

Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Smallest possible dead space

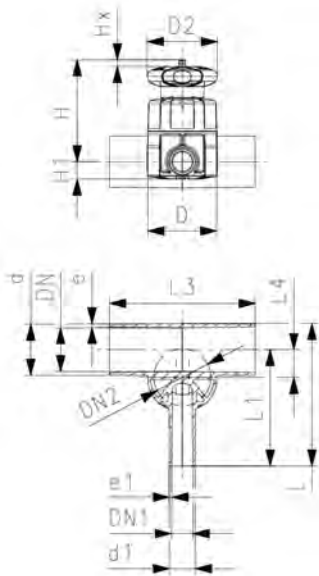
Option:

- Individual configuration of the valve
- Self adjusting multifunctional module with integrated limit switches



d (mm)	d1 (mm)	DN (mm)	DN1 (mm)	Valve Size d (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	PTFE/FKM Code	Weight (kg)
20	20	15	15	20	10	57	181 519 301	181 519 501	0.350
25	20	20	15	25	10	89	181 519 303	181 519 503	0.476
25	25	20	20	25	10	118	181 519 304	181 519 504	0.633
32	20	25	15	25	10	80	181 519 307	181 519 507	0.692
32	25	25	20	25	10	105	181 519 308	181 519 508	0.721
32	32	25	25	32	10	231	181 519 309	181 519 509	0.889
40	20	32	15	32	10	85	181 519 312	181 519 512	0.963
40	25	32	20	32	10	119	181 519 313	181 519 513	0.812
40	32	32	25	32	10	153	181 519 314	181 519 514	0.845
40	40	32	32	32	10	187	181 519 315	181 519 515	0.866
50	20	40	15	25	10	86	181 519 318	181 519 518	0.789
50	25	40	20	32	10	160	181 519 319	181 519 519	0.905
50	32	40	25	32	10	206	181 519 320	181 519 520	0.926
50	40	40	32	63	10	524	181 519 321	181 519 521	2.381

table continued on the next page



d (mm)	d1 (mm)	DN (mm)	DN1 (mm)	Valve Size d (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	PTFE/FKM Code	Weight (kg)
50	50	40	40	63	10	667	181 519 322	181 519 522	2.387
63	20	50	15	25	10	84	181 519 325	181 519 525	0.784
63	25	50	20	32	10	150	181 519 326	181 519 526	1.411
63	32	50	25	32	10	184	181 519 327	181 519 527	1.018
63	40	50	32	63	10	471	181 519 328	181 519 528	2.606
63	50	50	40	63	10	610	181 519 329	181 519 529	3.458
63	63	50	50	63	10	747	181 519 330	181 519 530	2.653
90	20	80	15	32	10	82	181 519 341	181 519 541	1.304
90	25	80	20	32	10	103	181 519 342	181 519 542	1.703
90	32	80	25	32	10	129	181 519 343	181 519 543	1.719
90	50	80	40	63	10	623	181 519 345	181 519 545	3.164
90	63	80	50	63	10	696	181 519 346	181 519 546	3.172
110	20	100	15	32	10	78	181 519 351	181 519 551	1.966
110	25	100	20	32	10	103	181 519 352	181 519 552	1.972
110	32	100	25	32	10	131	181 519 353	181 519 553	1.975
110	50	100	40	63	10	604	181 519 355	181 519 555	4.327
110	63	100	50	63	10	661	181 519 356	181 519 556	3.580

d (mm)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	Lift = Hx (mm)	DN2 (mm)	e1 (mm)
20	65	65	75	14.0	117	96	162	12	1.9	7	15	1.9
25	80	65	80	17.5	133	108	162	16	1.9	10	20	1.9
25	80	65	80	17.5	133	108	162	16	1.9	10	20	1.9
32	80	65	84	21.5	142	120	162	19	2.4	10	20	1.9
32	80	65	84	21.5	142	120	162	19	2.4	10	20	1.9
32	88	87	107	21.5	145	120	160	19	2.4	13	25	2.4
40	88	87	115	21.5	149	128	180	23	2.4	13	25	1.9
40	88	87	115	21.5	149	128	180	23	2.4	13	25	1.9
40	88	87	115	21.5	149	128	180	23	2.4	13	25	2.4
40	88	87	115	21.5	174	153	180	23	2.4	13	25	2.4
50	80	65	97	17.5	160	134	180	27	3.0	10	20	1.9
50	88	87	120	21.5	160	134	180	28	3.0	13	25	1.9
50	88	87	120	21.5	160	134	180	28	3.0	13	25	2.4
50	144	135	164	32.0	209	169	209	33	3.0	25	50	2.4
50	144	135	164	32.0	209	169	209	33	3.0	25	50	3.0
63	80	65	104	17.5	177	144	180	33	3.0	10	20	1.9
63	88	87	127	21.5	177	144	180	35	3.0	13	25	1.9
63	88	87	127	21.5	177	144	180	35	3.0	13	25	2.4
63	144	135	170	39.0	225	192	220	39	3.0	25	50	2.4
63	144	135	170	39.0	225	192	220	39	3.0	25	50	3.0
63	144	135	170	39.0	225	192	220	39	3.0	25	50	3.0
90	88	87	140	21.5	205	159	190	47	4.3	13	25	1.9
90	88	87	140	21.5	205	159	190	47	4.3	13	25	1.9
90	88	87	140	21.5	205	159	190	47	4.3	13	25	2.4
90	144	135	184	39.0	254	207	250	51	4.3	25	50	3.0
90	144	135	184	39.0	254	207	250	51	4.3	25	50	3.0
110	88	87	149	21.5	227	171	190	56	5.3	13	25	1.9
110	88	87	149	21.5	227	171	190	56	5.3	13	25	1.9
110	88	87	149	21.5	227	171	190	56	5.3	13	25	2.4
110	144	135	194	39.0	276	219	250	60	5.3	25	50	3.0
110	144	135	194	39.0	276	219	250	60	5.3	25	50	3.0



SYGEF Plus
Diaphragm valve type 317
With flanges metric

Model:

- Material: PVDF-HP
- DN 15-65 with backing flange
- DN 80-150 with fixed flange
- Overall length according to EN 558
- Diaphragm, PTFE with EPDM backing diaphragm (FDA compliant)

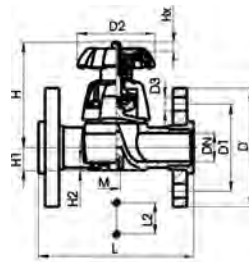
Option:

- Handwheel with built-in locking mechanism (standard version is nonlockable)

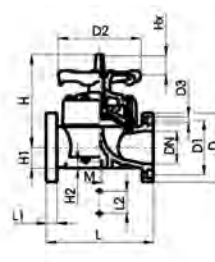
* **DN80 and DN150 fixed flanges metric and inch ANSI B16.5**

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
	75	2 ½	65	10	992	175 317 453	5.700
*	90	3	80	10	1700	175 317 054	11.057
	110	4	100	6	2700	175 317 055	16.112
*	160	6	150	6	6033	175 317 057	31.000

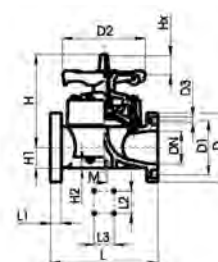
	d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	M	AL
	75	185	145	152	18	201	46	15	290		70	M8	4
*	90	200	152	270	18	265	57	23	310	35	120	M12	8
	110	225	180	270	18	302	68	23	350	35	120	M12	8
*	160	285	240	400	22	437	108	23	480	26	100	M12	8



DN 15-65



DN 80-100



DN 150



SYGEF Plus
Diaphragm valve type 317
Flanged version Inch ANSI

Model:

- Material: PVDF-HP
- DN 15-65 with backing flange
- DN 80-150 with fixed flange
- Overall length according to EN 558
- Diaphragm, PTFE with EPDM backing diaphragm (FDA compliant)

Option:

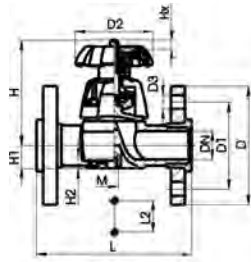
- Handwheel with built-in locking mechanism (standard version is nonlockable)

* **DN80 and DN150 fixed flanges metric and inch ANSI B16.5**

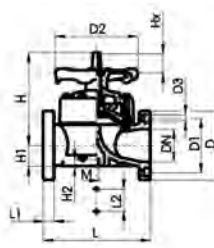
	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE with EPDM supp. Diaphragm Code	Weight (kg)
	75	2 ½	65	10	992	175 317 568	5.700
*	90	3	80	10	1700	175 317 054	11.057
	110	4	100	10	2700	175 317 355	14.950

table continued on the next page

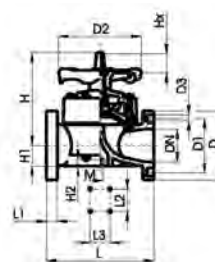
	d	D	D1	D2	D3	H	H1	H2	L	L1	L2	M	AL
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
	75	185	140	152	18	201	46	15	290		70	M8	4
*	90	200	152	270	18	265	57	23	310	35	120	M12	8
	110	225	191	270	18	302	68	23	350	35	120	M12	8



DN 15-65



DN 80-100



DN 150

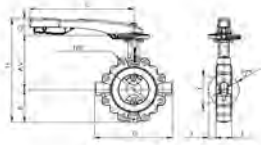


Type 065 Lug Style Butterfly Valve - Hand Lever SYGEF Plus HP

Model:

- ANSI 150 Lug Connection
- PTFE liner
- PFA overmoulded stainless steel disk

Inch	DN	PN	Code	Weight	H	B	AV	Q	D	Y	X	E	L
(inch)		(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
2	50	16	160 065 000	3.700	245	68	134	43	162	26	9	43	240
3	80	16	160 065 002	6.700	295	92	160	43	216	66	17	46	240
4	100	16	160 065 003	9.900	325	107	175	43	254	86	24	52	340
6	150	16	160 065 004	13.500	395	134	210	51	315	140	47	56	340



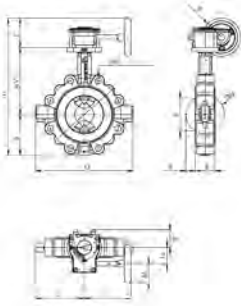


Type 065 Lug Style Butterfly Valve - Gear Operated SYGEF Plus HP

Model:

- ANSI 150 Lug Connection
- PTFE liner
- PFA overmoulded stainless steel disk

Inch (inch)	DN	PN (bar)	Code	Weight (kg)
2	50	16	160 065 200	4.000
3	80	16	160 065 202	7.000
4	100	16	160 065 203	10.100
6	150	16	160 065 204	13.800
8/9	200	10	160 065 205	23.200
10	250	10	160 065 206	33.950
12	300	10	160 065 207	48.450
14	350	6	160 065 208	92.400



Inch (inch)	DN	H (mm)	B (mm)	AV (mm)	C (mm)	D (mm)	Y (mm)	X (mm)	E (mm)	L (mm)	P (mm)	N (mm)	W (mm)	n x F
2	50	279	68	134	77	162	26	9	43	126	48	43	50	8 x dia 7
3	80	329	92	160	77	216	66	17	46	126	48	43	50	8 x dia 9
4	100	359	107	175	77	254	86	24	52	126	48	43	50	8 x dia 9
6	150	454	134	210	110	315	140	47	56	189	48	43	80	8 x dia 9
8/9	200	511	162	239	110	389	191	70	60	189	48	43	80	8 x 3/4" UNC
10	250	633	199	275	159	483	241	91	68	219	56	50	125	8 x dia 13
12	300	699	230	310	159	543	290	111	78	219	56	50	125	8 x dia 13
14	350	796	254	349	193	564	330	131	78	371	83	80	150	12 x 1" UNC

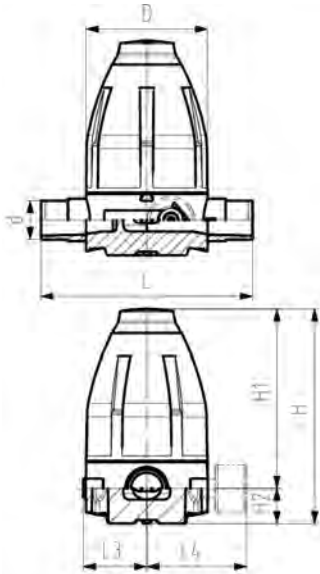
Actuated valves



SYGEF Plus
Pressure reducing valve type 582
With butt fusion spigots metric
Without manometer

Model:

- Diaphragm PTFE/EPDM
 - Integrated stainless steel mounting inserts
 - 0.5-9.0 bar (7-130 psi)
- 0.3-3.0 bar (4-44 psi) on request
 Manometer on request



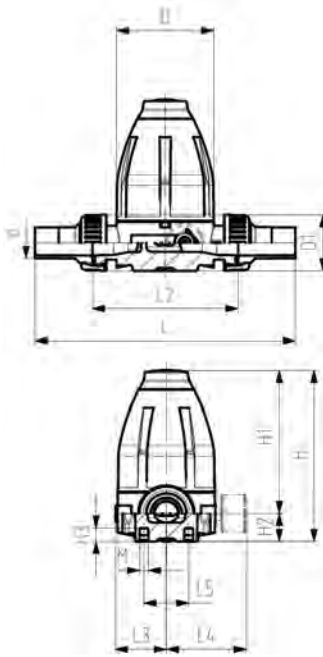
d	DN	PN	O-rings	D	H	H1	H2	H3	L	L3	M	closest inch
(mm)	(mm)	(bar)	FKM	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(inch)
			Code									
20	15	10	180 582 012	79	132	111	21	14	150	42	M6	½
25	20	10	180 582 013	100	177	148	29	14	190	53	M6	¾
32	25	10	180 582 014	100	177	148	29	14	190	53	M6	1
40	32	10	180 582 015	147	251	207	44	21	240	76	M8	1 ¼
50	40	10	180 582 016	147	251	207	44	21	240	76	M8	1 ½
63	50	10	180 582 017	147	251	207	44	21	260	76	M8	2



SYGEF Plus
Pressure reducing valve type 582
Unions with butt fusion spigots metric
Without manometer

Model:

- Diaphragm PTFE/EPDM
 - Integrated stainless steel mounting inserts
 - 0.5-9.0 bar (7-130 psi)
- 0.3-3.0 bar (4-44 psi) on request
 Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings FKM Code
20	15	10	180 582 512
25	20	10	180 582 513
32	25	10	180 582 514
40	32	10	180 582 515
50	40	10	180 582 516
63	50	10	180 582 517

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L2 (mm)	L3 (mm)	L5 (mm)	M	closest inch (inch)
20	79	132	111	21	12	226	120	42	40	M6	½
25	100	177	148	29	14	262	150	53	46	M6	¾
32	100	177	148	29	14	268	150	53	46	M6	1
40	147	251	207	44	21	329	205	76	65	M8	1 ¼
50	147	251	207	44	21	335	205	76	65	M8	1 ½
63	147	251	207	44	21	341	205	76	65	M8	2



SYGEF Plus
Diaphragm valve DIASTAR Ten
FC (Fail safe to close)
Unions with butt fusion spigots metric

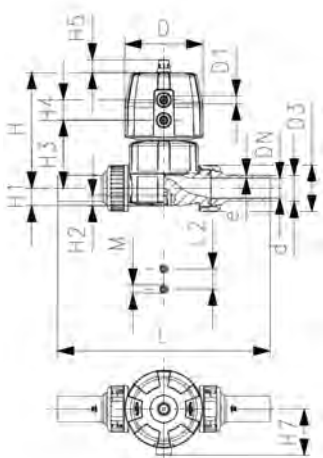
Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

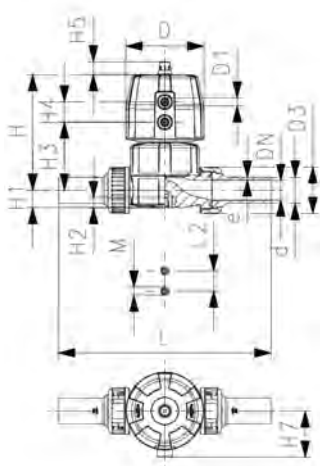
- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FKM Code	Weight (kg)
20	15	10	125	180 624 132	0.761	180 624 152	1.100
25	20	10	271	180 624 133	1.201	180 624 153	1.760
32	25	10	481	180 624 134	1.563	180 624 154	2.610
40	32	10	759	180 624 135	2.623	180 624 155	3.760
50	40	10	1263	180 624 136	4.323	180 624 156	6.220
63	50	6	1728	180 624 137	5.365	180 624 157	7.800

table continued on the next page



d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	e	Lift = Hx
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
20	68	⅜	101	14	12	60	24	16	43	196	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	96	⅜	143	22	12	84	25	16	57	234	25	M6	2.4	13
40	120	⅝	173	26	15	99	26	26	69	260	45	M8	2.4	15
50	150	⅝	214	32	15	119	36	26	88	284	45	M8	3.0	19
63	150	⅝	226	39	15	132	36	26	88	321	45	M8	3.0	23

d	closest inch
(mm)	(inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



SYGEF Plus
Diaphragm valve DIASTAR Ten
FC (Fail safe to close)
With butt fusion spigots metric

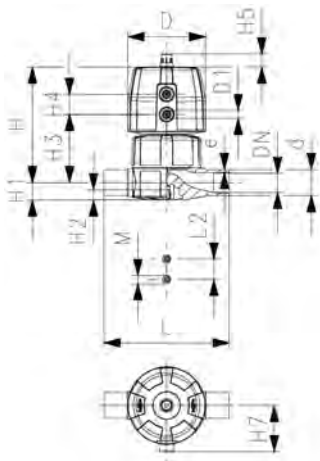
Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

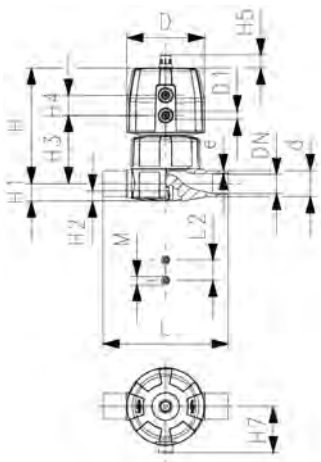
Working Pressure: **one side**



d	DN	PN	kv-value	PTFE/EPDM	Weight	PTFE/FKM	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)	Code	(kg)
			(L/min)				
20	15	10	125	180 625 132	0.668	180 625 152	0.541
25	20	10	271	180 625 133	1.113	180 625 153	1.191
32	25	10	481	180 625 134	1.402	180 625 154	1.403
40	32	10	759	180 625 135	2.242	180 625 155	2.243
50	40	10	1263	180 625 136	4.367	180 625 156	3.826
63	50	6	1728	180 625 137	4.635	180 625 157	4.636

d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	e	Lift = Hx
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
20	68	⅜	101	14	12	60	24	16	43	124	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	96	⅜	143	22	12	84	25	16	57	154	25	M6	2.4	13
40	120	⅝	173	26	15	99	26	26	69	174	45	M8	2.4	15
50	150	⅝	214	32	15	119	36	26	88	194	45	M8	3.0	19
63	150	⅝	226	39	15	132	36	26	88	224	45	M8	3.0	23

table continued on the next page



d (mm)	closest inch (inch)
20	¾
25	1
32	1 ¼
40	1 ½
50	2
63	2 ½



SYGEF Plus
Diaphragm valve DIASTAR Ten
FO (Fail safe to open)
Unions with butt fusion spigots metric

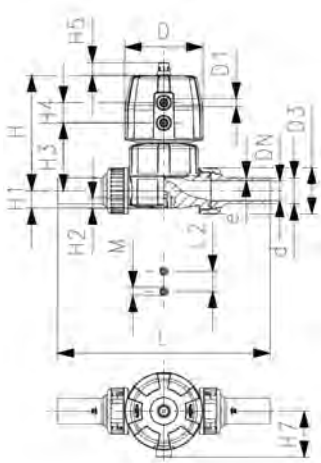
Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

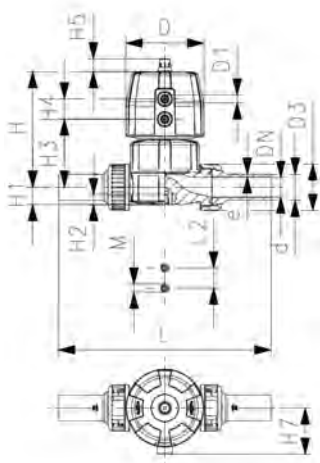
Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	PTFE/EPDM Code	Weight (kg)
20	15	10	125	180 644 132	0.711
25	20	10	271	180 644 133	1.189
32	25	10	481	180 644 134	1.350
40	32	10	759	180 644 135	2.263
50	40	10	1263	180 644 136	4.233
63	50	10	1728	180 644 137	5.275

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	¾	101	14	12	60	24	16	43	196	25	M6	1.9	7
25	96	¾	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	96	¾	143	22	12	84	25	16	57	234	25	M6	2.4	13
40	120	¾	173	26	15	99	26	26	69	260	45	M8	2.4	15
50	150	¾	214	32	15	119	36	26	69	284	45	M8	3.0	19
63	150	¾	226	39	15	132	36	26	69	321	45	M8	3.0	23

table continued on the next page



d **closest**
(mm) **inch**
 (inch)

20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2



SYGEF Plus
Diaphragm valve DIASTAR Ten
FO (Fail safe to open)
With butt fusion spigots metric

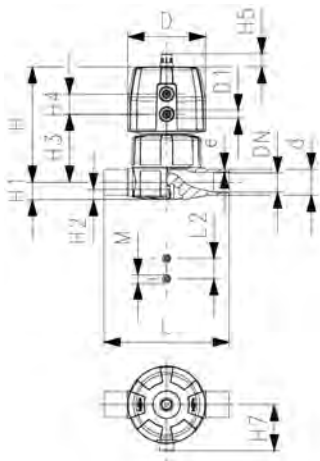
Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **one side**



d	DN	PN	kv-value	PTFE/EPDM	Weight
(mm)	(mm)	(bar)	(Δp=1 bar)	Code	(kg)
			(l/min)		
20	15	10	125	180 645 132	0.618
25	20	10	271	180 645 133	1.016
32	25	10	481	180 645 134	1.222
40	32	10	759	180 645 135	1.882
50	40	10	1263	180 645 136	3.735
63	50	10	1728	180 645 137	4.545

d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	e	Lift = Hx
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	68	⅞	101	14	12	60	24	16	43	124	25	M6	1.9	7
25	96	⅞	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	96	⅞	143	22	12	84	25	16	57	154	25	M6	2.4	13
40	120	⅞	173	26	15	99	26	26	69	174	45	M8	2.4	15
50	150	⅞	214	32	15	119	36	26	88	194	45	M8	3.0	19
63	150	⅞	226	39	15	132	36	26	88	224	45	M8	3.0	23

d **closest**
(mm) **inch**
 (inch)

20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2



SYGEF Plus
Diaphragm valve DIASTAR Ten
DA (Double acting)
With butt fusion spigots metric

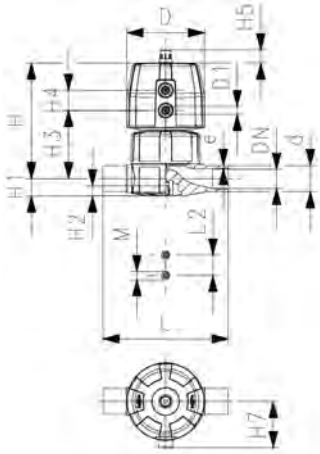
Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	SP	Weight (kg)
20	15	10	125	180 655 132	1	0.602
25	20	10	271	180 655 133	1	0.980
32	25	10	481	180 655 134	1	1.192
40	32	10	759	180 655 135	1	1.822
50	40	10	1263	180 655 136	1	2.985
63	50	10	1728	180 655 137	1	3.795

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	1.9	7
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	2.4	13
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	2.4	15
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	3.0	19
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	3.0	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



SYGEF Plus
Diaphragm valve DIASTAR Ten
DA (Double acting)
Unions with butt fusion spigots metric

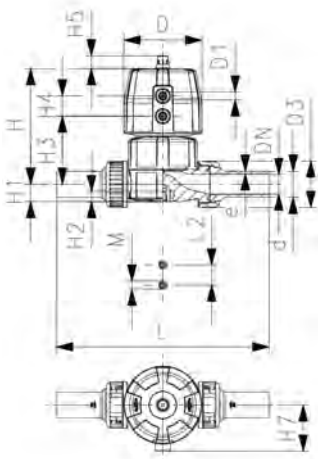
Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	SP	Weight (kg)
20	15	10	125	180 654 132	1	0.695
25	20	10	271	180 654 133	1	1.153
32	25	10	481	180 654 134	1	1.396
40	32	10	759	180 654 135	1	2.203
50	40	10	1263	180 654 136	1	3.483
63	50	10	1728	180 654 137	1	4.525

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	196	25	M6	1.9	7
25	96	3/8	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	96	1/2	143	22	12	84	25	16	57	234	25	M6	2.4	13
40	120	5/8	173	26	15	99	26	26	69	260	45	M8	2.4	15
50	150	3/4	214	32	15	119	36	26	69	284	45	M8	3.0	19
63	150	1/2	226	39	15	132	36	26	69	321	45	M8	3.0	23

d (mm)	closest inch (inch)
20	3/8
25	1/2
32	1
40	1 1/4
50	1 1/2
63	2



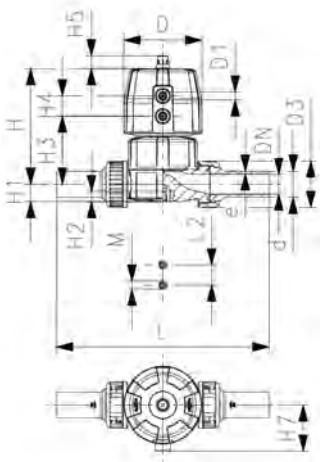
SYGEF Plus
Diaphragm valve DIASTAR Sixteen
FC (Fail safe to close)
Unions with butt fusion spigots metric

Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length
- Ideally suited for High Purity applications, not recommended for oxidizing acids
- **For water use only**

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	SP	Weight (kg)
20	15	16	125	180 634 132	1	1.172
25	20	16	271	180 634 133	1	1.381
32	25	16	481	180 634 134	1	2.225
40	32	16	759	180 634 135	1	3.730
50	40	16	1263	180 634 136	1	5.786
63	50	10	1728	180 634 137	1	6.880

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	96	⅜	127	14	12	68	25	16	57	196	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	120	⅜	167	22	12	93	26	26	69	234	25	M6	2.4	13
40	150	⅜	196	26	15	101	36	26	88	260	45	M8	2.4	15
50	180	⅜	239	32	15	124	37	26	103	284	45	M8	3.0	19
63	180	⅜	251	39	15	137	37	26	103	321	45	M8	3.0	23

d (mm)	closest inch (inch)
20	⅜
25	¾
32	1
40	1 ¼
50	1 ½
63	2



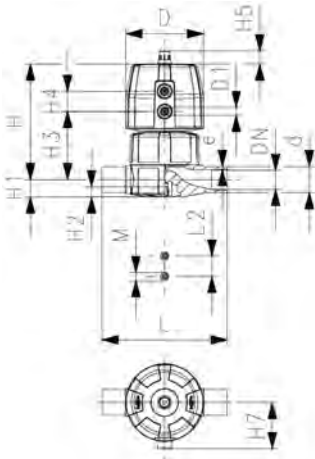
SYGEF Plus
Diaphragm valve DIASTAR Sixteen
FC (Fail safe to close)
With butt fusion spigots metric

Model:

- Material: PVDF-HP
- Ideally suited for High Purity applications, not recommended for oxidizing acids
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- **For water use only**

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	SP	Weight (kg)
20	15	16	125	180 635 132	1	1.259
25	20	16	271	180 635 133	1	1.208
32	25	16	481	180 635 134	1	2.021
40	32	16	759	180 635 135	1	3.349
50	40	16	1263	180 635 136	1	5.288
63	50	10	1728	180 635 137	1	6.150

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	96	1/8	127	14	12	68	25	16	57	124	25	M6	1.9	7
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	120	1/8	167	22	12	93	26	26	69	154	25	M6	2.4	13
40	150	1/4	196	26	15	101	36	26	88	174	45	M8	2.4	15
50	180	1/4	239	32	15	124	37	26	103	194	45	M8	3.0	19
63	180	1/4	251	39	15	137	37	26	103	224	45	M8	3.0	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



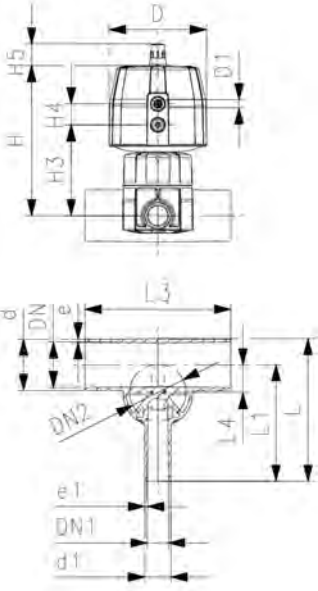
SYGEF Plus
Diaphragm valve DIASTAR Sixteen
FC (Fail safe to close)
With butt fusion spigots metric

Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Smallest possible dead space
- Ideally suited for High Purity applications, not recommended for oxidizing acids
- **For water use only**

Option:

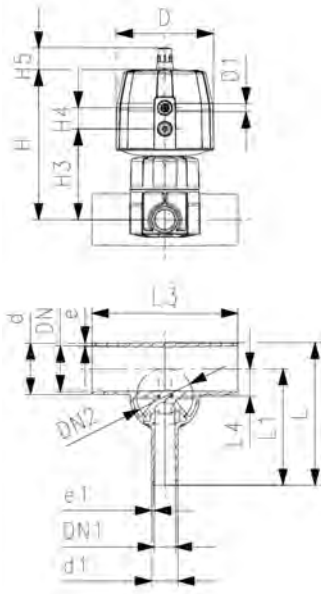
- Individual configuration of the valve
- Comprehensive range of accessories available
- * Available on request



d	d1	DN	DN1	Valve Size d	PN	kv-value	PTFE/EPDM Code	SP	Weight
(mm)	(mm)	(mm)	(mm)	(mm)	(bar)	($\Delta p=1$ bar)			(kg)
						(l/min)			
20	20	15	15	20	16	57	180 639 301	1	1.112
25	20	20	15	25	16	89	180 639 303	1	1.230
25	25	20	20	25	16	118	180 639 304	1	1.233
32	20	25	15	25	16	80	180 639 307	1	1.283
32	25	25	20	25	16	105	180 639 308	1	1.287
32	32	25	25	32	16	231	180 639 309	1	2.063
40	20	32	15	32	16	85	180 639 312	1	2.117
40	25	32	20	32	16	119	180 639 313	1	2.121
40	32	32	25	32	16	153	180 639 314	1	2.139
40	40	32	32	32	16	187	180 639 315	1	2.168
50	20	40	15	25	16	86	180 639 318	1	1.402
50	25	40	20	32	16	160	180 639 319	1	2.207
50	32	40	25	32	16	206	180 639 320	1	2.212
50	40	40	32	63	10	524	180 639 321	1	6.022
50	50	40	40	63	10	667	180 639 322	1	6.032
63	20	50	15	25	16	84	180 639 325	1	1.479
63	25	50	20	32	16	150	180 639 326	1	2.292
63	32	50	25	32	16	184	180 639 327	1	2.298
63	40	50	32	63	10	471	180 639 328	1	6.199
63	50	50	40	63	10	610	180 639 329	1	6.264
63	63	50	50	63	10	747	180 639 330	1	6.277
90	20	80	15	32	16	82	180 639 341	1	2.577
90	25	80	20	32	16	103	180 639 342	1	2.584
90	32	80	25	32	16	129	180 639 343	1	2.600
90	50	80	40	63	10	623	180 639 345	1	6.717
90	63	80	50	63	10	696	180 639 346	1	6.745
110	20	100	15	32	16	78	180 639 351	1	2.847
110	25	100	20	32	16	103	180 639 352	1	2.853
110	32	100	25	32	16	131	180 639 353	1	2.870
110	50	100	40	63	10	604	180 639 355	1	7.133
110	63	100	50	63	10	661	180 639 356	1	7.163

d	D	D1	H	H3	H4	H5	L	L1	L3	L4	e	Lift = Hx	DN2	e1
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	96	3/8	130	71	25	16	117	96	162	12	1.9	7	15	2
25	96	3/8	131	72	25	16	133	108	162	16	1.9	10	20	2
25	96	3/8	131	72	25	16	133	108	162	16	1.9	10	20	2
32	96	3/8	135	76	25	16	142	120	162	19	2.4	10	20	2
32	96	3/8	135	76	25	16	142	120	162	19	2.4	10	20	2
32	120	1/2	167	93	26	26	145	120	160	19	2.4	13	25	2
40	120	1/2	175	101	26	26	149	128	180	23	2.4	13	25	2
40	120	1/2	175	101	26	26	149	128	180	23	2.4	13	25	2
40	120	1/2	175	101	26	26	149	128	180	23	2.4	13	25	2
40	120	1/2	175	101	26	26	174	153	180	23	2.4	13	25	2

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d	D	D1	H	H3	H4	H5	L	L1	L3	L4	e	Lift = Hx	DN2	e1
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
50	96	1/8	148	90	25	16	160	134	180	27	3.0	10	20	2
50	120	1/8	180	106	26	26	160	134	180	28	3.0	13	25	2
50	120	1/8	180	106	26	26	160	134	180	28	3.0	13	25	2
50	180	1/4	249	135	37	26	209	169	209	33	3.0	23	50	2
50	180	1/4	249	135	37	26	209	169	209	33	3.0	23	50	3
63	96	1/8	155	96	25	16	177	144	180	33	3.0	10	20	2
63	120	1/8	187	113	26	26	177	144	180	35	3.0	13	25	2
63	120	1/8	187	113	26	26	177	144	180	35	3.0	13	25	2
63	180	1/4	255	141	37	26	225	192	220	39	3.0	23	50	2
63	180	1/4	255	141	37	26	225	192	220	39	3.0	23	50	3
63	180	1/4	255	141	37	26	225	192	220	39	3.0	23	50	3
90	120	1/8	200	126	26	26	205	159	190	47	4.3	13	25	2
90	120	1/8	200	126	26	26	205	159	190	47	4.3	13	25	2
90	120	1/8	200	126	26	26	205	159	190	47	4.3	13	25	2
90	180	1/4	269	155	37	26	254	207	250	51	4.3	23	50	3
90	180	1/4	269	155	37	26	254	207	250	51	4.3	23	50	3
110	120	1/8	209	135	26	26	227	171	190	56	5.3	13	25	2
110	120	1/8	209	135	26	26	227	171	190	56	5.3	13	25	2
110	120	1/8	209	135	26	26	227	171	190	56	5.3	13	25	2
110	180	1/4	279	165	37	26	276	219	250	60	5.3	23	50	3
110	180	1/4	279	165	37	26	276	219	250	60	5.3	23	50	3



SYGEF Plus
Diaphragm valve DIASTAR TenPlus
FC (Fail safe to close)
Unions with butt fusion spigots metric

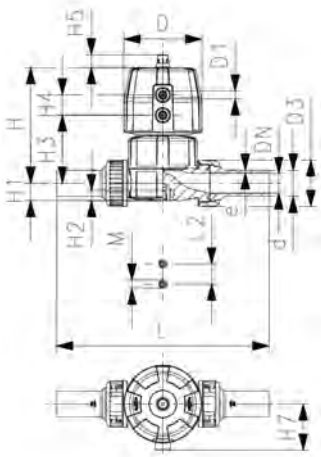
Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

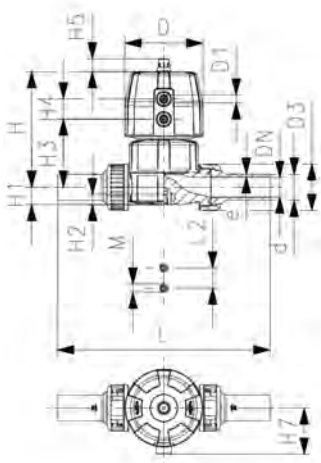
Working Pressure: **both sides**



d	DN	PN	kv-value	PTFE/EPDM	SP	Weight	PTFE/FKM	SP	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code		(kg)	Code		(kg)
20	15	10	125	181 684 132	1	1.172	181 684 152	1	1.172
25	20	10	271	181 684 133	1	1.381	181 684 153	1	1.381
32	25	10	481	181 684 134	1	2.225	181 684 154	1	2.225
40	32	10	759	181 684 135	1	3.730	181 684 155	1	3.730
50	40	10	1263	181 684 136	1	5.786	181 684 156	1	5.786
63	50	10	1728	181 684 137	1	6.880	181 684 157	1	6.880

d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	e	Lift = Hx
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
20	96	1/8	127	14	12	68	25	16	57	196	25	M6	1.9	7
25	96	1/8	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	120	1/8	167	22	12	93	26	26	69	234	25	M6	2.4	13
40	150	1/4	196	26	15	101	36	26	88	260	45	M8	2.4	15
50	180	1/4	239	32	15	124	37	26	103	284	45	M8	3.0	19
63	180	1/4	251	39	15	137	37	26	103	321	45	M8	3.0	23

table continued on the next page



d (mm)	closest inch (inch)
20	¾
25	1
32	1 ¼
40	1 ½
50	2
63	2 ¼



SYGEF Plus
Diaphragm valve DIASTAR TenPlus
FC (Fail safe to close)
With butt fusion spigots metric

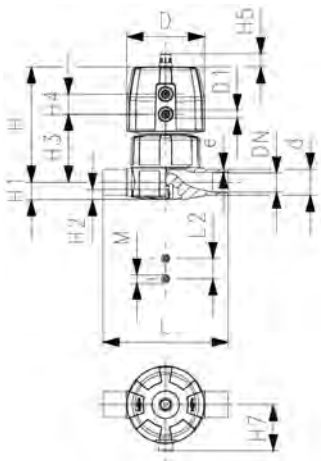
Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **both sides**



d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	PTFE/EPDM Code	SP	Weight (kg)	PTFE/FKM Code	SP	Weight (kg)
20	15	10	125	181 685 132	1	1.079	181 685 152	1	1.079
25	20	10	271	181 685 133	1	1.208	181 685 153	1	1.208
32	25	10	481	181 685 134	1	2.021	181 685 154	1	2.021
40	32	10	759	181 685 135	1	3.349	181 685 155	1	3.349
50	40	10	1263	181 685 136	1	5.288	181 685 156	1	5.288
63	50	10	1728	181 685 137	1	6.150	181 685 157	1	6.150

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M (mm)	e (mm)	Lift = Hx (mm)
20	96	¾	127	14	12	68	25	16	57	124	25	M6	1.9	7
25	96	¾	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	120	½	167	22	12	93	26	26	69	154	25	M6	2.4	13
40	150	¾	196	26	15	101	36	26	88	174	45	M8	2.4	15
50	180	¾	239	32	15	124	37	26	103	194	45	M8	3.0	19
63	180	¾	251	39	15	137	37	26	103	224	45	M8	3.0	23

d (mm)	closest inch (inch)
20	¾
25	1
32	1 ¼
40	1 ½
50	2
63	2 ¼



SYGEF Plus
Diaphragm valve DIASTAR TenPlus
FC (Fail safe to close)
With butt fusion spigots metric

Model:

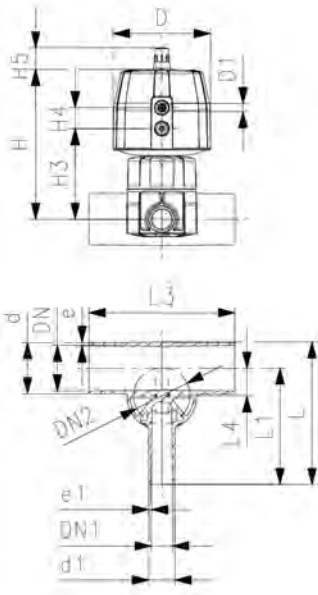
- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Smallest possible dead space

Option:

- Individual configuration of the valve
- Comprehensive range of accessories available

Working Pressure: **both sides**

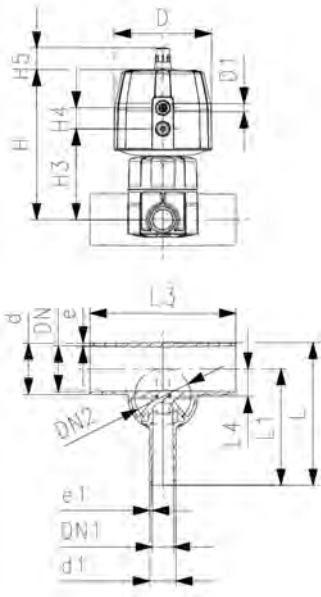
* Available on request



d (mm)	d1 (mm)	DN (mm)	DN1 (mm)	Valve Size d (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	SP	Weight (kg)
20	20	15	15	20	10	57	181 689 301	1	1.112
25	20	20	15	25	10	89	181 689 303	1	1.230
25	25	20	20	25	10	118	181 689 304	1	1.233
32	20	25	15	25	10	80	181 689 307	1	1.283
32	25	25	20	25	10	105	181 689 308	1	1.287
32	32	25	25	32	10	231	181 689 309	1	2.391
40	20	32	15	32	10	85	181 689 312	1	2.117
40	25	32	20	32	10	119	181 689 313	1	2.121
40	32	32	25	32	10	153	181 689 314	1	2.139
40	40	32	32	32	10	187	181 689 315	1	2.168
50	20	40	15	25	10	86	181 689 318	1	1.402
50	25	40	20	32	10	160	181 689 319	1	2.207
50	32	40	25	32	10	206	181 689 320	1	2.212
50	40	40	32	63	10	524	181 689 321	1	6.022
50	50	40	40	63	10	667	181 689 322	1	6.032
63	20	50	15	25	10	84	181 689 325	1	1.479
63	25	50	20	32	10	150	181 689 326	1	2.292
63	32	50	25	32	10	184	181 689 327	1	2.298
63	40	50	32	63	10	471	181 689 328	1	6.199
63	50	50	40	63	10	610	181 689 329	1	6.264
63	63	50	50	63	10	747	181 689 330	1	6.277
90	20	80	15	32	10	82	181 689 341	1	2.577
90	25	80	20	32	10	103	181 689 342	1	2.584
90	32	80	25	32	10	129	181 689 343	1	2.600
90	50	80	40	63	10	623	181 689 345	1	6.717
90	63	80	50	63	10	696	181 689 346	1	6.745
110	20	100	15	32	10	78	181 689 351	1	2.847
110	25	100	20	32	10	103	181 689 352	1	2.853
110	32	100	25	32	10	131	181 689 353	1	2.870
110	50	100	40	63	10	604	181 689 355	1	7.133
110	63	100	50	63	10	661	181 689 356	1	7.163

d (mm)	PTFE/FKM Code	SP	Weight (kg)
20	181 689 501	1	1.112
25	181 689 503	1	1.230
25	181 689 504	1	1.233
32	181 689 507	1	1.283
32	181 689 508	1	1.287
32	181 689 509	1	2.063
40	181 689 512	1	2.117
40	181 689 513	1	2.121
40	181 689 514	1	2.139
40	181 689 515	1	2.168
50	181 689 518	1	1.402
50	181 689 519	1	2.207

table continued on the next page



d (mm)	PTFE/FKM Code	SP	Weight (kg)
50	181 689 520	1	2.212
50	181 689 521	1	6.022
50	181 689 522	1	6.032
63	181 689 525	1	1.479
63	181 689 526	1	2.292
63	181 689 527	1	2.298
63	181 689 528	1	6.199
63	181 689 529	1	6.264
63	181 689 530	1	6.277
90	181 689 541	1	2.577
90	181 689 542	1	2.584
90	181 689 543	1	2.600
90	181 689 545	1	6.717
90	181 689 546	1	6.745
110	181 689 551	1	2.847
110	181 689 552	1	2.853
110	181 689 553	1	2.870
110	181 689 555	1	7.133
110	181 689 556	1	7.163

d (mm)	D (mm)	D1 (inch)	H (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	Lift = Hx (mm)	DN2 (mm)	e1 (mm)
20	96	⅜	130	71	25	16	117	96	162	12	1.9	7	15	2
25	96	⅜	131	72	25	16	133	108	162	16	1.9	10	20	2
25	96	⅜	131	72	25	16	133	108	162	16	1.9	10	20	2
32	96	⅜	135	76	25	16	142	120	162	19	2.4	10	20	2
32	96	⅜	135	76	25	16	142	120	162	19	2.4	10	20	2
32	120	⅜	167	93	26	26	145	120	160	19	2.4	13	25	2
40	120	⅜	175	101	26	26	149	128	180	23	2.4	13	25	2
40	120	⅜	175	101	26	26	149	128	180	23	2.4	13	25	2
40	120	⅜	175	101	26	26	174	153	180	23	2.4	13	25	2
50	96	⅜	148	90	25	16	160	134	180	27	3.0	10	20	2
50	120	⅜	180	106	26	26	160	134	180	28	3.0	13	25	2
50	120	⅜	180	106	26	26	160	134	180	28	3.0	13	25	2
50	180	¼	249	135	37	26	209	169	209	33	3.0	23	50	2
50	180	¼	249	135	37	26	209	169	209	33	3.0	23	50	3
63	96	⅜	155	96	25	16	177	144	180	33	3.0	10	20	2
63	120	⅜	187	113	26	26	177	144	180	35	3.0	13	25	2
63	120	⅜	187	113	26	26	177	144	180	35	3.0	13	25	2
63	180	¼	255	141	37	26	225	192	220	39	3.0	23	50	2
63	180	¼	255	141	37	26	225	192	220	39	3.0	23	50	3
63	180	¼	255	141	37	26	225	192	220	39	3.0	23	50	3
90	120	⅜	200	126	26	26	205	159	190	47	4.3	13	25	2
90	120	⅜	200	126	26	26	205	159	190	47	4.3	13	25	2
90	120	⅜	200	126	26	26	205	159	190	47	4.3	13	25	2
90	180	¼	269	155	37	26	254	207	250	51	4.3	23	50	3
90	180	¼	269	155	37	26	254	207	250	51	4.3	23	50	3
110	120	⅜	209	135	26	26	227	171	190	56	5.3	13	25	2
110	120	⅜	209	135	26	26	227	171	190	56	5.3	13	25	2
110	180	¼	279	165	37	26	276	219	250	60	5.3	23	50	3
110	180	¼	279	165	37	26	276	219	250	60	5.3	23	50	3



SYGEF Plus
Diaphragm valve type DIASTAR 025
Function FC (Fail safe to close)
With fixed flanges PVDF metric

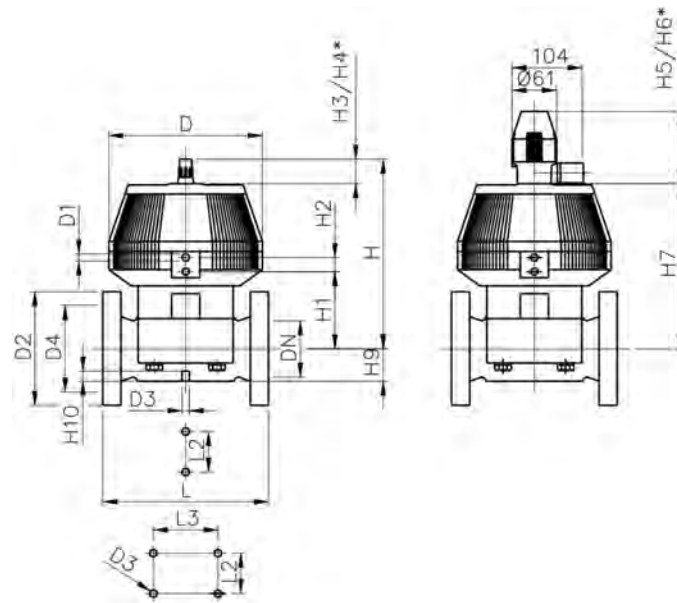
Model:

- Material: PVDF-HP
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: **both sides**
- * With backing flanges PP-V
- ** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
*	75	2 ½	65	10	992	199 025 447	13.600
**	90	3	80	10	1700	199 025 448	17.400
	110	4	100	6	2700	199 025 449	24.700

	d (mm)	D (mm)	D1_G (inch)	D2 (mm)	D3[M] (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	H7 (mm)	H9 (mm)
*	75	280	¼	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69

	d (mm)	H10 (mm)	L (mm)	L2 (mm)
*	75	15	290	70
**	90	15	310	120
	110	20	350	120





SYGEF Plus
Diaphragm valve type DIASTAR 025
Function FC (Fail safe to close)
With fixed flanges PVDF Inch ANSI

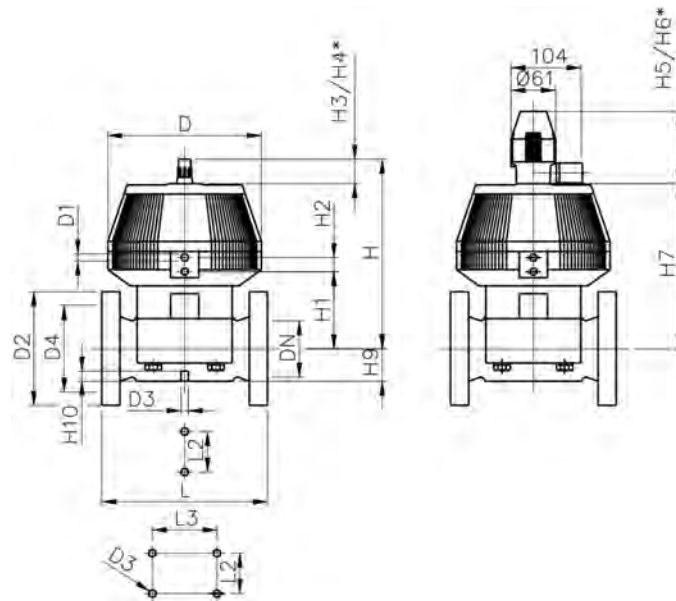
Model:

- Material: PVDF-HP
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: **both sides**
- * With backing flanges PP-V
- ** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d	Size	DN	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
					(L/min)		
*		2 ½	65	10	992	199 025 387	14.200
**	90	3	80	10	1700	199 025 448	17.400
		4	100	6	2700	199 025 389	26.500

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20

	L	L2
	(mm)	(mm)
*	290	70
**	310	120
	350	120





SYGEF Plus
Diaphragm valve type DIASTAR 025
Function FO (Fail safe to open)
With fixed flanges PVDF metric

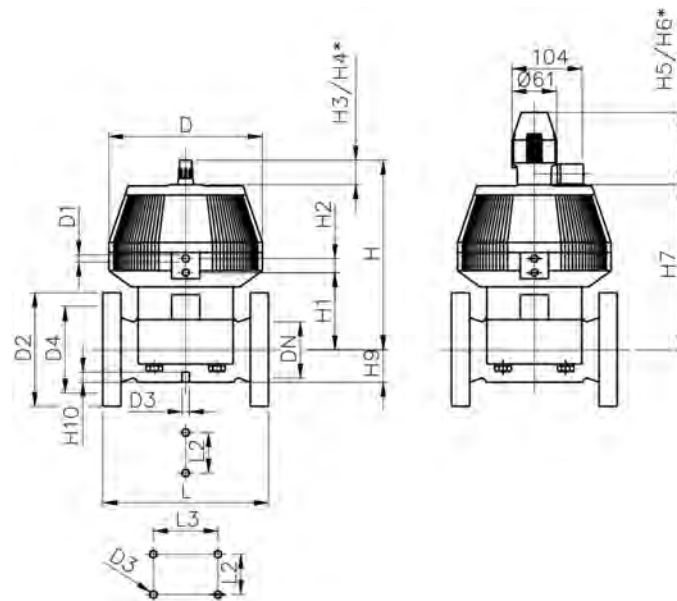
Model:

- Material: PVDF-HP
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: on one side
- * With backing flanges PP-V
- ** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
*	75	2 ½	65	10	992	199 025 457	13.600
**	90	3	80	10	1700	199 025 458	17.400
	110	4	100	6	2700	199 025 459	24.700
**	160	6	150	6	6033	199 025 460	35.000

	d (mm)	D (mm)	D1_G (inch)	D2 (mm)	D3[M] (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	H7 (mm)	H9 (mm)
*	75	280	¼	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69
**	160	335	¼	285	12	240	455	237	24	46	100	129	195	409	108

	d (mm)	H10 (mm)	L (mm)	L2 (mm)	L3 (mm)
*	75	15	290	70	
**	90	15	310	120	
	110	20	350	120	
**	160	20	480	100	200





SYGEF Plus
Diaphragm valve type DIASTAR 025
Function FO (Fail safe to open)
With fixed flanges PVDF Inch ANSI

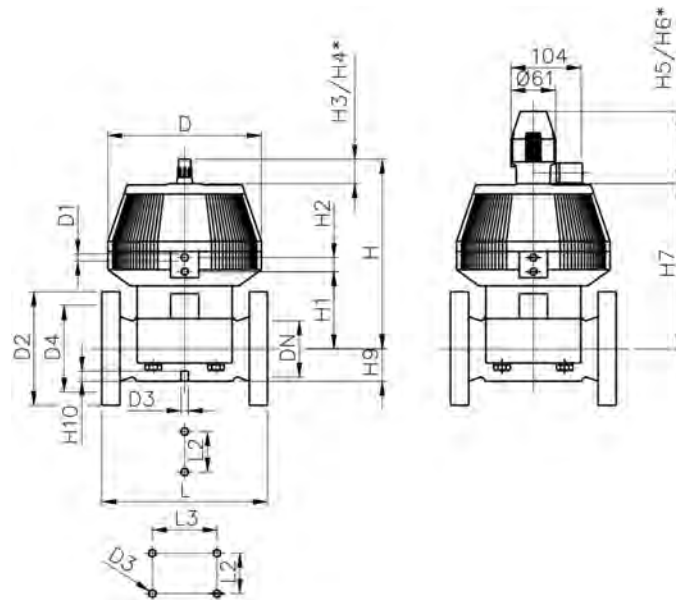
Model:

- Material: PVDF-HP
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side
- * With backing flanges PP-V
- ** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)
*		2 ½	65	10	992	199 025 397	12.200
**	90	3	80	10	1700	199 025 458	17.400
		4	100	6	2700	199 025 399	23.400
**	160	6	150	6	6033	199 025 460	35.000

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20
**	335	¼	285	12	240	455	237	24	46	100	129	195	409	108	20

	L	L2	L3
	(mm)	(mm)	(mm)
*	290	70	
**	310	120	
	350	120	
**	480	100	200





SYGEF Plus
Diaphragm valve type DIASTAR 025
Function DA (Double acting)
With fixed flanges PVDF metric

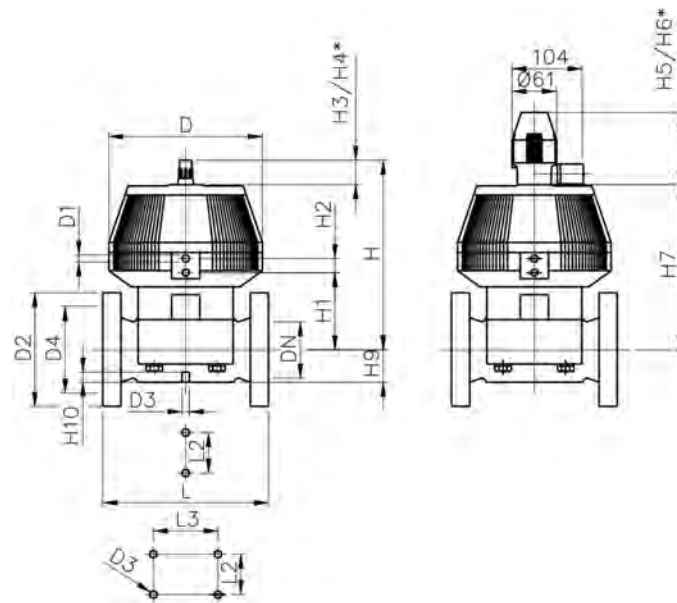
Model:

- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: on one side
- * With backing flanges PP-V
- ** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
*	75	65	2 ½	10	992	199 025 467	13.600
**	90	80	3	10	1700	199 025 468	17.400
	110	100	4	6	2700	199 025 469	24.700
**	160	150	6	6	6033	199 025 470	35.000

	d (mm)	D (mm)	D1_G (inch)	D2 (mm)	D3[M] (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	H7 (mm)	H9 (mm)
*	75	280	¼	185	8	145	344	148	24	46	100	125	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69
**	160	335	¼	285	12	240	455	237	24	46	100	129	195	409	108

	d (mm)	H10 (mm)	L (mm)	L2 (mm)	L3 (mm)
*	75	15	290	70	
**	90	15	310	120	
	110	20	350	120	
**	160	20	480	100	200





SYGEF Plus
Diaphragm valve type DIASTAR 025
Function DA (Double acting)
With fixed flanges PVDF Inch ANSI

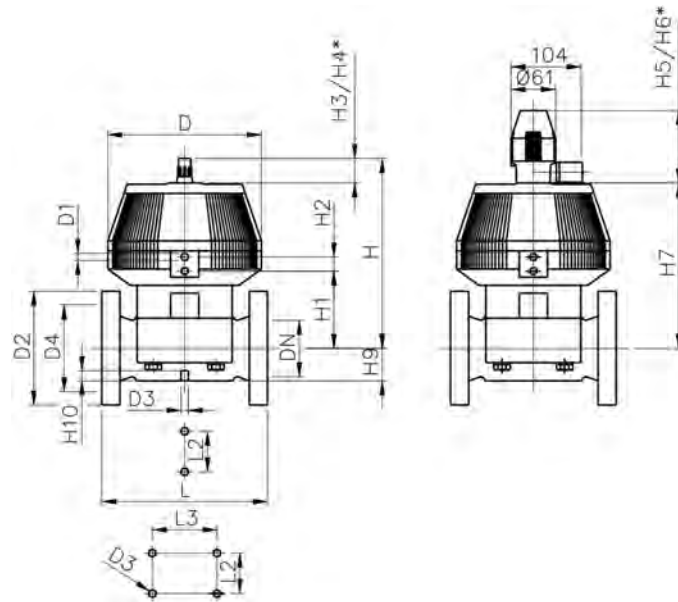
Model:

- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side
- * With backing flanges PP-V
- ** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d	Size	DN	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
	(l/min)						
*		2 ½	65	10	992	199 025 407	13.600
**	90	3	80	10	1700	199 025 468	17.400
		4	100	6	2700	199 025 409	24.100
**	160	6	150	6	6033	199 025 470	35.000

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	125	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20
**	335	¼	285	12	240	455	237	24	46	100	129	195	409	108	20

	L	L2	L3
	(mm)	(mm)	(mm)
*	290	70	
**	310	120	
	350	120	
**	480	100	200

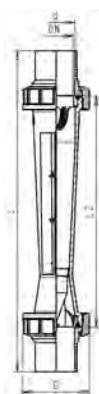


Special version PVDF-HP



Special version PVDF-HP
Float in PTFE without magnet
With fusion spigots BCF/IR

Type	d (mm)	DN (mm)	Scale range (l/h)	Scale range (gal/min)	Taper tube in Polysulfone O-rings in FKM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	G (inch)
SK 70	32	25	68 - 204	0.3 - 0.9	198 807 209	0.383	60	318	200	1 ½
SK 71	32	25	90 - 295	0.4 - 1.3	198 807 210	0.387	60	318	200	1 ½
SK 73	32	25	136 - 795	0.6 - 3.5	198 807 202	0.401	60	318	200	1 ½



Machines and Tools for Industrial Applications



System-Oriented Fusion Jointing Machines

Infrared plastic fusion jointing machines

IR-110 A Automated Fusion Machine and Accessories



IR-110 A Automated Fusion Machine

Model:

- Fully equipped automated infrared fusion machine with integrated working table for use under clean room conditions
- Welding of PVDF SYGEF (Standard/Plus), ECTFE SYGEF, PP grey PROGEF (Standard/Plus), PP-n PROGEF Natural, PE100 ecoFIT
- Dimensions d20-110 mm
- User friendly touch-screen interface 12.1" with various languages
- 4 USB interfaces, LAN Ethernet interface, 230 V Output
- Automated facer, clamping slide and heater
- Integrated video camera and temperature sensors
- Movable clamping units
- Clamping inserts d20-90 mm (8 pcs. per dimension)
- End caps PE d20-110 mm (4 pcs. per dimension)
- Shavings collection tray
- Transport box with integrated pallet
- 1-phase AC (50/60 Hz) 230V L/N/PE
- Power supply cable 230V EU Standard
- Torx key for facing blades (KW3)
- Cleaning brush
- Label printer
- Instruction manual

d-d (mm)	Code	SP	Weight (kg)
20 - 110	790 164 001	1	250.000



Clamping inserts

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.

d (mm)	Code	SP	Weight (kg)	Pieces
20	790 164 022	0	0.099	1
25	790 164 023	0	0.097	1
32	790 164 024	0	0.093	1
40	790 164 025	0	0.088	1
50	790 164 026	0	0.081	1
63	790 132 156	0	0.085	1
75	790 132 157	0	0.087	1
90	790 132 158	0	0.064	1



Set of facing knives

- A set includes two facing knives and six screws. Each facing knife has four blades. The blade may be turned three times before it must be replaced.

d-d (mm)	Code	SP	Weight (kg)	Pieces
20 - 110	790 132 061	0	0.007	2



Set of end caps

- A set includes 4 end caps. The end caps are different for each dimension. The ends of the pipe **must** be closed. The caps prevent heat loss due to airflow in the fusion zone and guarantee optimum fusion results of the pipe components.

d (mm)	Code	SP	Weight (kg)	Pieces
20	790 131 030	4	0.040	4
25	790 131 031	4	0.010	4
32	790 131 032	4	0.088	4
40	790 131 033	4	0.005	4
50	790 131 034	4	0.005	4
63	790 131 035	4	0.023	4
75	790 133 036	4	0.095	4
90	790 133 037	4	0.028	4
110	790 133 038	4	0.180	4

IR-315 A Automated Fusion Machine and Accessories



IR-315 A Automated Fusion Machine and Accessories

Model:

- Fully equipped automated infrared fusion machine and working table designed for industrial applications and clean room conditions
- Welding of PVDF SYGEF (Standard/Plus), PP grey PROGEF (Standard/Plus), PE100 ecoFIT (d≤d225 mm)
- Dimensions d110-315 mm
- Automated facer, clamping slide and heater
- Integrated cooling system
- User friendly touch-screen interface 12.1" with various languages
- 4 USB interfaces, LAN Ethernet interface, 230 V Output
- Integrated video camera and temperature sensors
- Clamping inserts d110-280 mm (8 pcs. per dimension)
- End caps PE d110-315 mm (4 pcs. per dimension)
- Transport cases with integrated Euro-pallet (fusion machine and working table)
- 3-phase AC (50/60 Hz) 400 V L1/L2/L3/N/PE
- Set of facing knives (2 pcs.)
- Torx key (T25) for facing knife
- Hexagon keys (10 mm + 8 mm)
- Fork key (24 mm)
- Cleaning brush
- Label printer (incl. ribbon 24 mm)
- Instruction manual

d-d (mm)	Code	Weight (kg)
110 - 315	790 165 001	1049.000



Clamping inserts

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.

d (mm)	Code	Weight (kg)	Pieces
110	790 165 010	1.500	1
125	790 165 011	1.400	1
140	790 165 012	1.300	1
160	790 165 013	1.300	1
180	790 165 014	1.200	1

table continued on the next page

d (mm)	Code	Weight (kg)	Pieces
200	790 165 015	1.100	1
225	790 165 016	1.000	1
250	790 165 017	0.900	1
280	790 165 018	0.700	1



Set of facing knives

- A set includes two facing knives and ten screws. Each facing knife has four blades. In case of a blunt blade the facing knife may be turned three times before it must be replaced.

d-d (mm)	Code	Weight (kg)	Pieces
110 - 315	790 165 549	0.100	2



Set of end caps

- A set includes 4 end caps. The end caps are different for each dimension. The ends of the pipe **must** be closed. The caps prevent heat loss due to airflow in the fusion zone and guarantee optimum fusion results of the pipe components.

d (mm)	Code	Weight (kg)	Pieces
110	790 133 038	0.180	4
125	790 133 039	0.150	4
140	790 133 040	0.180	4
160	790 133 041	0.045	4
180	790 133 494	0.400	4
200	790 133 042	0.080	4
225	790 133 043	0.400	4
250	790 134 151	0.400	4
280	790 134 152	0.400	4
315	790 134 153	0.400	4



Torx key with T-bar handle

- For facing knives

Description	Code	Weight (kg)
T25	790 133 577	0.063



Cleaning brush

Code	Weight (kg)
790 133 198	0.055

IR-63 Plus Fusion Jointing Machine and Accessories



IR-63 Plus Fusion Machine

Model:

- Fully-equipped manually operated infrared fusion machine with integrated remote welding unit
- Welding of PVDF SYGEF (Standard/Plus), ECTFE SYGEF, PP-H PROGEF (Standard/Plus), PP-n PROGEF Natural, PE100 ecoFIT, PFA
- Dimensions d20-63 mm
- Monochrome display with icons and various languages
- 2 USB interfaces
- Heating and facing element
- Clamping slide with movable clamping units
- Clamping inserts d20-63 mm (8 pcs. per dimension)
- End caps PE d20-63 mm (4 pcs. per dimension)
- Pipe stop
- Clean-room compatible accessory tray with tools
- Transport box
- 1-phase AC (50/60 Hz) 230V L/N/PE
- Power supply cable 230 V
- Extension cable for clamping slide, heater and facing tool for remote welding (5m each)
- Label printer
- Instruction manual

Note:

Clamping inserts PFA (inch) on request

d-d (mm)	Code	SP	Weight (kg)
20 - 63	790 131 005	1	50.000



Clamping inserts

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.

d (mm)	Code	SP	Weight (kg)	Pieces
20	790 131 038	1	0.140	1
25	790 131 039	1	0.090	1
32	790 131 040	1	0.052	1
40	790 131 041	1	0.074	1
50	790 131 042	1	0.100	1
63	790 131 043	1	0.035	1



Clamping inserts CONTAIN-IT Plus

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.
- 4x CONTAIN-IT Plus clamping inserts are needed for the two inner clamping devices.

d (mm)	D (mm)	Code	Weight (kg)	Pieces
20	50	790 131 090	0.060	1
25	50	790 131 091	0.060	1
32	63	790 131 092	0.060	1
40	75	790 131 093	0.050	1



Set of facing knives

- A set includes two facing knives and six screws. Each facing knife has four blades. The blade may be turned three times before it must be replaced.

d-d (mm)	Code	SP	Weight (kg)	Pieces
20 - 63	790 131 045	1	0.016	2



Set of end caps

- A set includes 4 end caps. The end caps are different for each dimension. The ends of the pipe **must** be closed. The caps prevent heat loss due to airflow in the fusion zone and guarantee optimum fusion results of the pipe components.

d (mm)	Code	SP	Weight (kg)	Pieces
20	790 131 030	4	0.040	4
25	790 131 031	4	0.010	4
32	790 131 032	4	0.088	4
40	790 131 033	4	0.005	4
50	790 131 034	4	0.005	4
63	790 131 035	4	0.023	4



Pipe stop

- The pipe stop defines the allowance when the pipes are clamped into position.

d-d (mm)	Code	Weight (kg)	Pieces
20 - 63	790 131 046	0.430	1



Extension cable for clamping slide

- The extension cable enables the fusion e. g. under the ceiling.

d-d (mm)	Code	Weight (kg)	Length (m)
20 - 63	790 131 047	0.700	5



Extension cable for heater

- The extension cable enables the fusion e. g. under the ceiling.

d-d (mm)	Code	Weight (kg)	Length (m)
20 - 63	790 131 049	0.767	5



Extension cable for facing tool

- The extension cable enables the fusion e. g. under the ceiling.

d-d (mm)	Code	Weight (kg)	Length (m)
20 - 63	790 131 048	0.438	5



Heater protection shield

- Protects the heater from plastic chips during the facing process.

Code	SP	Weight (kg)	Pieces
790 131 051	1	0.205	1

IR-110 Plus Fusion Jointing Machine and Accessories



IR-110 Plus Fusion Machine

Model:

- Fully-equipped manually operated infrared fusion machine for use under clean room conditions
- Welding of PVDF SYGEF (Standard/Plus), ECTFE SYGEF, PP-H PROGEF (Standard/Plus), PP-n PROGEF Natural, PE100 ecoFIT, PFA
- Dimensions d20-110 mm
- Monochrome display with icons and various languages
- 2 USB interfaces
- Heating and facing element
- Clamping slide with movable clamping units
- Clamping inserts d20-90 mm (8 pcs. per dimension)
- End caps PE d20-110 mm (4 pcs. per dimension)
- Pipe stop
- Clean-room compatible accessory tray with tools
- Transport box with integrated pallet
- 1-phase AC (50/60 Hz) 230V L/N/PE
- Power supply cable 230V
- Label printer
- Instruction manual

Note:

Clamping inserts PFA (inch) on request

d-d (mm)	Code	Weight (kg)
20 - 110	790 132 001	75.000



Clamping inserts

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.

d (mm)	Code	SP	Weight (kg)	Pieces
20	790 132 051	0	0.108	1
25	790 132 052	0	0.106	1
32	790 132 053	0	0.104	1
40	790 132 054	0	0.100	1
50	790 132 055	0	0.095	1
63	790 132 156	0	0.085	1
75	790 132 157	0	0.087	1
90	790 132 158	0	0.064	1



Clamping inserts CONTAIN-IT Plus

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.
- 4x CONTAIN-IT Plus clamping inserts are needed for the two inner clamping devices.

d (mm)	D (mm)	Code	Weight (kg)	Pieces
20	50	790 132 190	0.100	1
25	50	790 132 191	0.130	1
32	63	790 132 192	0.120	1
40	75	790 132 193	0.120	1
50	90	790 132 194	0.110	1



Set of facing knives

- A set includes two facing knives and six screws. Each facing knife has four blades. The blade may be turned three times before it must be replaced.

d-d (mm)	Code	SP	Weight (kg)	Pieces
20 - 110	790 132 061	0	0.007	2



Set of end caps

- A set includes 4 end caps. The end caps are different for each dimension. The ends of the pipe **must** be closed. The caps prevent heat loss due to airflow in the fusion zone and guarantee optimum fusion results of the pipe components.

d (mm)	Code	Weight (kg)	Pieces
20	790 131 030	0.040	4
25	790 131 031	0.010	4
32	790 131 032	0.088	4
40	790 131 033	0.005	4
50	790 131 034	0.005	4
63	790 131 035	0.023	4
75	790 133 036	0.095	4
90	790 133 037	0.028	4
110	790 133 038	0.180	4



Pipe stop

- The pipe stop defines the allowance when the pipes are clamped into position.

d-d (mm)	Code	Weight (kg)	Pieces
20 - 110	790 132 059	0.700	1

IR-225 Plus Fusion Jointing Machine and Accessories



IR-225 Plus Fusion Machine

Model:

- Fully-equipped manually operated infrared fusion machine with integrated working table for use under clean room conditions
- Welding of PVDF SYGEF (Standard/Plus), ECTFE SYGEF, PP-H PROGEF (Standard/Plus), PP-n PROGEF Natural, PE100 ecoFIT
- Dimensions d63-225 mm
- Monochrome display with icons and various languages
- 2 USB interfaces
- Heating and facing element
- Clamping slide with movable clamping units
- Cooling fan
- Clamping inserts d63-225 mm (8 pcs. per dimension)
- End caps PE d63-225 mm (4 pcs. per dimension)
- Pipe stop
- Transport box with integrated pallet (stainless steel)
- 1-phase AC (50/60 Hz) 230V L/N/PE or 3-phase AC (50/60 Hz) 400V/230VL1/L2/L3/N/PE
- Connecting cable 400V - 230V
- Additional tools
- Label printer
- Instruction manual

d-d (mm)	Code	Weight (kg)
63 - 225	790 133 009	453.000



Clamping inserts

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.

d (mm)	Code	SP	Weight (kg)	Pieces
63	790 133 026	1	0.700	1
75	790 133 027	1	0.400	1
90	790 133 028	1	0.691	1
110	790 133 029	1	0.644	1
125	790 133 030	1	0.500	1
140	790 133 031	1	0.600	1
160	790 133 032	1	0.600	1
180	790 133 463	1	0.560	1
200	790 133 033	1	0.700	1
225	790 133 034	1	0.270	1



Clamping inserts CONTAIN-IT Plus

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.
- 4x CONTAIN-IT Plus clamping inserts are needed for the two inner clamping devices.

d (mm)	D (mm)	Code	Weight (kg)	Pieces
63	110	790 133 090	0.730	1
75	125	790 133 091	0.700	1
90	140	790 133 092	0.600	1
110	160	790 133 093	0.620	1
125	180	790 133 094	0.580	1



Set of end caps

- A set includes 4 end caps. The end caps are different for each dimension. The ends of the pipe **must** be closed. The caps prevent heat loss due to airflow in the fusion zone and guarantee optimum fusion results of the pipe components.

d (mm)	Code	SP	Weight (kg)	Pieces
63	790 131 035	4	0.023	4
75	790 133 036	4	0.095	4
90	790 133 037	4	0.028	4
110	790 133 038	4	0.180	4
125	790 133 039	4	0.150	4
140	790 133 040	4	0.180	4
160	790 133 041	4	0.045	4
180	790 133 494	4	0.400	4
200	790 133 042	4	0.080	4
225	790 133 043	4	0.400	4



Set of facing knives

- A set includes two facing knives and eight screws. Each facing knife has four blades. The blade may be turned three times before it must be replaced.

d-d (mm)	Code	SP	Weight (kg)	Pieces
63 - 225	790 133 046	1	0.125	2



Pipe stop

- The pipe stop defines the allowance when the pipes are clamped into position.

d-d (mm)	Code	SP	Weight (kg)	Pieces
63 - 225	790 133 047	1	0.150	1



WBI Tool Set S (d20-d63)

WBI-S: Small Tool d20-d63
Printer with accessories
Tablet with accessories
Adapter d20-d63

Code	Weight (kg)
790 170 001	13.5



WBI Tool Set L (d20-d225)

WBI-S: Small Tool d20-d63
WBI-L: Large Tool d75-d225
Printer with accessories
Tablet with accessories
Adapter d20-d225

Code	Weight (kg)
790 170 002	22.4



Tablet WBI Tool

* with WBI Tool app, without power supply unit

	Description	Code	Weight (kg)
*	Tablet WBI Tool	790 170 311	0.535
	Protective cover tablet WBI Tool	790 170 312	0.280
	Pen tablet WBI Tool	790 170 313	0.020
	Power supply unit for tablet (plug for Europe: CEE 7/16)	790 170 316	0.215



Label printer

* Label 36mm included, order Ribbon blue 24mm separately

	Description	Code	Weight (kg)
*	Label printer	790 131 066	2.020
	Ribbon blue 24 mm Brother TZe-251	790 170 315	0.075



Cable for power supply unit WBI Tool and label printer with plug for USA/Japan

	Description	Code	Weight (kg)
	Cable for power supply unit WBI Tool and label printer with plug for USA/ Japan (NEMA 1-15P)	790 170 314	0.200
	USB-Adapter C-A	790 170 317	0.030



Protective cap WBI Tool

With integrated bead for reference

Dimension	Code	Weight (kg)
d20-d63	790 170 211	0.021
d75-d225	790 170 212	0.047



Adapter WBI Tool

Dimension	Code	Weight (kg)
d20	790 170 221	0.017
d25	790 170 222	0.017
d32	790 170 223	0.018
d40	790 170 224	0.020
d50	790 170 225	0.026
d63	790 170 226	0.027
d75	790 170 227	0.061
d90	790 170 228	0.060
d110	790 170 229	0.065
d125	790 170 230	0.063
d140	790 170 231	0.111
d160	790 170 232	0.132
d180	790 170 233	0.139
d200	790 170 234	0.145
d225	790 170 235	0.159

BCF plastic fusion jointing machines



BCF-63 Plus Fusion Machine

Model:

- Fully-equipped manually operated fusion machine with integrated remote welding unit for bead and crevice free jointing for use under clean room conditions
- Welding of PVDF SYGEF (Standard/Plus), PP-n PROGEF Natural
- Dimensions d20-63 mm
- Monochrome display with icons and various languages
- 2 USB interfaces
- Heating stations d20-63 mm (6 pcs.)
- Facing tool incl. facing inserts d20-63 mm (6 pcs.)
- Facing tool support
- Movable clamping units
- Cooling fan
- Clamping units (2 pcs.) with clamping inserts d20-63 mm (4 pcs. per dimension)
- Supporting tools d20-63 mm (2 pcs.)
- Transport box with integrated pallet
- 1-phase AC (50/60 Hz) 115 / 230 V L/N/PE
- Extension cable for remote welding (8m)
- Bladder Remove Tool (BReT)
- Hose box incl. air hose (16m)
- Hose cutter
- Label printer
- Instruction manual

Note:

Bladders to be ordered separately.

d-d (mm)	Code	Weight (kg)
20 - 63	790 121 002	153.000



BCF-110 Plus Fusion Machine

Model:

- Fully-equipped manually operated fusion machine with integrated remote welding unit for bead and crevice free jointing for use under clean room conditions
- Welding of PVDF SYGEF (Standard/Plus), PP-n PROGEF Natural
- Dimensions d20-110 mm
- Monochrome display with icons and various languages
- 2 USB interfaces
- Heating stations d20-110 mm (9 pcs.)
- Facing tool with facing inserts d20-63 mm (6 pcs.)
- Facing tool with facing inserts d75-110 mm (3 pcs.)
- Facing tool support
- Movable clamping units
- Cooling fan
- Clamping units (2 pcs.) with clamping inserts d20-63 mm (4 pcs. per dimension)
- Clamping units (2 pcs.) with clamping inserts d75-110 mm (4 pcs. per dimension)
- Adapter for clamping unit d75-110 mm (2 pcs.)
- Supporting tools d20-63 mm (2 pcs.)
- Supporting tools d75-110 mm (2 pcs.)
- Transport box with integrated pallet
- 1-phase AC (50/60 Hz) 115 / 230 V L/N/PE
- Extension cable for remote welding (8m)
- Bladder Remove Tool (BRet)
- Hose box incl. air hose (16m)
- Hose cutter
- Label printer
- Instruction manual

Note:

Bladders to be ordered separately.

d-d (mm)	Code	SP	Weight (kg)
20 - 110	790 121 001	1	188.000



BCF Plus Heating stations

d (mm)	Code	Weight (kg)	Pieces
20	790 121 111	1.818	1
25	790 121 112	1.822	1
32	790 121 113	1.910	1
40	790 121 114	2.396	1
50	790 121 115	2.406	1
63	790 121 116	2.197	1
75	790 121 117	3.600	1
90	790 121 118	3.600	1
110	790 121 119	3.520	1



BCF Plus Bladder for SYGEF PVDF

- d20-d63: Only suitable for welding SYGEF PVDF. **Silver bladder head!**
- d75-110: Suitable for welding SYGEF PVDF and PROGEF Natural PP-n. **Silver bladder head!**

d (mm)	Code	SP	Weight (kg)	Pieces
20	790 122 041	1	0.014	1
25	790 122 042	1	0.020	1
32	790 122 043	1	0.037	1
40	790 122 044	1	0.078	1
50	790 122 045	1	0.132	1

table continued on the next page

d (mm)	Code	SP	Weight (kg)	Pieces
63	790 122 046	1	0.138	1
75	790 121 047	1	0.203	1
90	790 121 048	1	0.265	1
110	790 121 049	1	0.552	1



BCF Plus Bladder for PROGEF Natural PP-n

- d20-63: Only suitable for welding PROGEF Natural PP-n. **Blue bladder head!**
- d75-110: Suitable for welding PROGEF Natural PP-n and SYGEF PVDF. **Silver bladder head!**

d (mm)	Code	SP	Weight (kg)	Pieces
20	790 122 091	1	0.038	1
25	790 122 092	1	0.021	1
32	790 122 093	1	0.040	1
40	790 122 094	1	0.050	1
50	790 122 095	1	0.105	1
63	790 122 096	1	0.138	1
75	790 121 047	1	0.203	1
90	790 121 048	1	0.265	1
110	790 121 049	1	0.552	1



BCF Plus facing tool

- Inclusive crank handle, mounting material and clamping inserts. Suitable for SYGEF PVDF as well as for PROGEF Natural PP-n.

d-d (mm)	Code	SP	Weight (kg)	Pieces
20 - 63	790 121 052	1	2.339	1
75 - 110	790 121 053	1	3.000	1



BCF Plus clamping inserts for the facing tool

- These dimension-specific parts are inserted into the facing tool, in order to be able to face the end of the pipes smoothly and parallel.

d (mm)	Code	SP	Weight (kg)	Pieces
20	790 121 061	1	0.160	1
25	790 121 062	1	0.146	1
32	790 121 063	1	0.135	1
40	790 121 064	1	0.125	1
50	790 121 065	1	0.100	1
63	790 121 066	1	0.050	1
75	790 121 067	1	0.300	1
90	790 121 068	1	0.200	1
110	790 121 069	1	0.090	1



BCF Plus facing tool mounting plate

- To fix the facing tool on the workbench.

d-d (mm)	Code	Weight (kg)
20 - 110	790 121 055	1.200



BCF Plus clamping units

- The clamping units are adjustable, so that all types of pipes and fittings can be clamped.

d-d (mm)	Code	SP	Weight (kg)	Pieces
20 - 63	790 121 034	1	0.600	1
75 - 110	790 121 035	1	0.900	1



BCF Plus adapter for clamping unit d 75-110 mm

- The adapter makes it possible, to insert clamping inserts with d 20-63 mm in clamping units with d 75-110 mm to be able to clamp pipes and fittings with d 20-63 mm with these clamping units.

d-d (mm)	Code	SP	Weight (kg)	Pieces
75 - 110	790 121 038	1	0.250	1



BCF Plus clamping inserts

- The clamping inserts are suitable for the clamping units of the BCF Plus machine. They are used to clamp the piping components.
- No clamping inserts are needed for d 110 mm!**

d (mm)	Code	SP	Weight (kg)	Pieces
20	790 131 038	1	0.140	1
25	790 131 039	1	0.090	1
32	790 131 040	1	0.052	1
40	790 131 041	1	0.074	1
50	790 131 042	1	0.100	1
63	790 131 043	1	0.035	1
75	790 121 036	1	0.143	1
90	790 121 037	1	0.095	1



BCF Plus hose box incl. hose

- For the clean and professional storage of the air hose.

d (mm)	Code	Weight (kg)	Length (m)	Pieces
4	790 121 151	1.114	16	1



BCF Plus hose

- Connection hose for the BCF Plus bladder.

d (mm)	Code	Weight (kg)	Length (m)
4	790 122 087	0.121	16



BCF Plus supporting tool

- Helpful to fix 45°- angle components.

d-d (mm)	Code	SP	Weight (kg)	Pieces
20 - 63	790 121 072	1	0.542	1
75 - 110	790 121 073	1	0.900	1



BCF Plus bladder/ hose remove tool (BReT)

- Helpful to remove bladders easily.

Code	SP	Weight (kg)	Pieces
790 121 075	1	0.079	1



BCF Plus extension cable

- The extension cable enable the fusion e. g. under the ceiling.

Code	SP	Weight (kg)	Length (mm)
790 122 989	1	1.000	8

Accessories for the BCF Plus plastic fusion jointing machine



Hose cutter

d-d (mm)	Code	SP	Weight (kg)	Pieces
4 - 6	790 122 106	1	0.031	1



Socket for compressed air hose

d (mm)	Code	Weight (kg)	Pieces
4	790 122 104	0.002	1

SG 125 Socket fusion machine



SG 125 Socket fusion machine

- For fusion jointing of PP, PE and PVDF pipes and fittings; dimensional range: d 20 - 125 mm
- **BASE MACHINE**
- Compact, sturdy design, distortion-free machine bed
- Handwheel with torque locking mechanism for the slide movement
- Fast selection of insertion depth according to the pipe dimension
- **HEATER**
- With electronic temperature control
- High temperature accuracy over the entire heating surface
- **ADDITIONAL STANDARD EQUIPMENT**
- Universal, left and right prismatic clamping devices, complete, for clamping pipe and fittings. Additional set of prismatic clamping devices for outer clamping of pipes available as an option.
- V-shaped pipe support d 20 - 125 mm
- Machine specific tool set
- Timer to clock fusion times
- Including transport packaging, without accessories

d-d (mm)	Performance	Code	Weight (kg)
20 - 125	230 V/1500 W	790 310 034	65.000
20 - 125	115 V/1500 W	790 310 036	65.000



Heating spigots and bushes

- Always delivered in pairs (also usable for SG 110, SG 125, not for SG 160)
- Type B according to DVS 2208-1 (mechanical calibrated pipe ends)
- For socket fusion systems in PP, PE and PVDF

d (mm)	Code	SP	Weight (kg)
25	799 300 157	0	0.154
32	799 300 158	0	0.211
40	799 300 159	0	0.309
50	799 300 160	0	0.434
63	799 300 161	1	0.594
75	799 300 162	0	0.981
90	799 300 163	0	1.452
110	799 300 164	0	2.008



Manual pipe peeling tool

- For socket fusion systems in PP, PE and PVDF

d (mm)	Code	Weight (kg)
20	799 300 260	0.087
25	799 300 270	0.080
32	799 300 280	0.099
40	799 300 290	0.240
50	799 300 300	0.244
63	799 300 310	0.507
75	799 300 320	0.680
90	799 300 330	1.006
110	799 300 340	1.355



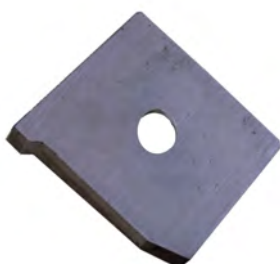
Tempil sticks

Temperature (°C)	Code	SP	Weight (kg)	Color
253	761 066 796	1	0.012	yellow
274	761 066 797	1	0.014	red



Special transport crate

Code	SP	Weight (kg)
790 310 099	0	26.000



Spare blades for calibration tools Peeling tool blade

- 3 pieces are required per dimension

d (mm)	Code	SP	Weight (kg)
20	799 300 266	1	0.013
25	799 300 276	1	0.015
32	799 300 286	1	0.005
40	799 300 296	1	0.018
50	799 300 306	1	0.019
63	799 300 316	1	0.024
75	799 300 326	1	0.028
90	799 300 336	1	0.041
110	799 300 346	1	0.043



Set heating spigots and bushes Type B

- For socket fusion systems in PP, PE
- Always delivered in pairs (also usable for SG 110, SG 125, not for SG 160)
- Type B according to DVS 2208-1 (mechanical calibrated pipe ends)

d-d (mm)	Code	Weight (kg)
20 - 125	790 310 023	8.600



Spare konus handle for calibration tools

d-d (mm)	Article	Code	SP	Weight (kg)
45 - 50	M6	799 300 295	0	0.021
63 - 110	M8	799 300 315	0	0.056

Accessories for plastic fusion jointing machines

Accessories for the IR Plus and BFC Plus fusion machines



Tangit KS Cleaner

- Special cleaner for plastic fusion connections in the material of PP, PE, PVDF and PB
- Suitable for Tangit Rapid. Must not be used for solvent cementing
- DVGW approved
- DW 5290 BR 0464

Size	Code	SP	Weight (kg)
1 liter	799 298 023	8	0.872



Cleaning tissue K0-TON-R

Minimum order quantity 100 pieces

- This cleaning tissue is suitable for the cleaning of the welding zone of piping components, because it is lint free and clean room checked.

Code	Weight (kg)
790 122 085	0.005



Label Printer

- Label 36 mm included, order Label 24 mm separately

description	Code	Weight (kg)
Label Printer Brother PT-P900W	790 131 066	2.740
Ribbon 24 mm Brother TZe-251	790 131 065	0.100

PPC Plastic pipe cutter



PPC Plastic pipe cutter

For cutting plastic pipes d10 - d160

d-d (mm)	Article	Code	SP	Weight (kg)	Closest inch (inch)
10 - 63	PPC 63, s max. = 7.2mm	790 109 001	1	0.865	1/8 - 2
50 - 110	PPC 110, s max. = 12.7mm	790 109 002	1	1.624	1 1/2 - 4
110 - 160	PPC 160, s max. = 19.0mm	790 109 003	1	2.212	4 - 6



Replacement cutting wheels

For plastic pipe cutter

d-d (mm)	Article	Code	SP	Weight (kg)
10 - 63	SR 63 max. s=7,2 mm	790 109 011	1	0.004
50 - 110	SR 110/160 max. s=12,7 mm	790 109 012	1	0.015
110 - 160	SR 160 max. s=19,0 mm	790 109 013	1	0.023



Rotary Pipe Cutter d63-200 mm

- Tool for simple right angle precision cutting of plastic pipe with a wall thickness up to 12 mm PVDF/PVC and up to 20 mm PP/PE --> blade for PP/PE must be ordered separately (Code 790109861)
- Including transport box

d-d (mm)	Code	Weight (kg)
63 - 200	790 109 850	7.000



Rotary Pipe Cutter d90-315 mm

- Tool for simple right angle precision cutting of plastic pipe with a wall thickness up to 15 mm PVDF/PVC and up to 30 mm PP/PE --> blade for PP/PE must be ordered separately (Code 790109861)
- Including transport box

d-d (mm)	Code	Weight (kg)
90 - 315	790 109 851	5.000



Knife for Rotary Pipe Cutter d63-200 and d90-315 for PP/PE pipe

d-d (mm)	Code	Weight (kg)
63 - 315	790 109 861	0.050



IR-Plus Win Weld

- The PC data transfer software makes it possible to read the recorded fusion data from the USB stick (max. 2 GB) on the PC
- Incl. USB stick 2GB

Code Weight

(kg)

790 131 471 0.151



BCF Plus Win Weld

- The PC data transfer software makes it possible to read the recorded fusion data from the USB stick (max. 2 GB) on the PC
- Incl. USB stick 2GB

Code Weight

(kg)

790 121 471 0.080

Miscellaneous accessories org



Timer with 2 stop times

Code	SP	Weight (kg)
790 114 028	1	0.088

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General Condition of Supply of Georg Fischer Piping Systems Limited, Schaffhausen

1 General

- 1.1 These General Conditions shall apply to all Products supplied by Georg Fischer Piping Systems Limited («Georg Fischer») to the Purchaser.
They shall also apply to all future business even when no express reference is made to them.
- 1.2 Any deviating or supplementary conditions especially Purchaser's general conditions of purchase and verbal agreements shall only be applicable if accepted in writing by Georg Fischer.
- 1.3 The written form shall be deemed to be fulfilled by all forms of transmission, evidenced in the form of text, such as telefax, e-mail, etc.

2 Tenders

- Tenders shall only be binding if they contain a specifically stated period for acceptance.

3 Scope of Delivery

- 3.1 Georg Fischer's product range is subject to change.
- 3.2 The confirmation of order shall govern the scope and execution of the contract.

4 Data and Documents

- 4.1 Technical documents such as drawings, descriptions, illustrations and data on dimensions, performance and weight as well as the reference to standards are for information purposes only. They are not warranted characteristics and are subject to change.
- 4.2 All technical documents shall remain the exclusive property of Georg Fischer and may only be used for the agreed purposes or as Georg Fischer may consent.

5 Confidentiality, Protection of Personal Data

- 5.1 Each party shall keep in strict confidence all commercial or technical information relating to the business of the other party, of which it has gained knowledge in the course of its dealing with the other party. Such information shall neither be disclosed to third parties nor used for other purposes than those for which the information has been supplied.
- 5.2 In the context of the contractual relation with the Purchaser personal data may be processed. The Purchaser agrees to the disclosure of said data to third parties such as foreign subcontractors and suppliers etc.

6 Local Laws and Regulations, Export Controls

- 6.1 The Purchaser shall bring to the attention of Georg Fischer all local laws and regulations at the place of destination which bear connection with the execution of the contract and the adherence to relevant safety regulations and approval procedures.
- 6.2 In case of re-exports, Purchaser shall be responsible for compliance with pertinent export control regulations.

7 Price

- 7.1 Unless agreed otherwise, the prices shall be deemed quoted net ex works (according to Incoterms 2010 of the ICC, or latest version) including standard packing. All supplementary costs such as the cost of carriage, insurance, export-, transit- and import- licences etc. shall be borne by the Purchaser. The Purchaser shall also bear the costs of all taxes, fees, duties etc. connected with the contract.
- 7.2 If the costs of packing, carriage, insurance, fees and other supplementary costs are included in the tender price or contract price or are referred to specifically in the tender or confirmation of order, Georg Fischer reserve the right to revise their prices accordingly should any change occur in the relevant tariffs.

8 Terms of Payment

- 8.1 The Purchaser shall make payment in the manner agreed by the parties without any deductions such as discounts, costs, taxes or dues.
- 8.2 The Purchaser may only withhold or off-set payments due against counter claims which are either expressly acknowledged by Georg Fischer or finally awarded to the Purchaser.
In particular, payment shall still be made when unessential items are still outstanding provided that the Products already delivered are not rendered unusable as a result.

9 Retention of Title

- 9.1 The Products shall remain the property of Georg Fischer until the Purchaser shall have settled all claims, present and future, which Georg Fischer may have against him.
- 9.2 Should the Purchaser resell Products to which title is reserved, in the ordinary course of business, he shall hereby be deemed to have tacitly assigned to Georg Fischer the proceeds deriving from their sale together with all collateral rights, securities and reservations of title until all claims held by Georg Fischer shall have been settled. Until revoked by Georg Fischer, this assignment shall not preclude Purchaser's right to collect the assigned receivables.
- 9.3 To the extent the value of the Products to which title is reserved together with collateral securities exceeds Georg Fischer's claims against the Purchaser by more than 20%, Georg Fischer shall re-assign the above proceeds to Purchaser at his request.

10 Delivery

- 10.1 The term of delivery shall commence as soon as the contract has been entered into, all official formalities such as import and payment permits have been obtained and all essential technical issues have been settled. The term of delivery shall be deemed duly observed when, upon its expiry, the Products are ready for despatch.
- 10.2 Delivery is subject to the following conditions, i.e. the term of delivery shall be reasonably extended:
 - a) If Georg Fischer are not supplied in time with the information necessary for the execution of the contract or if subsequent changes causing delays are made by the Purchaser.
 - b) If Georg Fischer are prevented from performing the contract by force majeure. Force majeure shall equally be deemed to be any unforeseeable event beyond Georg Fischer's control which renders Georg Fischer's performance commercially unpractical or impossible, such as delayed or defective supplies from sub contractors labour disputes, governmental orders or regulations, shortages in materials or energy, serious disturbances in Georg Fischer's works, such as the total or partial destruction of plant and equipment or the breakdown of essential facilities, serious disruptions in transport facilities, e.g. impassable roads.
Should the effect of force majeure exceed a period of six (6) months, either party may cancel the contract forthwith.
Georg Fischer shall not be liable for any damage or loss of any kind whatsoever resulting therefrom, any suspension or cancellation being without prejudice to Georg Fischer's right to recover all sums due in respect of consignments delivered and costs incurred to date.
 - c) If the Purchaser is in delay with the fulfilment of his obligations under the contract, in particular, if he does not adhere to the agreed conditions of payment or if he has failed to timely provide the agreed securities.
- 10.3 If for reasons attributable to Georg Fischer the agreed term of delivery or a reasonable extension thereof is exceeded, Georg Fischer shall not be deemed in default until the Purchaser has granted to Georg Fischer in writing a reasonable extension thereof of not less than one (1) month which equally is not met.
The Purchaser shall then be entitled to the remedies provided at law, it being however understood that, subject to limitations of Art. 16, damage claims shall be limited to max. 10% of the price of the delayed delivery.
- 10.4 Part shipments shall be allowed and Georg Fischer shall be entitled to invoice for such partial deliveries.
- 10.5 If the Purchaser fails to take delivery within a reasonable time of Products notified as ready for despatch, Georg Fischer shall be entitled to store the Products at the Purchaser's expense and risk and to invoice them as delivered. If Purchaser fails to effect payment, Georg Fischer shall be entitled to dispose of the Products.
- 10.6 Should Purchaser cancel an order without justification and should Georg Fischer not insist on the performance of the contract, Georg Fischer shall be entitled to a penalty amounting to 10% of the contract price, Georg Fischer's right to prove and claim higher damages remaining reserved.

Purchaser shall be entitled to prove, that Georg Fischer has suffered no or a considerably lower damage than the penalty forfeited.

11 Packing

If the Products are provided with additional packing over and above the standard packing, such packing shall be charged additionally.

12 Passing of Risk

- 12.1 The risk in the Products shall pass to the Purchaser as soon as they have left Georg Fischer's works [EX WORKS, Incoterms 2010 ICC, or latest version], even if delivery is made carriage-paid, under similar clauses or including installation or when carriage is organized and managed by Georg Fischer.
- 12.2 If delivery is delayed for reasons beyond Georg Fischer's control, the risk shall pass to the Purchaser when he is notified that the Products are ready for despatch.

13 Carriage and Insurance

- 13.1 Unless agreed otherwise, the Purchaser shall bear the cost of carriage.
 - 13.2 The Purchaser shall be responsible for transport insurance against damage of whatever kind. Even when such insurance is arranged by Georg Fischer it shall be deemed taken out by the order of and for the account of the Purchaser and at his risk.
 - 13.3 Special requests regarding carriage and insurance shall be communicated to Georg Fischer in due time. Otherwise carriage shall be arranged by Georg Fischer at their discretion, but without responsibility, by the quickest and cheapest method possible.
In case of carriage-paid delivery transport arrangements shall be made by Georg Fischer. If the Purchaser specifies particular requirements, any extra costs involved shall be borne by him.
 - 13.4 In the event of damage or loss of the Products during carriage the Purchaser shall mark the delivery documents accordingly and immediately have the damage ascertained by the carrier. Not readily ascertainable damages sustained during carriage shall be notified to the carrier within six (6) days after receipt of the Products.
- ## 14 Inspection, Notification of Defects and Damages
- 14.1 The Products will be subject to normal inspection by Georg Fischer during manufacture. Additional tests required by the Purchaser shall be agreed upon in writing and shall be charged to the Purchaser.
 - 14.2 It shall be a condition of Georg Fischer's obligation under the warranties stated hereinafter that Georg Fischer be notified in writing by the Purchaser of any purported defect immediately upon discovery. Notice concerning weight, numbers or apparent defects is to be given latest within 30 days from receipt of the Products, notice of other defects immediately latest within seven (7) working days after discovery, in any event within the agreed warranty period.
 - 14.3 Purchaser shall not dispose of allegedly defective Products until all warranty and/or damage claims are finally settled. At its request, defective Products are to be placed at Georg Fischer's disposal.
 - 14.4 At its request, Georg Fischer shall be given the opportunity to inspect the defect and/or damage, prior to commencement of remedial work, either itself or by third party experts.

15 Warranty

- 15.1 At the written request of the Purchaser, Georg Fischer undertakes to repair or replace at its discretion, as quickly as possible and free of charge, all Products supplied which demonstrably suffer from faulty design, materials or workmanship, from faulty operating or installation instructions or which become defective or unusable due to faulty advice.
In order to protect employees from toxic or radioactive substances which may have been transported through defective parts returned to Georg Fischer's sales organisation, said parts must be accompanied by a Material Safety Disclosure Form. The form may be obtained from Georg Fischer's local sales company or via www.piping.georgfischer.com.
Replaced parts shall become property of Georg Fischer, unless Georg Fischer waives such claim.
- 15.2 For Products which are manufactured to specifications, drawings or patterns supplied by the Purchaser, Georg Fischer's warranty shall be restricted to proper materials and workmanship.
- 15.3 The Purchaser shall be entitled to rescind the contract or to demand a reduction of the contract price if
 - the repair or replacement of the defective Product is impossible
 - the defective Product is not repaired or replaced within a reasonable period
 - Georg Fischer refuses the repair or replacement or if for reasons attributable to Georg Fischer the repair or replacement is delayed.
- 15.4 For Products or essential components manufactured by a third party and supplied by Georg Fischer under this contract, Georg Fischer's warranty is limited to the warranty provided by said third party.
- 15.5 This warranty shall not apply to damage resulting from normal wear and tear, improper storage and maintenance, failure to observe the operating instructions, overstressing or overloading, unsuitable operating media, unsuitable construction work or unsuitable building ground, improper repairs or alterations by the Purchaser or third parties, the use of other than original spare parts and other reasons beyond Georg Fischer's control.
- 15.6 No action or claim may be brought by the Purchaser on account of any alleged breach of warranty or any other obligation of Georg Fischer after the expiration of twelve (12) months from receipt of the Products by the end user or at the latest within eighteen (18) months of the Products being despatched by Georg Fischer.
- 15.7 In case of Products for use in domestic installations or in utilities
 - Georg Fischer will assume the costs of dismantling the defective Product and restoring the damaged object up to CHF 1'000'000 per occurrence.
 - warranty or damage claims - contrary to Section 15.6 - are time-barred five (5) years from the date of installation or seven (7) years from the production date, whichever is earlier.

16 Limitation of Liability

The rights and remedies of the customer shall be exclusively governed by these General Conditions of Supply and shall be in lieu of any remedies at law. All further claims for damages, reduction of the purchase price, termination of or rescission of the contract are excluded. In no case whatsoever shall the customer be entitled to claim damages other than compensation for costs of remedying defects in the supplies. This in particular refers, but shall not be limited, to loss of production, loss of use, loss of orders, loss of profit, third party recovery claims and other direct or indirect or consequential damages.
This limitation of liability equally applies to the extent Georg Fischer is liable for acts or omissions of its employees or third parties engaged for the performance of its obligations. It does not apply in case of unlawful intent or gross negligence on the part of Georg Fischer's management and in case of Georg Fischer's statutory liability, in particular under applicable product liability laws.

17 Severability

Should any term or clause of these General Conditions in whole or in part be found to be unenforceable or void, all other provisions shall remain in full force and effect and the unenforceable or void provision shall be replaced by a valid provision, which comes closest to the original intention of the unenforceable or invalid provision.

18 Place of Performance and Jurisdiction

- 18.1 Place of performance for the Products shall be the Georg Fischer works from which the Products are despatched.
- 18.2 The contract shall be governed by Swiss law without regard to conflict of law provisions that would require the application of another law.
- 18.3 Any civil action based upon any alleged breach of this contract shall be filed and prosecuted exclusively in the courts of Schaffhausen, Switzerland.
Georg Fischer however reserves the right to file actions in any court having jurisdiction over controversies arising out of or in connection with the present contract.

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