

# Technical catalogue



Diaphragm actuated valves  
in PVC-U, PVC-C, PP-H, PVDF



Pressure piping fluids conveying





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# GENERAL CHARACTERISTICS AND MATERIAL PROPERTIES

PVC-U / PVC-C / PP-H / PVDF



# PVC-U

## General characteristics

**Developed in 1930 in Germany, PVC-U (rigid polyvinyl chloride- unplasticized) is obtained through the polymerization of a vinyl chloride monomer.**

**The presence of chlorine in the PVC-U molecule results in a high performance resin, in terms of thermal stability and chemical and mechanical resistance, up to temperatures of 60° C.**

The different formulations obtained by adding suitable additives and stabilizers render the PVC-U the most versatile of all plastic materials, allowing it to be adapted to many applications involving fluids under pressure.

PVC-U represents one of the more economic solutions in the field of thermoplastic and metal materials for resolving problems in the transport of corrosive chemical fluids, and in the distribution and treatment of water in general.

The main reasons for this preference are the unique characteristics of the resin, which include:

- **Good chemical resistance:** PVC-U resins have excellent chemical resistance to most acids and alkalis, paraffin/aliphatic hydrocarbons and saline solutions. It is not recommended for the transport of polar organic compounds, including some types of chlorinated and aromatic solvents.

PVC-U resins are also fully compatible with the transport of foodstuffs, demineralised water, potable water and unconditioned water, as provided for by current national and international standards.

PVC-U resins are also characterised by their low permeability to oxygen and reduced water absorption (0.1% at 23 °C according to ASTM D 570).

- **Good thermal stability:** PVC-U resins have good thermal stability in the temperature range between 20 °C and 50 °C and are typically used in industrial and water supply applications, guaranteeing excellent mechanical strength, sufficient rigidity for the purpose, reduced thermal expansion coefficients and high factors of safety in service.

PVC-U compounds are also resistant to combustion with a flash point of 399 °C. The flame, in fact, only persists if the oxygen concentration is twice that of atmospheric or in the presence of a flame from an external source. Flash point: 399° C. Oxygen index: 45%. UL 94 class: V0. Thanks to the reduced coefficient of thermal conductivity ( $\lambda = 0.15 \text{ W/m } ^\circ\text{C}$  according to ASTM C177) the use of PVC-U resin for transporting hot fluids reduces heat loss and virtually eliminates condensation problems.










- **Good mechanical strength:** The thermal stability of the material leads to good impact resistance and the capacity to support service pressures of 4 – 6 – 10 – 16 bar at 20°C.

- **Resistance to ageing:** PVC-U resins have a high circumferential breaking strength (Minimum Required Strength MRS  $\geq 25.0 \text{ MPa}$  at 20°C) and allow long installation lifetimes without showing any signs of significant physical-mechanical deterioration.

<b>Density</b>	
Test method	ISO 1183 - ASTM D792
Unit of measurement	g/cm <sup>3</sup>
Value	1.38
<b>Modulus of elasticity</b>	
Test method	ISO 527
Unit of measurement	MPa = N/mm <sup>2</sup>
Value	3200
<b>IZOD notched impact strength at 23°C</b>	
Test method	ASTM D256
Unit of measurement	J/m
Value	50
<b>Ultimate elongation</b>	
Test method	ISO 527
Unit of measurement	%
Value	50
<b>Shore hardness</b>	
Test method	ISO 868
Unit of measurement	Shore D
Value	80
<b>Tensile strength</b>	
Test method	ISO 527
Unit of measurement	MPa = N/mm <sup>2</sup>
Value	50
<b>VICAT softening point (B/50)</b>	
Test method	ISO 306
Unit of measurement	°C
Value	76
<b>Heat distortion temperature HDT (0.46 N/mm<sup>2</sup>)</b>	
Test method	ASTM D648
Unit of measurement	°C
Value	86
<b>Thermal conductivity at 23° C</b>	
Test method	DIN 52612-1 - ASTM C177
Unit of measurement	W/(m °C)
Value	0.16
<b>Coefficient of linear thermal expansion</b>	
Test method	DIN 53752 - ASTM D696
Unit of measurement	m/(m °C)
Value	8 x 10 <sup>-5</sup>
<b>Limiting Oxygen Index</b>	
Test method	ISO 4859-1 - ASTM D2863
Unit of measurement	%
Value	45

# Main properties

## PVC-U

Properties of PVC-U		Benefits
Thermal resistance		<ul style="list-style-type: none"> <li>• Service range 0–60 °C (see pressure/temperature regression curve)</li> </ul>
Low surface roughness		<ul style="list-style-type: none"> <li>• High flow coefficients (extremely smooth internal walls)</li> <li>• Pressure drop constant over time</li> <li>• Low risk of stoppages due to scaling</li> <li>• Reduced transfer of material to the transported fluid</li> </ul>
Chemical resistance		<ul style="list-style-type: none"> <li>• Good chemical resistance for conveying acids and alkalis, paraffin/aliphatic hydrocarbons and saline solutions.</li> </ul>
Abrasion resistance		<ul style="list-style-type: none"> <li>• Extremely low operating costs due to its long service life</li> </ul>
Insulating		<ul style="list-style-type: none"> <li>• Non-conductive (immune to galvanic corrosion)</li> <li>• No condensation problems</li> <li>• Minimum heat loss</li> </ul>
Linear thermal expansion coefficients		<ul style="list-style-type: none"> <li>• Reduced need for supports and expansion joints, resulting in considerable advantages in terms of plant design</li> </ul>
Easy to join (solvent weld sockets)		<ul style="list-style-type: none"> <li>• Reduced installation costs thanks to the “solvent weld” joint effected using a suitable solvent cement</li> </ul>
Fire behaviour		<ul style="list-style-type: none"> <li>• Good resistance to combustion also due to the presence of self-extinguishing chlorine</li> </ul>
Good mechanical resistance		<ul style="list-style-type: none"> <li>• PVC-U satisfies the need to provide adequate mechanical strength and complies with the requirements of industrial plant design</li> </ul>



# PVC-C

## General characteristics

**Developed in 1958 by the company BF Goodrich, now LUBRIZOL, PVC-C (post-chlorinated polyvinyl chloride) is obtained by chlorinating the PVC resin in suspension. During the transformation, alternate hydrogen atom monomers in the PVC molecular chain are replaced by Chlorine atoms. The process produces a high performance resin with excellent thermal stability and chemical and mechanical strength up to temperatures of 100°C.**

In 1986, FIP was the first European Company to produce an integrated system of valves, fittings and pipes called **TemperFIP100®**.

The result was the creation of an entire series of products for industrial plants. Given the twenty-year old partnership with LUBRIZOL EUROPE, now the Temper FIP line uses **PVC-C CORZAN™** resins specifically formulated for industrial applications to produce pipes, fittings and valves made by extrusion and injection moulding. PVC-C resins are fully compatible for use in transporting water to treatment plants, as well as for conveying demineralised and spa water.

The PVC-C TemperFIP100® system represents one of the more economical solutions in the field of thermoplastic materials and metals, able to resolve the difficulties encountered in process and service lines transporting hot corrosive fluids in the industrial sector, as well as in domestic hot and cold water distribution systems.










The main reasons for this preference are the unique chemical and physical characteristics of the resin, which include:

- **High chemical resistance:** the use of CORZAN™ resin, obtained through the chlorination of homopolymer PVC, can guarantee high chemical resistance, in particular against strong inorganic acids, saline and alkaline solutions and paraffin hydrocarbons. It is not recommended for the transport of polar organic compounds, including some types of chlorinated and aromatic solvents. Its electrochemical corrosion resistance guarantees excellent reliability for conveying domestic hot water in conventional and solar panel systems.
- **Optimum thermal and mechanical properties:** TemperFIP100® PVC-C is typically used in temperatures between 20°C and 85°C and has extremely low thermal expansion coefficients, thus guaranteeing excellent mechanical strength able to withstand service pressures of around 10-16 bar at 20°C. Its excellent thermal stability (VICAT value according to EN ISO 15493) together with its optimum creep behaviour (circumferential breaking strength according to ASTM D 2837 equal to 1000 PSI 82 °C, 100,000 hours) allows it to be used at temperatures up to around 95 °C for special applications and to satisfy particular performance requirements. The reduced coefficient of thermal conductivity ( $\lambda = 0.16 \text{ W/m } ^\circ\text{C}$  according to ASTM C177) virtually eliminates condensation problems and reduces heat loss when transporting hot fluids.
- **Physical characteristics:** PVC-U resins are characterised by their low permeability to oxygen and reduced water absorption (0.07% at 23 °C according to ASTM D 570). The physical properties of the material render it highly resistant to ageing and aggression by atmospheric agents (UV radiation) thanks to the presence of Titanium dioxide in the compound.
- **Fire resistance:** PVC-U resins also have excellent fire resistance with a flash point of 482 °C. The flame, in fact, only persists if the oxygen concentration is three times that of atmospheric or in the presence of a flame from an external source. PVC-C CORZAN™ resins are also classified VO, 5VB and 5VA according to UL94.

<b>Density</b>		
Test method	ISO 1183	ASTM D792
Unit of measurement	g/cm <sup>3</sup>	g/(10 min)
Value	Valves/fittings: 1.50 Pipes: 1.50	Valves/fittings: 1.50 Pipes: 1.50
<b>Modulus of elasticity</b>		
Test method	ISO 178	ASTM D790
Unit of measurement	MPa = N/mm <sup>2</sup>	MPa = N/mm <sup>2</sup>
Value	Valves/fittings: 2800 Pipes: 2420	Valves/fittings: 2992 Pipes: 2689
<b>IZOD notched impact strength at 23°C</b>		
Test method	ASTM D256	
Unit of measurement	ftlbs/in	
Value	Valves/fittings: 1.8 - Pipes: 1.6	
<b>Ultimate elongation</b>		
Test method	ISO 527-1, ISO 527-2	
Unit of measurement	%	
Value	Valves/fittings: 16 - Pipes: 5	
<b>Rockwell hardness</b>		
Test method	ASTM D 785	
Unit of measurement	R	
Value	Valves/fittings: 120 - Pipes: 116	
<b>Tensile strength</b>		
Test method	ISO 527-1, ISO 527-2	
Unit of measurement	MPa = N/mm <sup>2</sup>	
Value	Valves/fittings: 54 - Pipes: 54	
<b>VICAT softening point (1 kg)</b>		
Test method	EN ISO 15493	
Unit of measurement	°C	
Value	Valves/fittings: ≥ 103 - Pipes: ≤ 110	
<b>Heat distortion temperature HDT (0.46 N/mm<sup>2</sup>)</b>		
Test method	ASTM D648	
Unit of measurement	°C	
Value	Valves/fittings: 110 - Pipes: 113	
<b>Thermal conductivity at 23° C</b>		
Test method	DIN 52612-1	ASTM C 177
Unit of measurement	W/(m °C)	W/(m °C)
Value	Valves/fittings: 0.16 Pipes: 0.16	Valves/fittings: 0.16 Pipes: 0.16
<b>Coefficient of linear thermal expansion</b>		
Test method	DIN 53752 -	ASTM D696
Unit of measurement	m/(m °C)	m/(m °C)
Value	Valves/fittings: 5.6 x 10 <sup>-5</sup> Pipes: 6.6 x 10 <sup>-5</sup>	Valves/fittings: 5.6 x 10 <sup>-5</sup> Pipes: 6.6 x 10 <sup>-5</sup>
<b>Limiting Oxygen Index</b>		
Test method	ISO 4859-1	ASTM D2863
Unit of measurement	%	%
Value	Valves/fittings: 60 Pipes: 60	Valves/fittings: 60 Pipes: 60

# Main properties

## PVC-C

Properties of PVC-U		Benefits
Thermal resistance		<ul style="list-style-type: none"> <li>• Service range 0–100 °C (see pressure/temperature regression curve)</li> </ul>
Low surface roughness		<ul style="list-style-type: none"> <li>• High flow coefficients (extremely smooth internal walls)</li> <li>• Pressure drop constant over time</li> <li>• Low risk of stoppages due to scaling</li> <li>• Reduced transfer of material to the transported fluid</li> </ul>
Chemical resistance		<ul style="list-style-type: none"> <li>• Excellent chemical resistance for conveying corrosive fluids (generally inert to inorganic acids and bases, aromatic and aliphatic hydrocarbons, organic acids, alcohols and halogenated solvents)</li> </ul>
Abrasion resistance		<ul style="list-style-type: none"> <li>• Extremely low operating costs due to its long service life</li> </ul>
Insulating		<ul style="list-style-type: none"> <li>• Non-conductive (immune to galvanic corrosion)</li> <li>• No condensation problems</li> <li>• Minimum heat loss</li> </ul>
Linear thermal expansion coefficients		<ul style="list-style-type: none"> <li>• Reduced need for supports and expansion joints, resulting in considerable advantages in terms of plant design</li> </ul>
Easy to join (solvent weld sockets)		<ul style="list-style-type: none"> <li>• Reduced installation costs thanks to the “solvent weld” joint effected using a suitable solvent cement</li> </ul>
Fire behaviour		<ul style="list-style-type: none"> <li>• More resistant to combustion than the more commonly used thermoplastics, also due to the presence of self-extinguishing chlorine</li> </ul>
Good mechanical resistance		<ul style="list-style-type: none"> <li>• PVC-C satisfies the need to provide adequate mechanical strength and complies with the requirements of industrial plant design</li> </ul>

# PP-H

## General characteristics

**Polypropylene is a thermoplastic and partially crystalline resin belonging to the family of polyolefins. PP is obtained through the polymerization of propylene (C<sub>3</sub>H<sub>6</sub>) with the aid of catalysts. For use in piping systems, the latest-generation Polypropylene Homopolymer variant, or PP-H, offers excellent performance at working temperatures of up to 100° C and a high resistance to chemicals due to the excellent physical and thermal characteristics of the resin.**

The PP-H line in latest-generation Polypropylene Homopolymer consists of a comprehensive range of pipes, fittings and valves for use in the construction of process and service lines for conveying pressurised industrial fluids and for maximum operating temperatures of up to 100° C.

The entire line is made of Polypropylene Homopolymer resins MRS 100 (PP-H 100) according to the classification DIN 8077-8078, DIN 16962 and approved by DIBt - Deutsches Institut für Bautechnik for use in industrial processes.









The main properties of the latest-generation Homopolymer resins are:

- **High chemical resistance:** In addition to ensuring excellent chemical resistance, especially against halogens and alkaline solutions, the use of PP-H resins with special additives also ensures excellent mechanical properties when conveying detergents and similar chemicals. PP-H resins are also fully compatible with the transport of drinking, unconditioned, demineralised and spa water for therapeutic and kinotherapeutic uses.
- **Excellent thermal stability:** Particularly in the intermediate temperature range between 10° C and 80° C typical of industrial applications, PP-H ensures excellent mechanical strength and impact resistance with high safety factors.
- **Resistance to ageing:** PP-H resins have a high circumferential breaking strength (Minimum Required Strength MRS  $\geq$  10.0 MPa at 20°C) and allow long installation lifetimes without showing any signs of significant physical-mechanical deterioration.

<b>Density</b>	
Test method	ISO 1183
Unit of measurement	g/cm <sup>3</sup>
Value	Valves/fittings/pipes: 0.9
<b>Fluidity index (MFI 190° C, 5 kg)</b>	
Test method	ISO 1133
Unit of measurement	g/(10 min)
Value	Valves/fittings/pipes: 0.5
<b>Modulus of elasticity</b>	
Test method	ASTM D 790
Unit of measurement	MPa = N/mm <sup>2</sup>
Value	Valves/fittings/pipes: 1300
<b>IZOD notched impact strength at 23°C</b>	
Test method	ASTM D256
Unit of measurement	J/m
Value	Valves/fittings/pipes: 150
<b>Ultimate elongation</b>	
Test method	ISO 527
Unit of measurement	%
Value	Valves/fittings/pipes: >50
<b>Rockwell hardness</b>	
Test method	ASTM D 785
Unit of measurement	R
Value	Valves/fittings/pipes: 100
<b>Tensile strength</b>	
Test method	ISO 527
Unit of measurement	MPa = N/mm <sup>2</sup>
Value	Valves/fittings/pipes: 30
<b>Heat distortion temperature HDT (0.46 N/mm<sup>2</sup>)</b>	
Test method	ASTM D648
Unit of measurement	°C
Value	Valves/fittings/pipes: 96
<b>Thermal conductivity at 20° C</b>	
Test method	DIN 5216
Unit of measurement	W/(m °C)
Value	Valves/fittings/pipes: 0.22
<b>Coefficient of linear thermal expansion</b>	
Test method	DIN 53752
Unit of measurement	m/(m °C)
Value	Valves/fittings/pipes: 16 x 10 <sup>-5</sup>
<b>Limiting Oxygen Index</b>	
Test method	ASTM D2863
Unit of measurement	%
Value	Valves/fittings/pipes: 17.5
<b>Surface electrical resistivity</b>	
Test method	ASTM D257
Unit of measurement	ohm
Value	Valves/fittings/pipes: >10 <sup>13</sup>
<b>Flammability</b>	
Test method	UL94
Value	94-HB

# Main properties

## PP-H

Properties of PP-H		Benefits
Thermal resistance		<ul style="list-style-type: none"> <li>• Service range 0–100 °C (see pressure/temperature regression curves)</li> </ul>
Low surface roughness		<ul style="list-style-type: none"> <li>• High flow coefficients (extremely smooth internal walls)</li> <li>• Pressure drop constant over time</li> <li>• Low risk of stoppages due to scaling</li> <li>• Reduced transfer of material to the transported fluid</li> </ul>
Chemical resistance		<ul style="list-style-type: none"> <li>• Suitable for conveying chemicals (excellent results with salts and highly alkaline solutions)</li> </ul>
Abrasion resistance		<ul style="list-style-type: none"> <li>• Extremely low operating costs due to its long service life</li> </ul>
Insulating		<ul style="list-style-type: none"> <li>• Non-conductive (immune to galvanic corrosion)</li> <li>• No condensation problems</li> <li>• Minimum heat loss</li> </ul>
Non-toxic		<ul style="list-style-type: none"> <li>• Physiologically safe</li> <li>• Environmental compatibility</li> </ul>
Easy jointing (hot socket, butt and electrofusion welding, flanging and threading)		<ul style="list-style-type: none"> <li>• Low installation costs</li> <li>• Wide range of connection possibilities with Accessories and equipment</li> </ul>
Low specific weight		<ul style="list-style-type: none"> <li>• Low transport costs</li> <li>• Ease of handling and installation</li> </ul>

# PVDF

## General characteristics

**PVDF (polyvinylidene difluoride) is a semi-crystalline fluorinated technopolymer and 59% of its weight is Fluorine.**

**This material is obtained through the polymerization of vinylidene fluoride. It boasts exceptional mechanical, physical and chemical resistance, guaranteeing excellent performance in terms of thermal stability up to temperatures of 140°C.**

The FIP PVDF line uses Solef® PVDF resins (manufactured by SOLVAY) especially formulated for industrial applications, for the production of pipes, fittings and valves made by extrusion and injection moulding.

The entire line is made using Solef® resins by SOLVAY S.A. classified according to ASTM D 3222 and complying with the requirements of ISO 10931.

Thanks to its high purity and exceptional performance, PVDF is the best alternative to metal materials, and is extensively used in industrial applications (chemical, oil, pharmaceutical, pulp and paper, electronic, etc.), whether in process systems or otherwise.

Among the most important properties and advantages of Solef® PVDF, the following are particularly worthy of note:

- **Excellent thermal stability:** the use of Solef® resin, a vinylidene fluoride polymer, ensures excellent resistance to corrosion and abrasion when conveying highly aggressive chemicals. PVDF is basically inert to most inorganic acids and bases, organic acids, aromatic and aliphatic hydrocarbons, alcohols and halogenated solvents. However, it is not recommended for use with fluorine, amines, ketones and oleum (sulfuric acid with sulfur trioxide).

- **Excellent thermal stability:** PVDF maintains its characteristics unchanged in a temperature range between -40° C and +140° C. PVDF pipes are particularly suitable in all applications requiring high operating temperatures, very low levels of fluid contamination and high resistance to ageing due to atmospheric agents and UV radiation.

The material's excellent mechanical properties are retained even at high temperatures.

- **Fire resistance:** Solef® resins guarantee excellent fire resistance without the need for flame retardants (Limit Oxygen Index, LOI = 44%).

In case of combustion, smoke emissions are moderated.

Solef® PVDF resins are classified UL-94, class V-O.

- **Purity:** Solef® PVDF resin is an extremely pure polymer that does not contain stabilizers, plasticizers, lubricants or flame retardants.

As a result, it is the ideal material for conveying ultra-pure water and chemicals, ensuring the non-contamination of the conveyed fluid. As it is physiologically non-toxic, it is suitable for conveying fluids and food products.








- **High abrasion resistance:** according to the Taber Abrasion Test (in which the weight loss of a material is measured after being exposed to an abrasive wheel for 1000 cycles), PVDF is the most resistant thermoplastic material (CS-10 Load 1kg - Weight Loss / 1000 cycles = 5-10 mg.)

<b>Density</b>		
Test method	ISO 1183	
Unit of measurement	g/cm <sup>3</sup>	
Value	Valves/fittings: 1.78 - Pipes: 1.78	
<b>Fluidity index (MFI 230° C, 5 kg)</b>		
Test method	ISO 1133	ASTM D1238
Unit of measurement	g/(10 min)	g/(10 min)
Value	Valves/fittings: 6 - Pipes: 6	Valves/fittings: 24 - Pipes: 24
<b>Modulus of elasticity</b>		
Test method	ISO 527	ASTM D1238
Unit of measurement	MPa = N/mm <sup>2</sup>	MPa = N/mm <sup>2</sup>
Value	Valves/fittings: 2100 - Pipes: 2100	Valves/fittings: 2200 - Pipes: 2100
<b>IZOD notched impact strength at 23°C</b>		
Test method	ASTM D256	
Unit of measurement	J/m	
Value	Valves/fittings: 55 - Pipes: 110	
<b>Ultimate elongation</b>		
Test method	ISO 527-2	ASTM D 638
Unit of measurement	%	%
Value	Valves/fittings: 80 - Pipes: 80	Valves/fittings: 5-10 - Pipes: 20-50
<b>Rockwell hardness</b>		
Test method	ASTM D 785	
Unit of measurement	R	
Value	Valves/fittings: 110 - Pipes: 110	
<b>Tensile strength</b>		
Test method	ISO 527	ASTM D 638
Unit of measurement	MPa = N/mm <sup>2</sup>	MPa = N/mm <sup>2</sup>
Value	Valves/fittings: 50 - Pipes: 50	Valves/fittings: 53-57 - Pipes: 53-57
<b>Heat distortion temperature HDT (0.46 N/mm<sup>2</sup>)</b>		
Test method	ISO 75	ASTM D 648
Unit of measurement	°C	°C
Value	Valves/fittings: 145 - Pipes: 145	Valves/fittings: 148 - Pipes: 147
<b>Thermal conductivity at 23° C</b>		
Test method	DIN 52612-1	ASTM C 177
Unit of measurement	W/(m K)	W/(m K)
Value	Valves/fittings: 0.20 - Pipes: 0.20	Valves/fittings: 0.20 - Pipes: 0.20
<b>Coefficient of linear thermal expansion</b>		
Test method	DIN 53752	ASTM D 696
Unit of measurement	m/(m °C)	m/(m °C)
Value	Valves/fittings: 12x10 <sup>-5</sup> Pipes: 12x10 <sup>-5</sup>	Valves/fittings: 12x10 <sup>-5</sup> Pipes: 12x10 <sup>-5</sup>
<b>Limiting Oxygen Index</b>		
Test method	ISO 4859-1	ASTM D 2863
Unit of measurement	%	%
Value	Valves/fittings: 44 - Pipes: 44	Valves/fittings: 44 - Pipes: 44
<b>Surface electrical resistivity</b>		
Test method	ASTM D257	
Unit of measurement	ohm	
Value	Valves/fittings: >10 <sup>14</sup> - Pipes: >10 <sup>14</sup>	
<b>Flammability</b>		
Test method	UL94	
Value	V-0	



# Main properties

## PVDF

Properties of PVDF		Benefits
<b>Thermal resistance</b>		<ul style="list-style-type: none"> <li>• Operating range: – 40 +140°C (see pressure/temperature regression curves)</li> </ul>
<b>Low surface roughness</b>		<ul style="list-style-type: none"> <li>• High flow coefficients (extremely smooth internal walls)</li> </ul>
<b>Chemical resistance</b>		<ul style="list-style-type: none"> <li>• Excellent chemical resistance for conveying corrosive fluids (generally inert to inorganic acids and bases, aromatic and aliphatic hydrocarbons, organic acids, alcohols and halogenated solvents)</li> </ul>
<b>Abrasion resistance</b>		<ul style="list-style-type: none"> <li>• Extremely low operating costs due to its long service life</li> </ul>
<b>Fully recyclable and non-toxic</b>		<ul style="list-style-type: none"> <li>• Physiologically safe</li> </ul>
<b>Easy jointing (hot socket, butt and electrofusion welding, flanging and threading)</b>		<ul style="list-style-type: none"> <li>• Low installation costs</li> </ul>
<b>Excellent mechanical properties</b>		<ul style="list-style-type: none"> <li>• PVDF responds to the need to provide suitable mechanical resistance meeting the design requirements of industrial plants</li> </ul>



# REFERENCE STANDARDS, APPROVALS, AND QUALITY MARKS

ACTUATED VALVES



# Reference standards

Production of the FIP valves is carried out according to the highest quality standards and in full compliance with the environmental restrictions set by the applicable laws in force and in accordance with **ISO 14001**.

All products are made in accordance with the quality guarantee system in compliance with **ISO 9001**.

- **ANSI B16.5**  
Pipe flanges and flanged fittings–NPS 1/2 to NPS 24 mm / inch
- **ASTM D 1784 cl. 23548B**  
Rigid PVC and PVC-C compounds (for industrial applications)
- **ASTM D 2464**  
Standard Specification for Threaded Poly Vinyl Chloride (PVC) Plastic Pipe Fittings
- **ASTM D 2467**  
Standard Specification for Poly Vinyl Chloride (PVC) Plastic Pipe Fittings, Schedule 80
- **ASTM D 3222**  
PVDF, material for extrusion moulding and coating
- **ASTM D 4101-06**  
Polypropylene compound according to the classification PP0110B56000
- **ASTM F437**  
PVC-C threaded pipe fittings, sch. 80
- **ASTM F439**  
PVC-C pipe fittings
- **BS 10**  
Specification for flanges and bolts for pipes, valves and fittings
- **BS 1560**  
Flanges for pipes, valves and fittings (Class designated). Flange in Steel, cast iron and copper alloy. Specification for steel flanges
- **BS 4504**  
Flanges for pipes, valves and fittings (PN designated).
- **DIN 2501**  
Flanges, dimensions
- **DIN 2999**  
Whitworth thread for threaded pipes and fittings
- **DIN 3202**  
Overall valve dimensions
- **DIN 3441-2**  
Dimensions of PVC-U ball valves
- **DIN 8063**  
Dimensions of PVC-U and PVC-C fittings
- **DIN 16962**  
PVC-C, PP-H and PVDF fittings for socket and butt welding
- **DIN 16963**  
Pipe joints and pipe components for pressurised fluids in HDPE
- **DVS 2202-1**  
Imperfections of PP-H and PVDF welded joints, characteristics, descriptions and evaluations
- **DVS 2204 - 2221**  
Solvent welding of thermoplastic materials
- **DVS 2207-11**  
Socket and butt welding of PP-H components
- **DVS 2207-15**  
Welding of components in PVDF
- **DVS 2208-1**  
Machinery and equipment for thermocouple welding pipes, pipe parts and panels.
- **EN 558**  
Industrial valves - Overall dimensions of metal valves for use in flanged pipe systems - PN designated valves
- **EN 1092-1**  
Flanges and their joints - Circular flanges for pipes, fittings, valves and accessories - Part 1: Steel flanges, PN designated

- **EN 60529**  
Casing protection classes
- **EN ISO 1452**  
Characteristics of fittings and pipes in PVC-U for piping systems intended for water supply
- **EN ISO 10931**  
Specifications for components (Pipes, Fittings and Valves) in PVDF for industrial applications
- **EN ISO 15493**  
Specifications for components and the system (Pipes, Fittings and Valves) in ABS, PVC-U, PVC-C for industrial applications
- **EN ISO 15494**  
Specifications for components (Pipes, Fittings and Valves) in PP-H for industrial applications
- **EN ISO 16135**  
Industrial valves - Ball valves of thermoplastic material
- **EN ISO 16136**  
Industrial valves - Butterfly valves of thermoplastic material
- **EN ISO 16137**  
Industrial valves - Check valves of thermoplastic material
- **EN ISO 16138**  
Industrial valves - Diaphragm valves of thermoplastic material
- **ISO 7**  
PVC-U fittings with threaded connections for pressure-tight threaded joints
- **ISO 161-1**  
Dimensions of PVC-U pipes and fittings - metric series
- **ISO 228-1**  
PVC-U and PVC-C fittings with threaded connections
- **ISO 727**  
PVC-U pipes and fittings Dimensions and tolerances, metric series
- **ISO 5211**  
Part-turn actuator couplings
- **ISO 5752**  
Metal valves for use in flanged pipe systems; overall dimensions
- **ISO 7005-1**  
Metal flanges; part 1: steel flanges
- **ISO 9393**  
Thermoplastics valves - pressure test methods and requirements
- **JIS B 2220**  
Flanges for metal pipes
- **JIS K 6743**  
Polyvinyl chloride (PVC-U) pipe fittings for water supply
- **UNI 11242**  
Solvent welding of PVC-U pipes, fittings and valves
- **UNI 11318**  
Socket welding of PP-H components
- **UNI 11397**  
Butt welding of PP-H components
- **VDI/VDE 3845 (NAMUR)**

# Approvals and quality marks



- **ACS**

FIP PVC-U and PVC-C ball and butterfly valves are certified as suitable for coming into contact with water intended for human consumption according to the Attestation de conformité sanitaire (ACS)



- **DIBt**

VKD FIP PP-H and PVDF valves have been tested and certified by DIBt (Deutsches Institut für Bautechnik)



- **EAC**

FIP PVC-U valves are EAC certified in accordance with Russian regulations on Safety, Hygiene and Quality



- **NSF**

Ball, butterfly and SXE valves (where applicable) in PVC-U, PVC-C and PP-H are listed according to the NSF/ANSI Standard 61 - Drinking Water System Components - Health Effects.



- **UKR SEPRO**

FIP valves are certified in accordance with Ukrainian regulations on Safety and Quality



- **WRAS**

Resins used for FIP PVC-U and PVC-C valves are recognised by the WRAS (Water Regulation Advisory Scheme - UK)

- **KTW-W270**

The resin used for PVC-U valves is certified as suitable to come into contact with water intended for human consumption as per Deutscher Verein des Gas und Wasserfaches



- **NIZP**

FIP valves (in PVC-U and PP-H) are recognised as suitable for drinking water conveyance by the NIZP (National Institute of Public Health - Poland)



- **FDA**

Suitability of resins used for valves in PP-H and PVDF for food contact. Resins used for PVC-U and PVC-C valves considered "prior sanction" by the FDA.







## DK/CP DN 15÷65

PVC-U/PVC-C/PP-H/PVDF

PNEUMATICALLY ACTUATED DIAPHRAGM VALVE PN10



# DK/CP DN 15÷65

The DK diaphragm valve is particularly suitable for shutting off and regulating abrasive or dirty fluids. The new internal geometry of the body significantly increases the flow coefficient, reduces pressure drops and allows accurate adjustment over the entire shutter stroke. The DK is extremely compact and very light. The innovative handwheel is equipped with a patented immediate and ergonomic locking device that allows it to be adjusted and locked in any position.

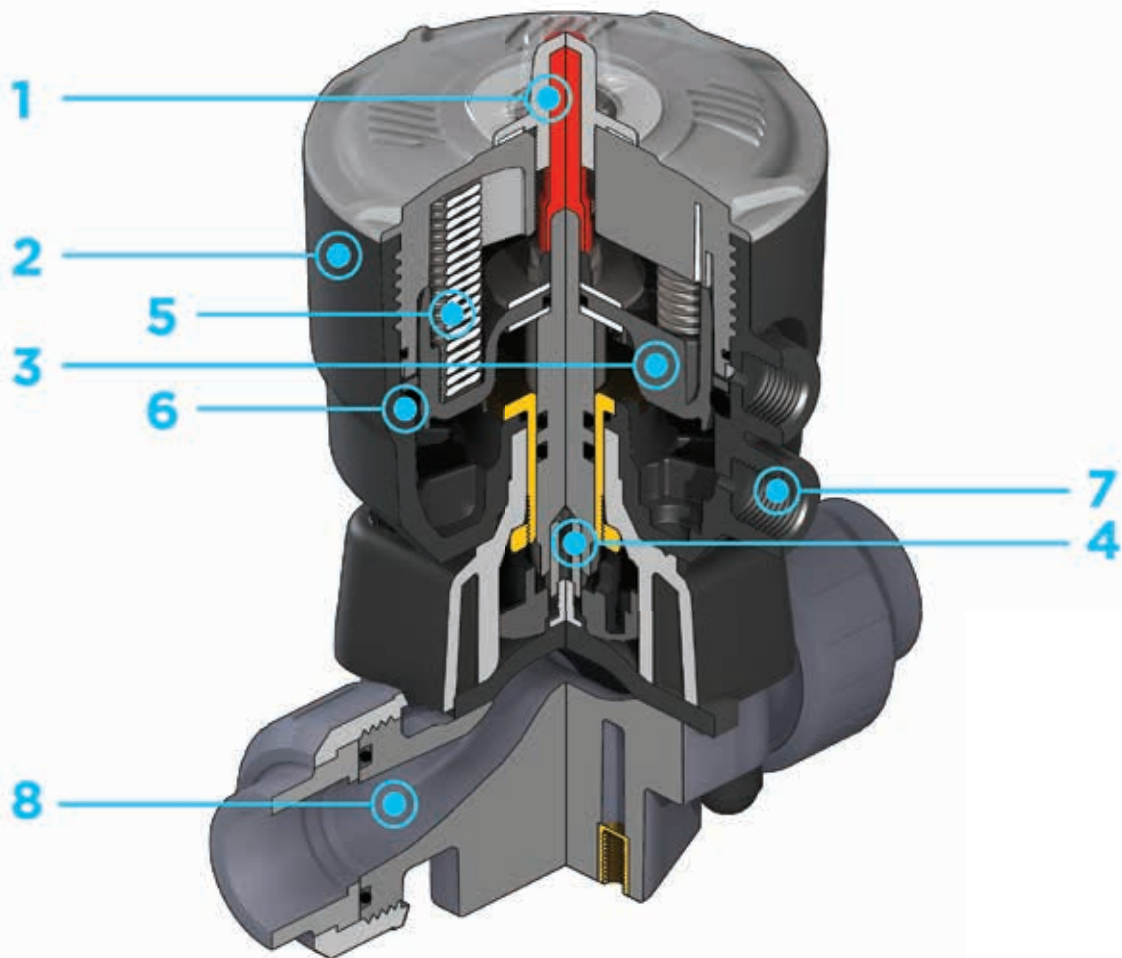
## PNEUMATICALLY ACTUATED DIAPHRAGM VALVE PN10

- Joint system for solvent welding (PVC-U and PVC-C only), for welding (PP-H and PVDF only), for threading and flanging
- **Optimised fluid dynamic design:** maximum output flow rate thanks to the optimised efficiency of the fluid dynamics that characterise the new internal geometry of the body
- **Internal operating components in metal totally isolated from the conveyed fluid** and external environment
- **Modularity of the range:** only 2 hand wheels and 4 diaphragms and bonnet sizes for 7 different valve sizes
- Non-salient hand wheel, equipped with a graduated optical indicator and protected by a transparent PVC cap with sealing O-ring.
- Bonnet fastening screws in STAINLESS steel protected by PE plugs. Absence of metal parts exposed to the external environment to prevent any risk of corrosion
- **New flanged bodies:** the new bodies, characterised by a monolithic flanged structure, are available in PVC-U, PVC-C, PP-H and PVDF. This design, free of joints between the body and flanges, greatly reduces mechanical stress and increases system performance
- **CDSA seal system** (Circular Diaphragm Sealing Angle) with a uniform distribution of the shutter pressure on the sealing membrane offers the following advantages:
  - Operating torque reduction.
  - Reduced mechanical stress on all valve components (actuator, body and diaphragm).
  - Low risk of the accumulation of deposits, contamination or damage to the diaphragm due to crystallisation.
  - Easy to clean valve interior.

Technical specifications - DK	
<b>Construction</b>	Pneumatically actuated diaphragm valve with body at maximized flow rate
<b>Size range</b>	DN 15 ÷ 65
<b>Nominal pressure</b>	PN 10 with water at 20° C
<b>Temperature range</b>	<b>PVC-U:</b> 0 °C ÷ 60 °C <b>PVC-C:</b> 0° C ÷ 100° C <b>PP-H:</b> 0° C ÷ 100° C <b>PVDF:</b> -20° C ÷ 120° C
<b>PVC-U coupling standards</b>	<b>Solvent welding:</b> EN ISO 1452, EN ISO 15493, BS 4346-1, DIN 8063, NF T54-028, ASTM D 2467. Can be coupled to pipes according to EN ISO 1452, EN ISO 15493, DIN 8062, NF T54-016, ASTM D 1785. <b>Thread:</b> ISO 228-1, DIN 2999, ASTM D 2464. <b>Flanging system:</b> ISO 7005-1, EN ISO 1452, EN ISO 15493, EN 558-1, DIN 2501, ANSI B.16.5 cl. 150, JIS B 2220.
<b>PVC-C coupling standards</b>	<b>Solvent welding:</b> EN ISO 15493, ASTM F 439. Can be coupled to pipes according to EN ISO 15493, ASTM F 441. <b>Thread:</b> ISO 228-1, DIN 2999. <b>Flanging system:</b> ISO 7005-1, EN ISO 15493, EN 558-1, DIN 2501, ANSI B.16.5 cl.150
<b>PP-H coupling standards</b>	<b>Welding:</b> EN ISO 15494. Can be coupled to pipes according to EN ISO 15494. <b>Thread:</b> ISO 228-1, DIN 2999. <b>Flanging system:</b> ISO 7005-1, EN ISO 1092-1, EN 15494, EN 558-1, DIN 2501, ANSI B16.5 cl.150
<b>PVDF coupling standards</b>	<b>Welding:</b> EN ISO 10931. Can be coupled to pipes according to EN ISO 10931. <b>Flanging system:</b> ISO 7005-1, EN 10931, EN 558-1, DIN 2501, ANSI B.16.5 cl.150
<b>Reference standards</b>	<b>PVC-U construction criteria:</b> EN ISO 16138, EN ISO 1452, EN ISO 15493 <b>PVC-C construction criteria:</b> EN ISO 16138, EN ISO 15493 <b>PP-H construction criteria:</b> EN ISO 16138, EN ISO 15494 <b>PVDF construction criteria:</b> EN ISO 16138, EN ISO 10931 <b>Test methods and requirements:</b> ISO 9393 <b>PVC-U/PVC-C installation criteria:</b> DVS 2204, DVS 2221, UNI 11242 <b>PP-H installation criteria:</b> DVS 2202-1, DVS 2207-11, DVS 2208-1, UNI 11318 <b>PVDF installation criteria:</b> DVS 2201-1, DVS 2207-15, DVS 2208-1
<b>Valve material</b>	PVC-U / PP-H / PVDF / PVC-C
<b>Seal material</b>	EPDM, FKM, PTFE (on request NBR)
<b>Control options</b>	Pneumatic actuator

The new compact and light piston actuator in PP-GR makes the DK/CP the ideal choice for applications requiring very frequent valve operation and a long valve lifetime.

Technical specifications - Pneumatic actuator	
<b>Construction</b>	Single-acting (NC-NO) and double-acting (DA) pneumatic piston actuator
<b>Actuator material</b>	<b>Body:</b> PP-GR <b>Bonnet:</b> PC
<b>Control air pressure</b>	<b>Minimum:</b> according to working pressure and actuator function (see graphs) <b>Maximum:</b> NC: 6 bar - DA: 5 bar - NO: 6 bar
<b>Power supply</b>	Dry or lubricated filtered compressed air. If using other fluids, contact the FIP service centre
<b>Control fluid temperature</b>	Max 40 °C
<b>Temperature range</b>	-20 °C ÷ 50 °C
<b>Standard equipment</b>	• Optical position indicator
<b>Accessories</b>	<ul style="list-style-type: none"> <li>• Stroke limiter with position indicator</li> <li>• Stroke limiter with position indicator and emergency manual override</li> <li>• Limit switch boxes</li> <li>• Electro-pneumatic positioner</li> <li>• Pilot solenoid valves 3-5/2 ways for direct or manifold mounting</li> <li>• Distance plate</li> </ul>



- 1** **High visibility graduated optical position indicator** protected by a transparent cap with a seal O-Ring.
- 2** **Compact and light piston in PP-GR**, ideal for heavy-duty applications in chemically aggressive environments with a **diaphragm perimeter containment system** that ensures the perfect compression of the rubber without any lateral expansion.
- 3** **Piston in high strength IXEF®**. The high quality finishing of the external surface guarantees perfect slidability over the seal and ensures a long working life without any actuator maintenance.
- 4** High strength **stainless steel stem** with double seal O-Ring. Floating **pin connection** between the actuator stem and diaphragm to prevent concentrated loads, improve the seal and extend its lifetime.
- 5** Actuator equipped with **6 independent cartridge springs** arranged radially to uniformly distribute the load on the piston.
- 6** **Dual function main gasket. Piston seal:** the gasket does not move but sits securely on the actuator cylinder instead of the piston. **External seal:** the gasket positioned above the threaded joint between the bonnet and cylinder ensures that the coupling is not stressed by the pressure inside the actuator.
- 7** Easy installation in confined spaces: **compressed air inlets with G 1/4" threaded adjustable connections** to enable alignment with the piping. PPGR connections prevent any risk of corrosion.
- 8** **New valve body internal design. Substantially higher flow coefficient** and lower pressure drops. The degree of efficiency reached has also enabled the **size and weight of the valve to be reduced. Adjustment linearity:** the internal profiles of the valve greatly improve its characteristic curve, allowing **extremely sensitive and precise adjustment** along the entire length of the shutter stroke.

# TECHNICAL DATA

## PRESSURE VARIATION ACCORDING TO TEMPERATURE

### PVC-U BODY

For water and non-hazardous fluids with regard to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required (25 years with safety factor).



### PVC-C BODY

For water and non-hazardous fluids with regard to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required (25 years with safety factor).



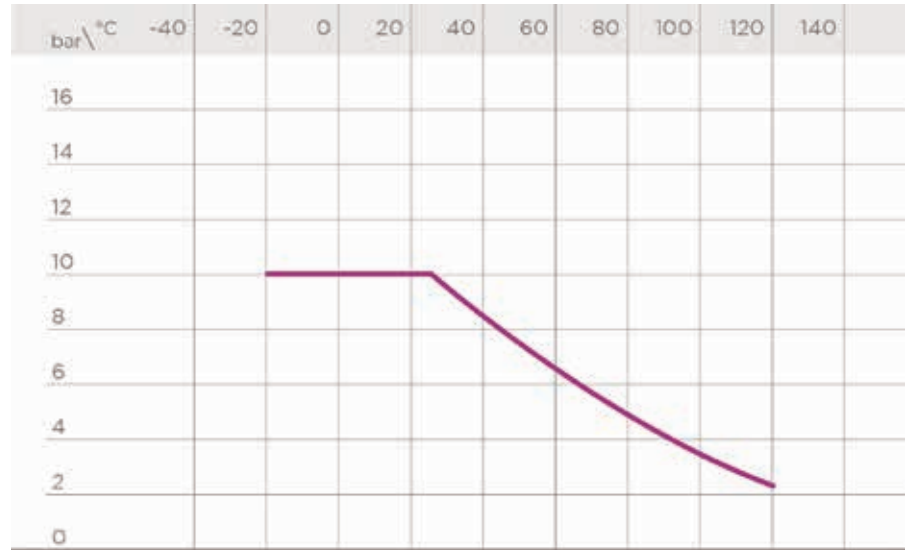
### PP-H BODY

For water and non-hazardous fluids with regard to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required (25 years with safety factor).

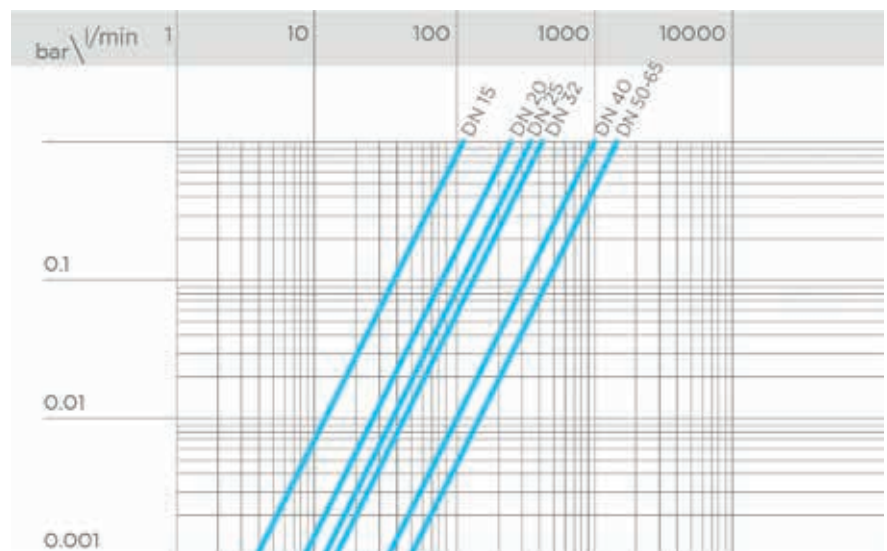


## PVDF BODY

For water and non-hazardous fluids with regard to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required (25 years with safety factor).



## PRESSURE DROP GRAPH



## K<sub>v</sub>100 FLOW COEFFICIENT

The K<sub>v</sub>100 flow coefficient is the Q flow of litres per minute of water at a temperature of 20°C that will generate  $\Delta p = 1$  bar pressure drop at a certain valve position.

The K<sub>v</sub>100 values shown in the table are calculated with the valve completely open.

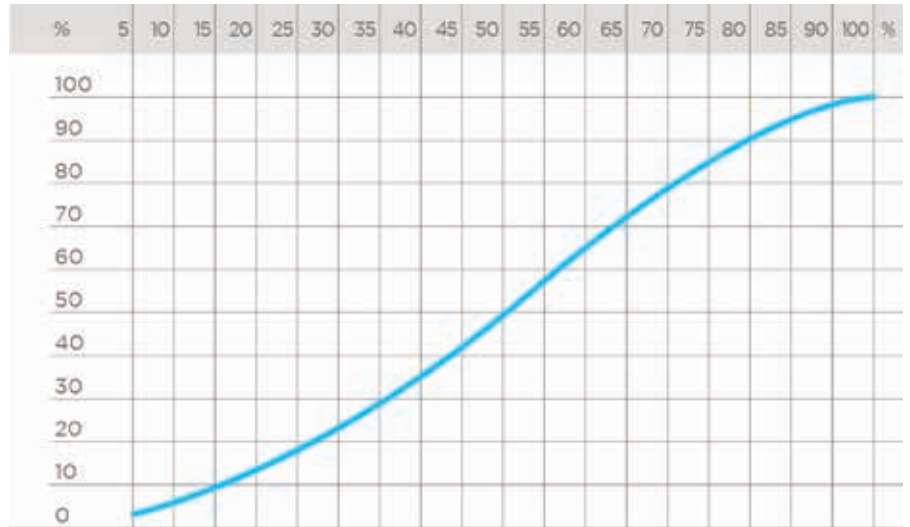
DN	15	20	25	32	40	50	65
K <sub>v</sub> 100 l/min	112	261	445	550	1087	1648	1600

## RELATIVE FLOW COEFFICIENT GRAPH

The relative flow coefficient is the flow rate through the valve as a function of the degree of valve opening.

X axis: Opening percentage of the valve

Y axis: Relative flow coefficient

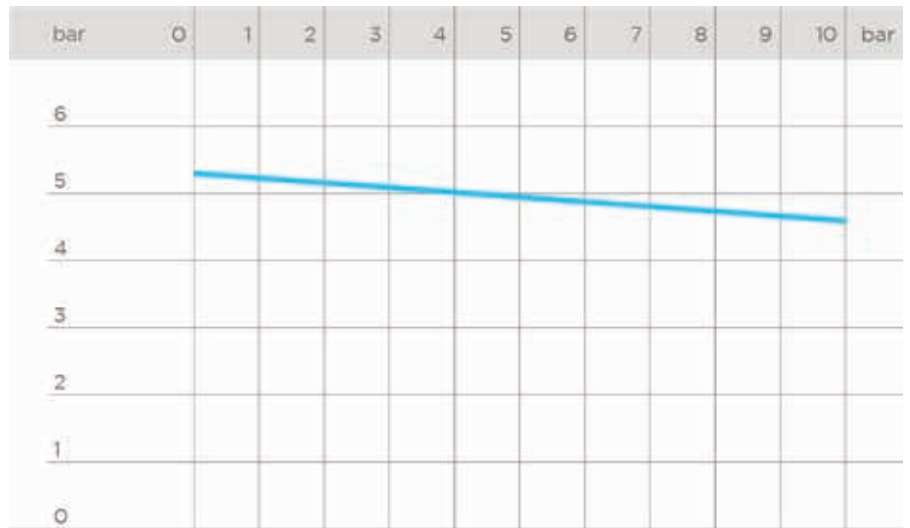


## CONTROL PRESSURE ACCORDING TO DK/CP NC WORKING PRESSURE

Minimum control pressure according to working pressure with EPDM/FKM diaphragm

X axis: Working pressure

Y axis: Control pressure



## CONTROL PRESSURE ACCORDING TO DK/CP NO WORKING PRESSURE

Minimum control pressure according to working pressure with EPDM/FKM diaphragm

X axis: Working pressure

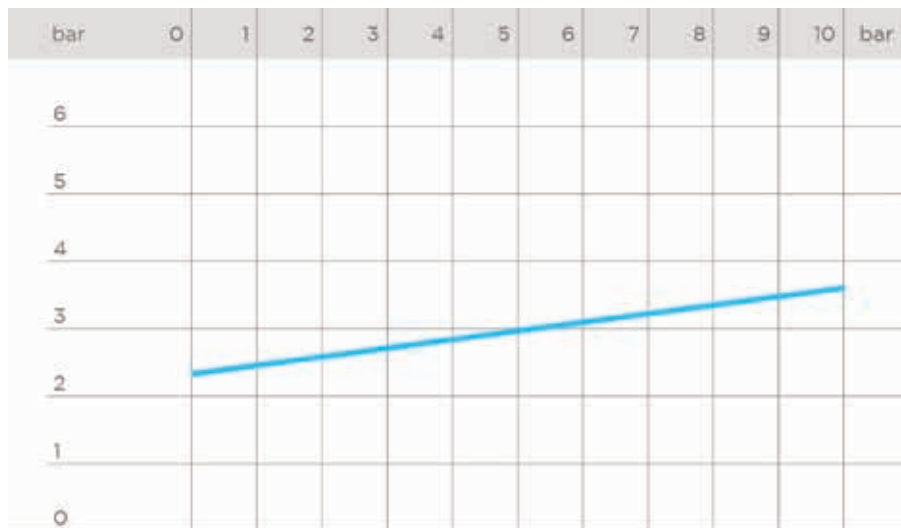
Y axis: Control pressure





## CONTROL PRESSURE ACCORDING TO DK/CP DA WORKING PRESSURE

Minimum control pressure according  
to working pressure with EPDM/FKM  
diaphragm  
X axis: Working pressure  
Y axis: Control pressure



# PNEUMATIC ACTUATOR DATA

## FUNCTIONAL CHARACTERISTICS

Function type	double-acting	Normally closed (NC)	Normally Open (NO)
Valve opening	air	air	spring
Valve closing	air	spring	air

## ACTUATOR CAPACITY

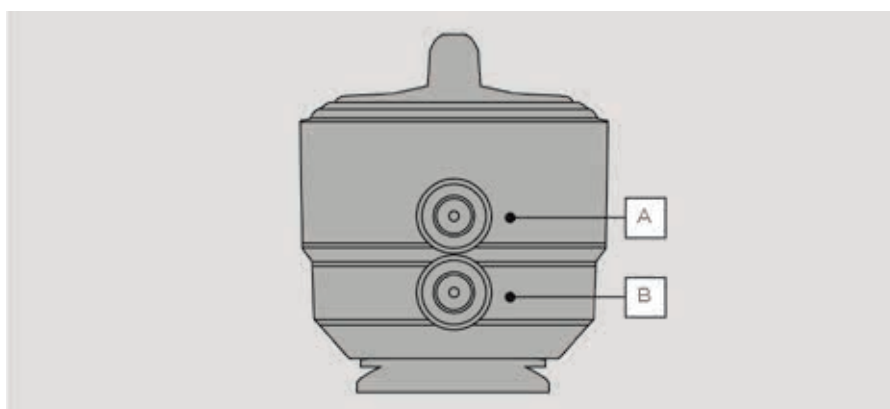
L: litre, equivalent to  $10^{-3} \text{ m}^3$

Air consumption in normal litres (or normal cubic metres) per operating cycle can be calculated by correcting according to operating conditions such as control air pressure.

DN	15 ÷ 32	40	50÷65
NC	0.12 L	0.4 L	0.64 L
NO	0.16 L	0.41 L	0.67 L
DA	0.28 L	0.8 L	1.3 L

## COMPRESSED AIR CONNECTIONS

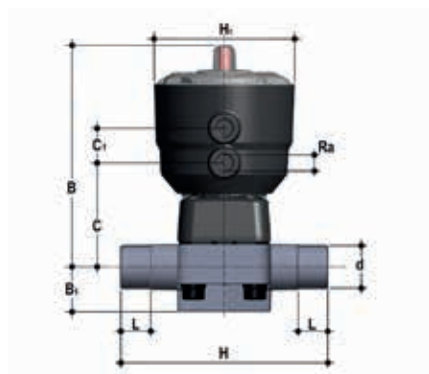
Function type	Double-acting (DA)	Normally closed (NC)	Normally Open (NO)
Valve opening	Inlet B	Inlet B	-
Valve closing	Inlet A	-	Inlet A





# DIMENSIONS

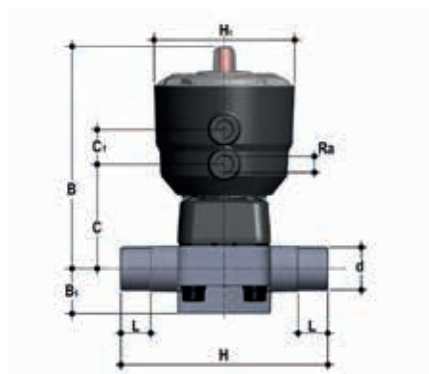
## DK/CP DN 15÷65 PVC-U



### DKDV/CP NC

Pneumatically actuated diaphragm valve with male ends, metric series. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	H	H <sub>1</sub>	L	R <sub>a</sub>	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	124	97	16	1/4"	695	DKDVNC020E	DKDVNC020F	DKDVNC020P
25	20	10	151	30	69	24	144	97	19	1/4"	717	DKDVNC025E	DKDVNC025F	DKDVNC025P
32	25	10	159	33	78	24	154	97	22	1/4"	917	DKDVNC032E	DKDVNC032F	DKDVNC032P
40	32	10	163	30	82	24	174	97	26	1/4"	961	DKDVNC040E	DKDVNC040F	DKDVNC040P
50	40	10	207	35	112	24	194	126	31	1/4"	2702	DKDVNC050E	DKDVNC050F	DKDVNC050P
63	50	10	245	46	142	24	224	157	38	1/4"	5918	DKDVNC063E	DKDVNC063F	DKDVNC063P
75	65	10	245	46	142	24	284	157	44	1/4"	6090	DKDVNC075E	DKDVNC075F	DKDVNC075P



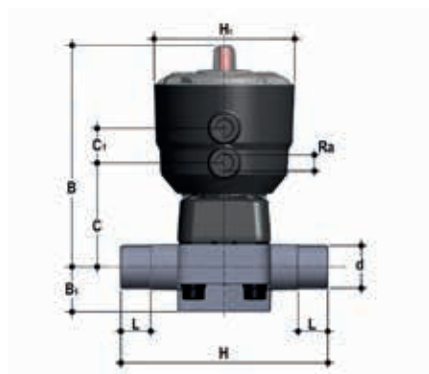
### DKDV/CP NO

Pneumatically actuated diaphragm valve with male ends, metric series. Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	H	H <sub>1</sub>	L	R <sub>a</sub>	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	124	97	16	1/4"	695	DKDVNO020E	DKDVNO020F	DKDVNO020P
25	20	10	151	30	69	24	144	97	19	1/4"	717	DKDVNO025E	DKDVNO025F	DKDVNO025P
32	25	10	159	33	78	24	154	97	22	1/4"	917	DKDVNO032E	DKDVNO032F	DKDVNO032P
40	32	10	163	30	82	24	174	97	26	1/4"	961	DKDVNO040E	DKDVNO040F	DKDVNO040P
50	40	10	207	35	112	24	194	126	31	1/4"	2242	DKDVNO050E	DKDVNO050F	DKDVNO050P
63	50	10	245	46	142	24	224	157	38	1/4"	4136	DKDVNO063E	DKDVNO063F	DKDVNO063P
75	65	10	245	46	142	24	284	157	44	1/4"	4308	DKDVNO075E	DKDVNO075F	DKDVNO075P

# DIMENSIONS

## DK/CP DN 15÷65 PVC-U



### DKDV/CP DA

Pneumatically actuated diaphragm valve with male ends, metric series. Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	H	H <sub>1</sub>	L	R <sub>1</sub>	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	124	97	16	1/4"	575	DKDVDA020E	DKDVDA020F	DKDVDA020P
25	20	10	151	30	69	24	144	97	19	1/4"	597	DKDVDA025E	DKDVDA025F	DKDVDA025P
32	25	10	159	33	78	24	154	97	22	1/4"	797	DKDVDA032E	DKDVDA032F	DKDVDA032P
40	32	10	163	30	82	24	174	97	26	1/4"	841	DKDVDA040E	DKDVDA040F	DKDVDA040P
50	40	10	207	35	112	24	194	126	31	1/4"	2000	DKDVDA050E	DKDVDA050F	DKDVDA050P
63	50	10	245	46	142	24	224	157	38	1/4"	3698	DKDVDA063E	DKDVDA063F	DKDVDA063P
75	65	10	245	46	142	24	284	157	44	1/4"	3870	DKDVDA075E	DKDVDA075F	DKDVDA075P



### DKUIV/CP NC

Pneumatically actuated diaphragm valve with female union ends, metric series. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>0</sub>	R <sub>1</sub>	R <sub>0</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	41	129	97	90	1"	1/4"	100	735	DKUIVNC020E	DKUIVNC020F	DKUIVNC020P
25	20	10	151	30	69	24	50	154	97	108	1 1/4"	1/4"	116	797	DKUIVNC025E	DKUIVNC025F	DKUIVNC025P
32	25	10	159	33	78	24	58	168	97	116	1 1/2"	1/4"	124	1025	DKUIVNC032E	DKUIVNC032F	DKUIVNC032P
40	32	10	163	30	82	24	72	192	97	134	2"	1/4"	140	1151	DKUIVNC040E	DKUIVNC040F	DKUIVNC040P
50	40	10	207	35	112	24	79	222	126	154	2 1/4"	1/4"	160	2922	DKUIVNC050E	DKUIVNC050F	DKUIVNC050P
63	50	10	245	46	142	24	98	266	157	184	2 3/4"	1/4"	190	6304	DKUIVNC063E	DKUIVNC063F	DKUIVNC063P

# DIMENSIONS

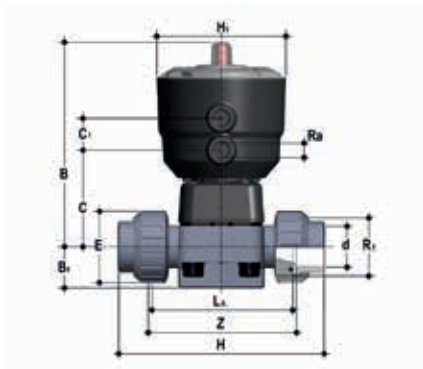
## DK/CP DN 15÷65 PVC-U



### DKUIV/CP NO

Pneumatically actuated diaphragm valve with female union ends, metric series. Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>0</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	41	129	97	90	1"	1/4"	100	735	DKUIVNO020E	DKUIVNO020F	DKUIVNO020P
25	20	10	151	30	69	24	50	154	97	108	1 1/4"	1/4"	116	797	DKUIVNO025E	DKUIVNO025F	DKUIVNO025P
32	25	10	159	33	78	24	58	168	97	116	1 1/2"	1/4"	124	1025	DKUIVNO032E	DKUIVNO032F	DKUIVNO032P
40	32	10	163	30	82	24	72	192	97	134	2"	1/4"	140	1151	DKUIVNO040E	DKUIVNO040F	DKUIVNO040P
50	40	10	207	35	112	24	79	222	126	154	2 1/4"	1/4"	160	2462	DKUIVNO050E	DKUIVNO050F	DKUIVNO050P
63	50	10	245	46	142	24	98	266	157	184	2 3/4"	1/4"	190	4522	DKUIVNO063E	DKUIVNO063F	DKUIVNO063P



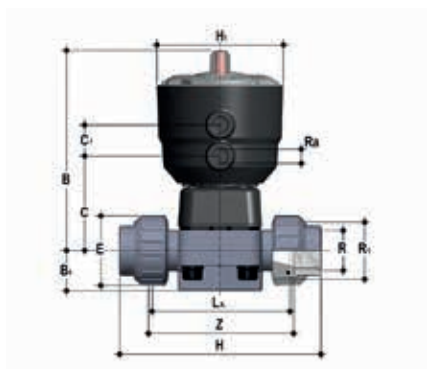
### DKUIV/CP DA

Pneumatically actuated diaphragm valve with female union ends, metric series. Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>0</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	41	129	97	90	1"	1/4"	100	615	DKUIVDA020E	DKUIVDA020F	DKUIVDA020P
25	20	10	151	30	69	24	50	154	97	108	1 1/4"	1/4"	116	677	DKUIVDA025E	DKUIVDA025F	DKUIVDA025P
32	25	10	159	33	78	24	58	168	97	116	1 1/2"	1/4"	124	905	DKUIVDA032E	DKUIVDA032F	DKUIVDA032P
40	32	10	163	30	82	24	72	192	97	134	2"	1/4"	140	1031	DKUIVDA040E	DKUIVDA040F	DKUIVDA040P
50	40	10	207	35	112	24	79	222	126	154	2 1/4"	1/4"	160	2220	DKUIVDA050E	DKUIVDA050F	DKUIVDA050P
63	50	10	245	46	142	24	98	266	157	184	2 3/4"	1/4"	190	4084	DKUIVDA063E	DKUIVDA063F	DKUIVDA063P

# DIMENSIONS

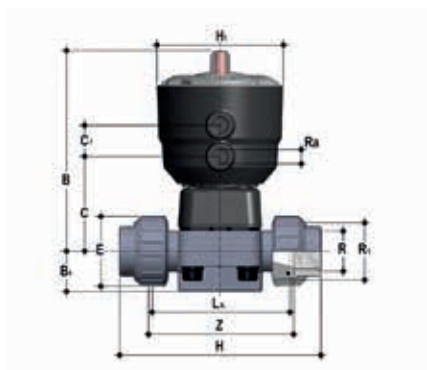
## DK/CP DN 15÷65 PVC-U



### DKUFV/CP NC

Pneumatically actuated diaphragm valve with BSP threaded female union ends. Normally Closed function

R	DN	PN	B	B <sub>2</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>0</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	41	131	97	90	1"	1/4"	97	735	DKUFVNC012E	DKUFVNC012F	DKUFVNC012P
3/4"	20	10	151	30	69	24	50	151	97	108	1 1/4"	1/4"	118	797	DKUFVNC034E	DKUFVNC034F	DKUFVNC034P
1"	25	10	159	33	78	24	58	165	97	116	1 1/2"	1/4"	127	1025	DKUFVNC100E	DKUFVNC100F	DKUFVNC100P
1 1/4"	32	10	163	30	82	24	72	188	97	134	2"	1/4"	145	1151	DKUFVNC114E	DKUFVNC114F	DKUFVNC114P
1 1/2"	40	10	207	35	112	24	79	208	126	154	2 1/2"	1/4"	165	2922	DKUFVNC112E	DKUFVNC112F	DKUFVNC112P
2"	50	10	245	46	142	24	98	246	157	184	2 3/4"	1/4"	195	6304	DKUFVNC200E	DKUFVNC200F	DKUFVNC200P



### DKUFV/CP NO

Pneumatically actuated diaphragm valve with BSP threaded female union ends. Normally Open function

R	DN	PN	B	B <sub>2</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>0</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	41	131	97	90	1"	1/4"	97	735	DKUFVNO012E	DKUFVNO012F	DKUFVNO012P
3/4"	20	10	151	30	69	24	50	151	97	108	1 1/4"	1/4"	118	797	DKUFVNO034E	DKUFVNO034F	DKUFVNO034P
1"	25	10	159	33	78	24	58	165	97	116	1 1/2"	1/4"	127	1025	DKUFVNO100E	DKUFVNO100F	DKUFVNO100P
1 1/4"	32	10	163	30	82	24	72	188	97	134	2"	1/4"	145	1151	DKUFVNO114E	DKUFVNO114F	DKUFVNO114P
1 1/2"	40	10	207	35	112	24	79	208	126	154	2 1/2"	1/4"	165	2462	DKUFVNO112E	DKUFVNO112F	DKUFVNO112P
2"	50	10	245	46	142	24	98	246	157	184	2 3/4"	1/4"	195	4522	DKUFVNO200E	DKUFVNO200F	DKUFVNO200P

# DIMENSIONS

## DK/CP DN 15÷65 PVC-U



### DKUFV/CP DA

Pneumatically actuated diaphragm valve with BSP threaded female union ends. Double-Acting function

R	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>1</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	41	131	97	90	1"	1/4"	97	615	DKUFVDA012E	DKUFVDA012F	DKUFVDA012P
3/4"	20	10	151	30	69	24	50	151	97	108	1 1/4"	1/4"	118	677	DKUFVDA034E	DKUFVDA034F	DKUFVDA034P
1"	25	10	159	33	78	24	58	165	97	116	1 1/2"	1/4"	127	905	DKUFVDA100E	DKUFVDA100F	DKUFVDA100P
1 1/4"	32	10	163	30	82	24	72	188	97	134	2"	1/4"	145	1031	DKUFVDA114E	DKUFVDA114F	DKUFVDA114P
1 1/2"	40	10	207	35	112	24	79	208	126	154	2 1/2"	1/4"	165	2220	DKUFVDA112E	DKUFVDA112F	DKUFVDA112P
2"	50	10	245	46	142	24	98	246	157	184	2 3/4"	1/4"	195	4084	DKUFVDA200E	DKUFVDA200F	DKUFVDA200P



### DKUAV/CP NC

Pneumatically actuated diaphragm valve with female union ends for solvent welding, ASTM series Normally Closed function

R	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>1</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	41	143	97	90	1"	1/4"	98	735	DKUAVNC012E	DKUAVNC012F	DKUAVNC012P
3/4"	20	10	151	30	69	24	50	167	97	108	1 1/4"	1/4"	115	797	DKUAVNC034E	DKUAVNC034F	DKUAVNC034P
1"	25	10	159	33	78	24	58	180	97	116	1 1/2"	1/4"	122	1025	DKUAVNC100E	DKUAVNC100F	DKUAVNC100P
1 1/4"	32	10	163	30	82	24	72	208	97	134	2"	1/4"	144	1151	DKUAVNC114E	DKUAVNC114F	DKUAVNC114P
1 1/2"	40	10	207	35	112	24	79	234	126	154	2 1/2"	1/4"	164	2922	DKUAVNC112E	DKUAVNC112F	DKUAVNC112P
2"	50	10	245	46	142	24	98	272	157	184	2 3/4"	1/4"	195	6304	DKUAVNC200E	DKUAVNC200F	DKUAVNC200P



# DIMENSIONS

## DK/CP DN 15÷65 PVC-U



### DKUAV/CP NO

Pneumatically actuated diaphragm valve with female union ends for solvent welding, ASTM series Normally Open function

R	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>1</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	41	143	97	90	1"	1/4"	98	735	DKUAVNO012E	DKUAVNO012F	DKUAVNO012P
3/4"	20	10	151	30	69	24	50	167	97	108	1 1/4"	1/4"	115	797	DKUAVNO034E	DKUAVNO034F	DKUAVNO034P
1"	25	10	159	33	78	24	58	180	97	116	1 1/2"	1/4"	122	1025	DKUAVNO100E	DKUAVNO100F	DKUAVNO100P
1 1/4"	32	10	163	30	82	24	72	208	97	134	2"	1/4"	144	1151	DKUAVNO114E	DKUAVNO114F	DKUAVNO114P
1 1/2"	40	10	207	35	112	24	79	234	126	154	2 1/2"	1/4"	164	2462	DKUAVNO112E	DKUAVNO112F	DKUAVNO112P
2"	50	10	245	46	142	24	98	272	157	184	2 3/4"	1/4"	195	4522	DKUAVNO200E	DKUAVNO200F	DKUAVNO200P



### DKUAV/CP DA

Pneumatically actuated diaphragm valve with female union ends for solvent welding, ASTM series Double-Acting function

R	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>1</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	41	143	97	90	1"	1/4"	98	615	DKUAVDA012E	DKUAVDA012F	DKUAVDA012P
3/4"	20	10	151	30	69	24	50	167	97	108	1 1/4"	1/4"	115	677	DKUAVDA034E	DKUAVDA034F	DKUAVDA034P
1"	25	10	159	33	78	24	58	180	97	116	1 1/2"	1/4"	122	905	DKUAVDA100E	DKUAVDA100F	DKUAVDA100P
1 1/4"	32	10	163	30	82	24	72	208	97	134	2"	1/4"	144	1031	DKUAVDA114E	DKUAVDA114F	DKUAVDA114P
1 1/2"	40	10	207	35	112	24	79	234	126	154	2 1/2"	1/4"	164	2220	DKUAVDA112E	DKUAVDA112F	DKUAVDA112P
2"	50	10	245	46	142	24	98	272	157	184	2 3/4"	1/4"	195	4084	DKUAVDA200E	DKUAVDA200F	DKUAVDA200P

# DIMENSIONS

## DK/CP DN 15÷65 PVC-U



### DKULV/CP NC

Pneumatically actuated diaphragm valve with female union ends for solvent welding, BS series  
Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>1</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	41	131	97	90	1"	1/4"	97	735	DKULVNC012E	DKULVNC012F	DKULVNC012P
3/4"	20	10	151	30	69	24	50	154	97	108	1 1/4"	1/4"	116	797	DKULVNC034E	DKULVNC034F	DKULVNC034P
1"	25	10	159	33	78	24	58	166	97	116	1 1/2"	1/4"	121	1025	DKULVNC100E	DKULVNC100F	DKULVNC100P
1 1/4"	32	10	163	30	82	24	72	194	97	134	2"	1/4"	142	1151	DKULVNC114E	DKULVNC114F	DKULVNC114P
1 1/2"	40	10	207	35	112	24	79	222	126	154	2 1/4"	1/4"	162	2922	DKULVNC112E	DKULVNC112F	DKULVNC112P
2"	50	10	245	46	142	24	98	266	157	184	2 3/4"	1/4"	194	6304	DKULVNC200E	DKULVNC200F	DKULVNC200P



### DKULV/CP NO

Pneumatically actuated diaphragm valve with female union ends for solvent welding, BS series  
Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>1</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	41	131	97	90	1"	1/4"	97	735	DKULVNO012E	DKULVNO012F	DKULVNO012P
3/4"	20	10	151	30	69	24	50	154	97	108	1 1/4"	1/4"	116	797	DKULVNO034E	DKULVNO034F	DKULVNO034P
1"	25	10	159	33	78	24	58	166	97	116	1 1/2"	1/4"	121	1025	DKULVNO100E	DKULVNO100F	DKULVNO100P
1 1/4"	32	10	163	30	82	24	72	194	97	134	2"	1/4"	142	1151	DKULVNO114E	DKULVNO114F	DKULVNO114P
1 1/2"	40	10	207	35	112	24	79	222	126	154	2 1/4"	1/4"	162	2462	DKULVNO112E	DKULVNO112F	DKULVNO112P
2"	50	10	245	46	142	24	98	266	157	184	2 3/4"	1/4"	194	4522	DKULVNO200E	DKULVNO200F	DKULVNO200P

# DIMENSIONS

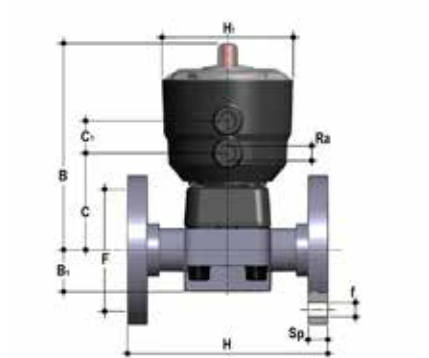
## DK/CP DN 15÷65 PVC-U



### DKULV/CP DA

Pneumatically actuated diaphragm valve with female union ends for solvent welding, BS series Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>0</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	41	131	97	90	1"	1/4"	97	615	DKULVDA012E	DKULVDA012F	DKULVDA012P
3/4"	20	10	151	30	69	24	50	154	97	108	1 1/4"	1/4"	116	677	DKULVDA034E	DKULVDA034F	DKULVDA034P
1"	25	10	159	33	78	24	58	166	97	116	1 1/2"	1/4"	121	905	DKULVDA100E	DKULVDA100F	DKULVDA100P
1 1/4"	32	10	163	30	82	24	72	194	97	134	2"	1/4"	142	1031	DKULVDA114E	DKULVDA114F	DKULVDA114P
1 1/2"	40	10	207	35	112	24	79	222	126	154	2 1/4"	1/4"	162	2220	DKULVDA112E	DKULVDA112F	DKULVDA112P
2"	50	10	245	46	142	24	98	266	157	184	2 3/4"	1/4"	194	4084	DKULVDA200E	DKULVDA200F	DKULVDA200P



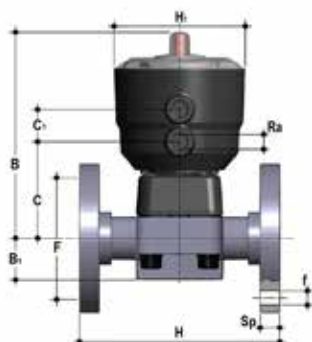
### DKOV/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled PN10/16. Face to face according to EN 558-1. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>3</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	65	14	130	97	1/4"	4	13.5	925	DKOVNC020E	DKOVNC020F	DKOVNC020P
25	20	10	151	30	69	24	75	14	150	97	1/4"	4	13.5	1005	DKOVNC025E	DKOVNC025F	DKOVNC025P
32	25	10	159	33	78	24	85	14	160	97	1/4"	4	13.5	1271	DKOVNC032E	DKOVNC032F	DKOVNC032P
40	32	10	163	30	82	24	100	18	180	97	1/4"	4	14	1461	DKOVNC040E	DKOVNC040F	DKOVNC040P
50	40	10	207	35	112	24	110	18	200	126	1/4"	4	16	3336	DKOVNC050E	DKOVNC050F	DKOVNC050P
63	50	10	245	46	142	24	125	18	230	157	1/4"	4	16	6671	DKOVNC063E	DKOVNC063F	DKOVNC063P
75	65	10	245	46	142	24	145	18	290	157	1/4"	4	21	7272	DKOVNC075E	DKOVNC075F	DKOVNC075P

# DIMENSIONS

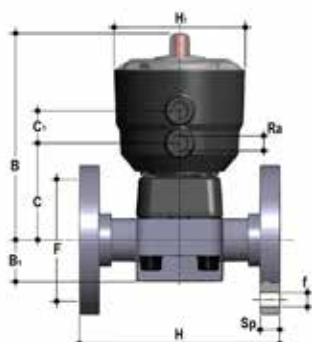
## DK/CP DN 15÷65 PVC-U



### DKOV/CP NO

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled PN10/16. Face to face according to EN 558-1. Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>2</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	65	14	130	97	1/4"	4	13.5	925	DKOVNO020E	DKOVNO020F	DKOVNO020P
25	20	10	151	30	69	24	75	14	150	97	1/4"	4	13.5	1005	DKOVNO025E	DKOVNO025F	DKOVNO025P
32	25	10	159	33	78	24	85	14	160	97	1/4"	4	13.5	1271	DKOVNO032E	DKOVNO032F	DKOVNO032P
40	32	10	163	30	82	24	100	18	180	97	1/4"	4	14	1461	DKOVNO040E	DKOVNO040F	DKOVNO040P
50	40	10	207	35	112	24	110	18	200	126	1/4"	4	16	2876	DKOVNO050E	DKOVNO050F	DKOVNO050P
63	50	10	245	46	142	24	125	18	230	157	1/4"	4	16	4889	DKOVNO063E	DKOVNO063F	DKOVNO063P
75	65	10	245	46	142	24	145	18	290	157	1/4"	4	21	5490	DKOVNO075E	DKOVNO075F	DKOVNO075P



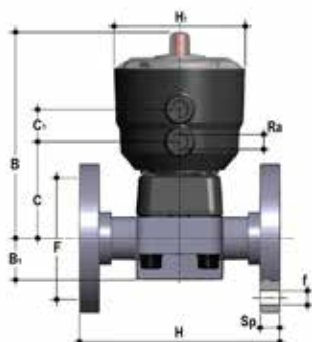
### DKOV/CP DA

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled PN10/16. Face to face according to EN 558-1. Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>2</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	65	14	130	97	1/4"	4	13.5	805	DKOVDA020E	DKOVDA020F	DKOVDA020P
25	20	10	151	30	69	24	75	14	150	97	1/4"	4	13.5	875	DKOVDA025E	DKOVDA025F	DKOVDA025P
32	25	10	159	33	78	24	85	14	160	97	1/4"	4	13.5	1151	DKOVDA032E	DKOVDA032F	DKOVDA032P
40	32	10	163	30	82	24	100	18	180	97	1/4"	4	14	1351	DKOVDA040E	DKOVDA040F	DKOVDA040P
50	40	10	207	35	112	24	110	18	200	126	1/4"	4	16	2634	DKOVDA050E	DKOVDA050F	DKOVDA050P
63	50	10	245	46	142	24	125	18	230	157	1/4"	4	16	4451	DKOVDA063E	DKOVDA063F	DKOVDA063P
75	65	10	245	46	142	24	145	18	290	157	1/4"	4	21	5052	DKOVDA075E	DKOVDA075F	DKOVDA075P

# DIMENSIONS

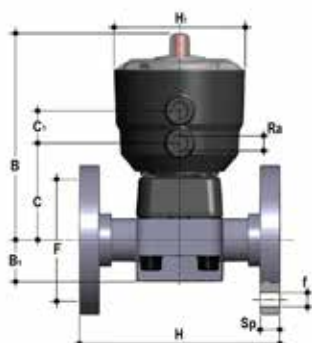
## DK/CP DN 15÷65 PVC-U



### DKOAV/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>2</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	60.30	14	108	97	1/4"	4	13.5	925	DKOAVNC012E	DKOAVNC012F	DKOAVNC012P
3/4"	20	10	151	30	69	24	69.90	15.7	120	97	1/4"	4	13.5	1005	DKOAVNC034E	DKOAVNC034F	DKOAVNC034P
1"	25	10	159	33	78	24	79.40	15.7	131	97	1/4"	4	13.5	1271	DKOAVNC100E	DKOAVNC100F	DKOAVNC100P
1" 1/4	32	10	163	30	82	24	88.90	15.7	162	97	1/4"	4	14	1461	DKOAVNC114E	DKOAVNC114F	DKOAVNC114P
1" 1/2	40	10	207	35	112	24	98.40	15.7	180	126	1/4"	4	16	3336	DKOAVNC112E	DKOAVNC112F	DKOAVNC112P
2"	50	10	245	46	142	24	120.70	19	210	157	1/4"	4	16	6671	DKOAVNC200E	DKOAVNC200F	DKOAVNC200P
2" 1/2	65	10	245	46	142	24	139.70	19	250	157	1/4"	4	21	7272	DKOAVNC212E	DKOAVNC212F	DKOAVNC212P



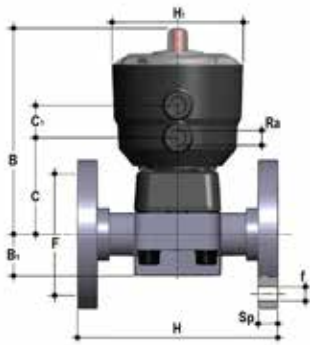
### DKOAV/CP NO

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF. Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>2</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	60.30	14	108	97	1/4"	4	13.5	925	DKOAVNO012E	DKOAVNO012F	DKOAVNO012P
3/4"	20	10	151	30	69	24	69.90	15.7	120	97	1/4"	4	13.5	1005	DKOAVNO034E	DKOAVNO034F	DKOAVNO034P
1"	25	10	159	33	78	24	79.40	15.7	131	97	1/4"	4	13.5	1271	DKOAVNO100E	DKOAVNO100F	DKOAVNO100P
1" 1/4	32	10	163	30	82	24	88.90	15.7	162	97	1/4"	4	14	1461	DKOAVNO114E	DKOAVNO114F	DKOAVNO114P
1" 1/2	40	10	207	35	112	24	98.40	15.7	180	126	1/4"	4	16	2876	DKOAVNO112E	DKOAVNO112F	DKOAVNO112P
2"	50	10	245	46	142	24	120.70	19	210	157	1/4"	4	16	4889	DKOAVNO200E	DKOAVNO200F	DKOAVNO200P
2" 1/2	65	10	245	46	142	24	139.70	19	250	157	1/4"	4	21	5490	DKOAVNO212E	DKOAVNO212F	DKOAVNO212P

# DIMENSIONS

## DK/CP DN 15÷65 PVC-U



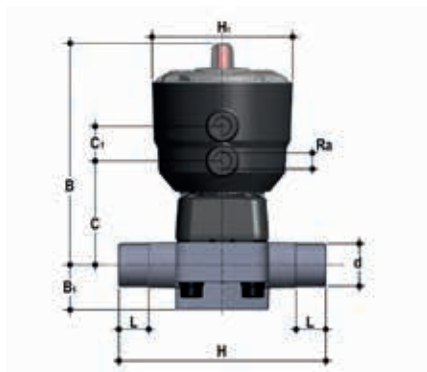
### DKOAV/CP DA

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF. Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>2</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	60.30	14	108	97	1/4"	4	13.5	805	DKOAVDA012E	DKOAVDA012F	DKOAVDA012P
3/4"	20	10	151	30	69	24	69.90	15.7	120	97	1/4"	4	13.5	875	DKOAVDA034E	DKOAVDA034F	DKOAVDA034P
1"	25	10	159	33	78	24	79.40	15.7	131	97	1/4"	4	13.5	1151	DKOAVDA100E	DKOAVDA100F	DKOAVDA100P
1" 1/4	32	10	163	30	82	24	88.90	15.7	162	97	1/4"	4	14	1351	DKOAVDA114E	DKOAVDA114F	DKOAVDA114P
1" 1/2	40	10	207	35	112	24	98.40	15.7	180	126	1/4"	4	16	2634	DKOAVDA112E	DKOAVDA112F	DKOAVDA112P
2"	50	10	245	46	142	24	120.70	19	210	157	1/4"	4	16	4451	DKOAVDA200E	DKOAVDA200F	DKOAVDA200P
2" 1/2	65	10	245	46	142	24	139.70	19	250	157	1/4"	4	21	5052	DKOAVDA212E	DKOAVDA212F	DKOAVDA212P

# DIMENSIONS

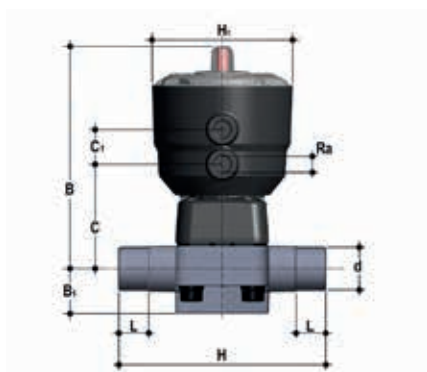
## DK/CP DN 15÷65 PVC-C



### DKDC/CP NC

Pneumatically actuated diaphragm valve with male ends for solvent welding, metric series.  
Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	H	H <sub>1</sub>	L	R <sub>a</sub>	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	124	97	16	1/4"	701	DKDCNC020E	DKDCNC020F	DKDCNC020P
25	20	10	151	30	69	24	144	97	19	1/4"	726	DKDCNC025E	DKDCNC025F	DKDCNC025P
32	25	10	159	33	78	24	154	97	22	1/4"	931	DKDCNC032E	DKDCNC032F	DKDCNC032P
40	32	10	163	30	82	24	174	97	26	1/4"	978	DKDCNC040E	DKDCNC040F	DKDCNC040P
50	40	10	207	35	112	24	194	126	31	1/4"	2736	DKDCNC050E	DKDCNC050F	DKDCNC050P
63	50	10	245	46	142	24	224	157	38	1/4"	5974	DKDCNC063E	DKDCNC063F	DKDCNC063P
75	65	10	245	46	142	24	284	157	44	1/4"	6155	DKDCNC075E	DKDCNC075F	DKDCNC075P



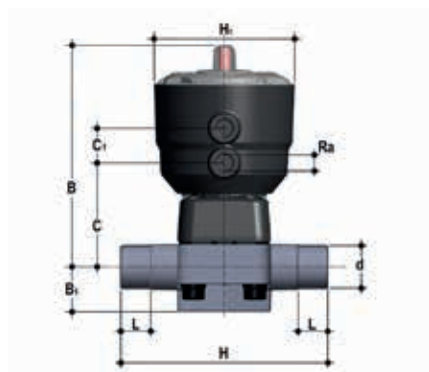
### DKDC/CP NO

Pneumatically actuated diaphragm valve with male ends for solvent welding, metric series.  
Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	H	H <sub>1</sub>	L	R <sub>a</sub>	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	124	97	16	1/4"	701	DKDCNO020E	DKDCNO020F	DKDCNO020P
25	20	10	151	30	69	24	144	97	19	1/4"	726	DKDCNO025E	DKDCNO025F	DKDCNO025P
32	25	10	159	33	78	24	154	97	22	1/4"	931	DKDCNO032E	DKDCNO032F	DKDCNO032P
40	32	10	163	30	82	24	174	97	26	1/4"	978	DKDCNO040E	DKDCNO040F	DKDCNO040P
50	40	10	207	35	112	24	194	126	31	1/4"	2276	DKDCNO050E	DKDCNO050F	DKDCNO050P
63	50	10	245	46	142	24	224	157	38	1/4"	4192	DKDCNO063E	DKDCNO063F	DKDCNO063P
75	65	10	245	46	142	24	284	157	44	1/4"	4373	DKDCNO075E	DKDCNO075F	DKDCNO075P

# DIMENSIONS

## DK/CP DN 15÷65 PVC-C



### DKDC/CP DA

Pneumatically actuated diaphragm valve with male ends for solvent welding, metric series.  
Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	H	H <sub>1</sub>	L	R <sub>1</sub>	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	124	97	16	1/4"	581	DKDCDA020E	DKDCDA020F	DKDCDA020P
25	20	10	151	30	69	24	144	97	19	1/4"	606	DKDCDA025E	DKDCDA025F	DKDCDA025P
32	25	10	159	33	78	24	154	97	22	1/4"	811	DKDCDA032E	DKDCDA032F	DKDCDA032P
40	32	10	163	30	82	24	174	97	26	1/4"	858	DKDCDA040E	DKDCDA040F	DKDCDA040P
50	40	10	207	35	112	24	194	126	31	1/4"	2034	DKDCDA050E	DKDCDA050F	DKDCDA050P
63	50	10	245	46	142	24	224	157	38	1/4"	3754	DKDCDA063E	DKDCDA063F	DKDCDA063P
75	65	10	245	46	142	24	284	157	44	1/4"	3935	DKDCDA075E	DKDCDA075F	DKDCDA075P



### DKUIC/CP NC

Pneumatically actuated diaphragm valve with female union ends for solvent welding, metric series Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>1</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	41	129	97	90	1"	1/4"	100	744	DKUICNC020E	DKUICNC020F	DKUICNC020P
25	20	10	151	30	69	24	50	154	97	108	1 1/4"	1/4"	116	811	DKUICNC025E	DKUICNC025F	DKUICNC025P
32	25	10	159	33	78	24	58	168	97	116	1 1/2"	1/4"	124	1047	DKUICNC032E	DKUICNC032F	DKUICNC032P
40	32	10	163	30	82	24	72	192	97	134	2"	1/4"	140	1180	DKUICNC040E	DKUICNC040F	DKUICNC040P
50	40	10	207	35	112	24	79	222	126	154	2 1/4"	1/4"	160	2968	DKUICNC050E	DKUICNC050F	DKUICNC050P
63	50	10	245	46	142	24	98	266	157	184	2 3/4"	1/4"	190	6388	DKUICNC063E	DKUICNC063F	DKUICNC063P



# DIMENSIONS

## DK/CP DN 15÷65 PVC-C



### DKUIC/CP NO

Pneumatically actuated diaphragm valve with female union ends for solvent welding, metric series Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>1</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	41	129	97	90	1"	1/4"	100	744	DKUICNO020E	DKUICNO020F	DKUICNO020P
25	20	10	151	30	69	24	50	154	97	108	1 1/4"	1/4"	116	811	DKUICNO025E	DKUICNO025F	DKUICNO025P
32	25	10	159	33	78	24	58	168	97	116	1 1/2"	1/4"	124	1047	DKUICNO032E	DKUICNO032F	DKUICNO032P
40	32	10	163	30	82	24	72	192	97	134	2"	1/4"	140	1180	DKUICNO040E	DKUICNO040F	DKUICNO040P
50	40	10	207	35	112	24	79	222	126	154	2 1/4"	1/4"	160	2508	DKUICNO050E	DKUICNO050F	DKUICNO050P
63	50	10	245	46	142	24	98	266	157	184	2 3/4"	1/4"	190	4606	DKUICNO063E	DKUICNO063F	DKUICNO063P



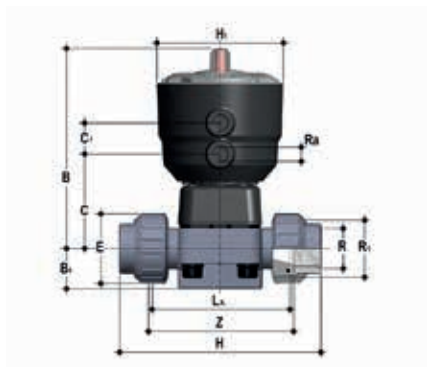
### DKUIC/CP DA

Pneumatically actuated diaphragm valve with female union ends, metric series. Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>1</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	41	129	97	90	1"	1/4"	100	624	DKUICDA020E	DKUICDA020F	DKUICDA020P
25	20	10	151	30	69	24	50	154	97	108	1 1/4"	1/4"	116	691	DKUICDA025E	DKUICDA025F	DKUICDA025P
32	25	10	159	33	78	24	58	168	97	116	1 1/2"	1/4"	124	927	DKUICDA032E	DKUICDA032F	DKUICDA032P
40	32	10	163	30	82	24	72	192	97	134	2"	1/4"	140	1060	DKUICDA040E	DKUICDA040F	DKUICDA040P
50	40	10	207	35	112	24	79	222	126	154	2 1/4"	1/4"	160	2266	DKUICDA050E	DKUICDA050F	DKUICDA050P
63	50	10	245	46	142	24	98	266	157	184	2 3/4"	1/4"	190	4168	DKUICDA063E	DKUICDA063F	DKUICDA063P

# DIMENSIONS

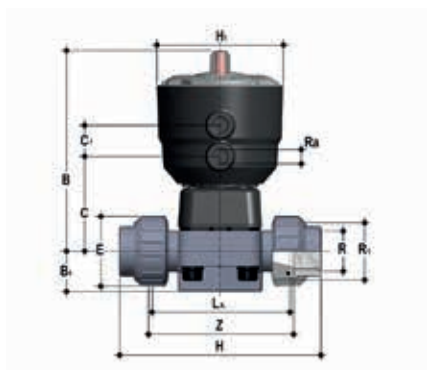
## DK/CP DN 15÷65 PVC-C



### DKUFC/CP NC

Pneumatically actuated diaphragm valve with BSP threaded female union ends. Normally Closed function

R	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>1</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	41	131	97	90	1"	1/4"	97	744	DKUFCNC012E	DKUFCNC012F	DKUFCNC012P
3/4"	20	10	151	30	69	24	50	151	97	108	1 1/4"	1/4"	118	811	DKUFCNC034E	DKUFCNC034F	DKUFCNC034P
1"	25	10	159	33	78	24	58	165	97	116	1 1/2"	1/4"	127	1047	DKUFCNC100E	DKUFCNC100F	DKUFCNC100P
1 1/4"	32	10	163	30	82	24	72	188	97	134	2"	1/4"	145	1180	DKUFCNC114E	DKUFCNC114F	DKUFCNC114P
1 1/2"	40	10	207	35	112	24	79	208	126	154	2 1/2"	1/4"	165	2968	DKUFCNC112E	DKUFCNC112F	DKUFCNC112P
2"	50	10	245	46	142	24	98	246	157	184	2 3/4"	1/4"	195	6388	DKUFCNC200E	DKUFCNC200F	DKUFCNC200P



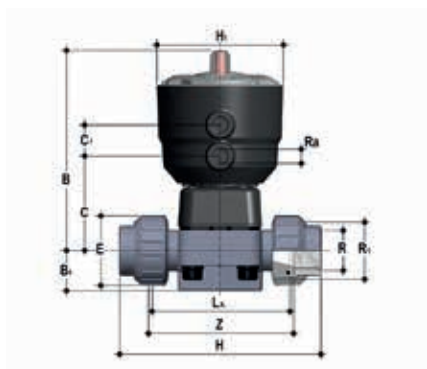
### DKUFC/CP NO

Pneumatically actuated diaphragm valve with BSP threaded female union ends. Normally Open function

R	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>1</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	41	131	97	90	1"	1/4"	97	744	DKUFCNO012E	DKUFCNO012F	DKUFCNO012P
3/4"	20	10	151	30	69	24	50	151	97	108	1 1/4"	1/4"	118	811	DKUFCNO034E	DKUFCNO034F	DKUFCNO034P
1"	25	10	159	33	78	24	58	165	97	116	1 1/2"	1/4"	127	1047	DKUFCNO100E	DKUFCNO100F	DKUFCNO100P
1 1/4"	32	10	163	30	82	24	72	188	97	134	2"	1/4"	145	1180	DKUFCNO114E	DKUFCNO114F	DKUFCNO114P
1 1/2"	40	10	207	35	112	24	79	208	126	154	2 1/2"	1/4"	165	2508	DKUFCNO112E	DKUFCNO112F	DKUFCNO112P
2"	50	10	245	46	142	24	98	246	157	184	2 3/4"	1/4"	195	4606	DKUFCNO200E	DKUFCNO200F	DKUFCNO200P

# DIMENSIONS

## DK/CP DN 15÷65 PVC-C



### DKUFC/CP DA

Pneumatically actuated diaphragm valve with BSP threaded female union ends. Double-Acting function

R	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>0</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	41	131	97	90	1"	1/4"	97	624	DKUFCDA012E	DKUFCDA012F	DKUFCDA012P
3/4"	20	10	151	30	69	24	50	151	97	108	1 1/4"	1/4"	118	691	DKUFCDA034E	DKUFCDA034F	DKUFCDA034P
1"	25	10	159	33	78	24	58	165	97	116	1 1/2"	1/4"	127	927	DKUFCDA100E	DKUFCDA100F	DKUFCDA100P
1 1/4"	32	10	163	30	82	24	72	188	97	134	2"	1/4"	145	1060	DKUFCDA114E	DKUFCDA114F	DKUFCDA114P
1 1/2"	40	10	207	35	112	24	79	208	126	154	2 1/2"	1/4"	165	2266	DKUFCDA112E	DKUFCDA112F	DKUFCDA112P
2"	50	10	245	46	142	24	98	246	157	184	2 3/4"	1/4"	195	4168	DKUFCDA200E	DKUFCDA200F	DKUFCDA200P



### DKUAC/CP NC

Pneumatically actuated diaphragm valve with female union ends for solvent welding, ASTM series Normally Closed function

R	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>0</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	41	143	97	90	1"	1/4"	98	744	DKUACNC012E	DKUACNC012F	DKUACNC012P
3/4"	20	10	151	30	69	24	50	167	97	108	1 1/4"	1/4"	115	811	DKUACNC034E	DKUACNC034F	DKUACNC034P
1"	25	10	159	33	78	24	58	180	97	116	1 1/2"	1/4"	122	1047	DKUACNC100E	DKUACNC100F	DKUACNC100P
1 1/4"	32	10	163	30	82	24	72	208	97	134	2"	1/4"	144	1180	DKUACNC114E	DKUACNC114F	DKUACNC114P
1 1/2"	40	10	207	35	112	24	79	234	126	154	2 1/2"	1/4"	164	2968	DKUACNC112E	DKUACNC112F	DKUACNC112P
2"	50	10	245	46	142	24	98	272	157	184	2 3/4"	1/4"	195	6388	DKUACNC200E	DKUACNC200F	DKUACNC200P

# DIMENSIONS

## DK/CP DN 15÷65 PVC-C



### DKUAC/CP NO

Pneumatically actuated diaphragm valve with female union ends for solvent welding, ASTM series Normally Open function

R	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>o</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	41	143	97	90	1"	1/4"	98	744	DKUACNO012E	DKUACNO012F	DKUACNO012P
3/4"	20	10	151	30	69	24	50	167	97	108	1 1/4"	1/4"	115	811	DKUACNO034E	DKUACNO034F	DKUACNO034P
1"	25	10	159	33	78	24	58	180	97	116	1 1/2"	1/4"	122	1047	DKUACNO100E	DKUACNO100F	DKUACNO100P
1 1/4"	32	10	163	30	82	24	72	208	97	134	2"	1/4"	144	1180	DKUACNO114E	DKUACNO114F	DKUACNO114P
1 1/2"	40	10	207	35	112	24	79	234	126	154	2 1/2"	1/4"	164	2508	DKUACNO112E	DKUACNO112F	DKUACNO112P
2"	50	10	245	46	142	24	98	272	157	184	2 3/4"	1/4"	195	4606	DKUACNO200E	DKUACNO200F	DKUACNO200P



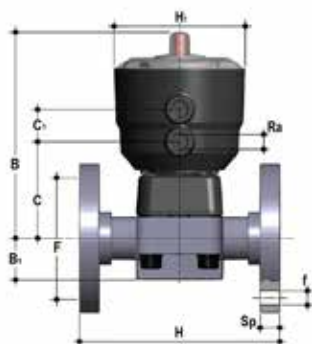
### DKUAC/CP DA

Pneumatically actuated diaphragm valve with female union ends for solvent welding, ASTM series Double-Acting function

R	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>o</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	41	143	97	90	1"	1/4"	98	624	DKUACDA012E	DKUACDA012F	DKUACDA012P
3/4"	20	10	151	30	69	24	50	167	97	108	1 1/4"	1/4"	115	691	DKUACDA034E	DKUACDA034F	DKUACDA034P
1"	25	10	159	33	78	24	58	180	97	116	1 1/2"	1/4"	122	927	DKUACDA100E	DKUACDA100F	DKUACDA100P
1 1/4"	32	10	163	30	82	24	72	208	97	134	2"	1/4"	144	1060	DKUACDA114E	DKUACDA114F	DKUACDA114P
1 1/2"	40	10	207	35	112	24	79	234	126	154	2 1/2"	1/4"	164	2266	DKUACDA112E	DKUACDA112F	DKUACDA112P
2"	50	10	245	46	142	24	98	272	157	184	2 3/4"	1/4"	195	4168	DKUACDA200E	DKUACDA200F	DKUACDA200P

# DIMENSIONS

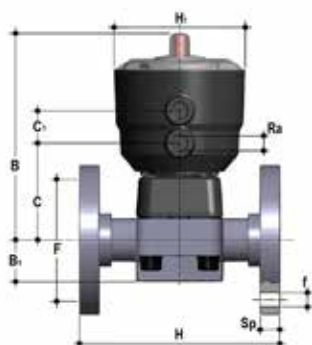
## DK/CP DN 15÷65 PVC-C



### DKOC/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled PN10/16. Face to face according to EN 558-1. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>2</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	65	14	130	97	1/4"	4	13.5	962	DKOCNC020E	DKOCNC020F	DKOCNC020P
25	20	10	151	30	69	24	75	14	150	97	1/4"	4	13.5	1053	DKOCNC025E	DKOCNC025F	DKOCNC025P
32	25	10	159	33	78	24	85	14	160	97	1/4"	4	13.5	1339	DKOCNC032E	DKOCNC032F	DKOCNC032P
40	32	10	163	30	82	24	100	18	180	97	1/4"	4	14	1553	DKOCNC040E	DKOCNC040F	DKOCNC040P
50	40	10	207	35	112	24	110	18	200	126	1/4"	4	16	3471	DKOCNC050E	DKOCNC050F	DKOCNC050P
63	50	10	245	46	142	24	125	18	230	157	1/4"	4	16	6862	DKOCNC063E	DKOCNC063F	DKOCNC063P
75	65	10	245	46	142	24	145	18	290	157	1/4"	4	21	7535	DKOCNC075E	DKOCNC075F	DKOCNC075P



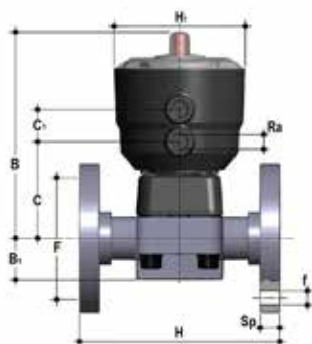
### DKOC/CP NO

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled PN10/16. Face to face according to EN 558-1. Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>2</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	65	14	130	97	1/4"	4	13.5	962	DKOCNO020E	DKOCNO020F	DKOCNO020P
25	20	10	151	30	69	24	75	14	150	97	1/4"	4	13.5	1053	DKOCNO025E	DKOCNO025F	DKOCNO025P
32	25	10	159	33	78	24	85	14	160	97	1/4"	4	13.5	1339	DKOCNO032E	DKOCNO032F	DKOCNO032P
40	32	10	163	30	82	24	100	18	180	97	1/4"	4	14	1553	DKOCNO040E	DKOCNO040F	DKOCNO040P
50	40	10	207	35	112	24	110	18	200	126	1/4"	4	16	3011	DKOCNO050E	DKOCNO050F	DKOCNO050P
63	50	10	245	46	142	24	125	18	230	157	1/4"	4	16	5080	DKOCNO063E	DKOCNO063F	DKOCNO063P
75	65	10	245	46	142	24	145	18	290	157	1/4"	4	21	5753	DKOCNO075E	DKOCNO075F	DKOCNO075P

# DIMENSIONS

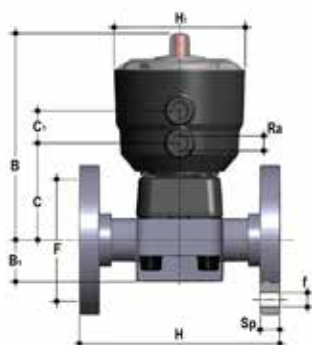
## DK/CP DN 15÷65 PVC-C



### DKOC/CP DA

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled PN10/16. Face to face according to EN 558-1. Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>a</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	65	14	130	97	1/4"	4	13.5	842	DKOCDA020E	DKOCDA020F	DKOCDA020P
25	20	10	151	30	69	24	75	14	150	97	1/4"	4	13.5	923	DKOCDA025E	DKOCDA025F	DKOCDA025P
32	25	10	159	33	78	24	85	14	160	97	1/4"	4	13.5	1219	DKOCDA032E	DKOCDA032F	DKOCDA032P
40	32	10	163	30	82	24	100	18	180	97	1/4"	4	14	1443	DKOCDA040E	DKOCDA040F	DKOCDA040P
50	40	10	207	35	112	24	110	18	200	126	1/4"	4	16	2769	DKOCDA050E	DKOCDA050F	DKOCDA050P
63	50	10	245	46	142	24	125	18	230	157	1/4"	4	16	4642	DKOCDA063E	DKOCDA063F	DKOCDA063P
75	65	10	245	46	142	24	145	18	290	157	1/4"	4	21	5315	DKOCDA075E	DKOCDA075F	DKOCDA075P



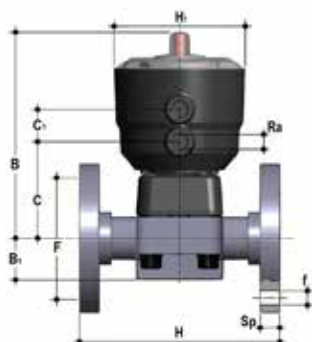
### DKOAC/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>a</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	60.30	14	108	97	1/4"	4	13.5	962	DKOACNC012E	DKOACNC012F	DKOACNC012P
3/4"	20	10	151	30	69	24	69.90	15.7	120	97	1/4"	4	13.5	1053	DKOACNC034E	DKOACNC034F	DKOACNC034P
1"	25	10	159	33	78	24	79.40	15.7	131	97	1/4"	4	13.5	1339	DKOACNC100E	DKOACNC100F	DKOACNC100P
1" 1/4	32	10	163	30	82	24	88.90	15.7	162	97	1/4"	4	14	1553	DKOACNC114E	DKOACNC114F	DKOACNC114P
1" 1/2	40	10	207	35	112	24	98.40	15.7	180	126	1/4"	4	16	3471	DKOACNC112E	DKOACNC112F	DKOACNC112P
2"	50	10	245	46	142	24	120.70	19	210	157	1/4"	4	16	6862	DKOACNC200E	DKOACNC200F	DKOACNC200P
2" 1/2	65	10	245	46	142	24	139.70	19	250	157	1/4"	4	21	7535	DKOACNC212E	DKOACNC212F	DKOACNC212P

# DIMENSIONS

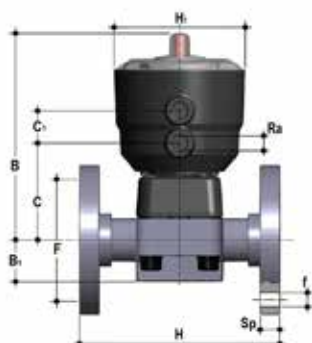
## DK/CP DN 15÷65 PVC-C



### DKOAC/CP NO

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF. Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>2</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	60.30	14	108	97	1/4"	4	13.5	962	DKOACNO012E	DKOACNO012F	DKOACNO012P
3/4"	20	10	151	30	69	24	69.90	15.7	120	97	1/4"	4	13.5	1053	DKOACNO034E	DKOACNO034F	DKOACNO034P
1"	25	10	159	33	78	24	79.40	15.7	131	97	1/4"	4	13.5	1339	DKOACNO100E	DKOACNO100F	DKOACNO100P
1" 1/4	32	10	163	30	82	24	88.90	15.7	162	97	1/4"	4	14	1553	DKOACNO114E	DKOACNO114F	DKOACNO114P
1" 1/2	40	10	207	35	112	24	98.40	15.7	180	126	1/4"	4	16	3011	DKOACNO112E	DKOACNO112F	DKOACNO112P
2"	50	10	245	46	142	24	120.70	19	210	157	1/4"	4	16	5080	DKOACNO200E	DKOACNO200F	DKOACNO200P
2" 1/2	65	10	245	46	142	24	139.70	19	250	157	1/4"	4	21	5753	DKOACNO212E	DKOACNO212F	DKOACNO212P



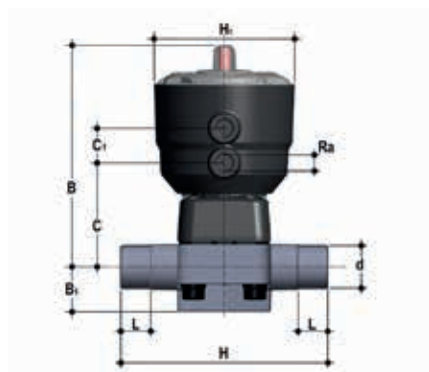
### DKOAC/CP DA

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF. Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>2</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	60.30	14	108	97	1/4"	4	13.5	842	DKOACDA012E	DKOACDA012F	DKOACDA012P
3/4"	20	10	151	30	69	24	69.90	15.7	120	97	1/4"	4	13.5	923	DKOACDA034E	DKOACDA034F	DKOACDA034P
1"	25	10	159	33	78	24	79.40	15.7	131	97	1/4"	4	13.5	1219	DKOACDA100E	DKOACDA100F	DKOACDA100P
1" 1/4	32	10	163	30	82	24	88.90	15.7	162	97	1/4"	4	14	1443	DKOACDA114E	DKOACDA114F	DKOACDA114P
1" 1/2	40	10	207	35	112	24	98.40	15.7	180	126	1/4"	4	16	2769	DKOACDA112E	DKOACDA112F	DKOACDA112P
2"	50	10	245	46	142	24	120.70	19	210	157	1/4"	4	16	4642	DKOACDA200E	DKOACDA200F	DKOACDA200P
2" 1/2	65	10	245	46	142	24	139.70	19	250	157	1/4"	4	21	5315	DKOACDA212E	DKOACDA212F	DKOACDA212P

# DIMENSIONS

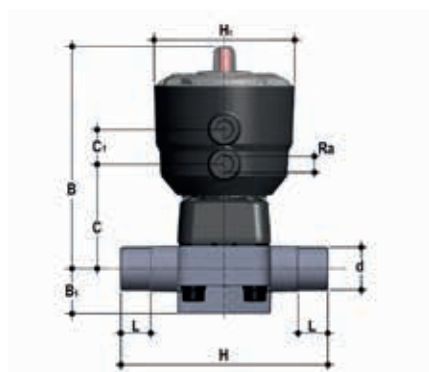
## DK/CP DN 15÷65 PP-H



### DKDM/CP NC

Pneumatically actuated diaphragm valve with male ends for socket fusion, metric series.  
Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	H	H <sub>1</sub>	L	R <sub>2</sub>	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	124	97	16	1/4"	665	DKDMNC020E	DKDMNC020F	DKDMNC020P
25	20	10	151	30	69	24	144	97	19	1/4"	680	DKDMNC025E	DKDMNC025F	DKDMNC025P
32	25	10	159	33	78	24	154	97	22	1/4"	855	DKDMNC032E	DKDMNC032F	DKDMNC032P
40	32	10	163	30	82	24	174	97	26	1/4"	885	DKDMNC040E	DKDMNC040F	DKDMNC040P
50	40	10	207	35	112	24	194	126	31	1/4"	2542	DKDMNC050E	DKDMNC050F	DKDMNC050P
63	50	10	245	46	142	24	224	157	38	1/4"	5800	DKDMNC063E	DKDMNC063F	DKDMNC063P
75	65	10	245	46	142	24	284	157	44	1/4"	5950	DKDMNC075E	DKDMNC075F	DKDMNC075P



### DKDM/CP NO

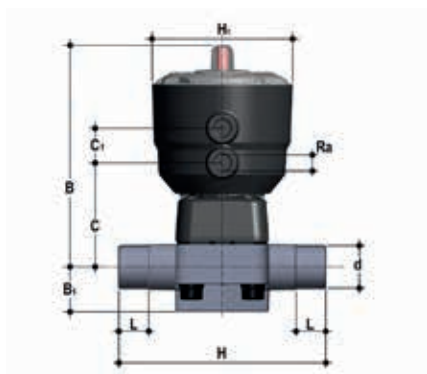
Pneumatically actuated diaphragm valve with male ends for socket fusion, metric series.  
Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	H	H <sub>1</sub>	L	R <sub>2</sub>	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	124	97	16	1/4"	665	DKDMNO020E	DKDMNO020F	DKDMNO020P
25	20	10	151	30	69	24	144	97	19	1/4"	680	DKDMNO025E	DKDMNO025F	DKDMNO025P
32	25	10	159	33	78	24	154	97	22	1/4"	855	DKDMNO032E	DKDMNO032F	DKDMNO032P
40	32	10	163	30	82	24	174	97	26	1/4"	885	DKDMNO040E	DKDMNO040F	DKDMNO040P
50	40	10	207	35	112	24	194	126	31	1/4"	2082	DKDMNO050E	DKDMNO050F	DKDMNO050P
63	50	10	245	46	142	24	224	157	38	1/4"	4018	DKDMNO063E	DKDMNO063F	DKDMNO063P
75	65	10	245	46	142	24	284	157	44	1/4"	4168	DKDMNO075E	DKDMNO075F	DKDMNO075P



# DIMENSIONS

## DK/CP DN 15÷65 PP-H



### DKDM/CP DA

Pneumatically actuated diaphragm valve with male ends for socket fusion, metric series. Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	H	H <sub>1</sub>	L	R <sub>1</sub>	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	124	97	16	1/4"	545	DKDMA020E	DKDMA020F	DKDMA020P
25	20	10	151	30	69	24	144	97	19	1/4"	560	DKDMA025E	DKDMA025F	DKDMA025P
32	25	10	159	33	78	24	154	97	22	1/4"	735	DKDMA032E	DKDMA032F	DKDMA032P
40	32	10	163	30	82	24	174	97	26	1/4"	765	DKDMA040E	DKDMA040F	DKDMA040P
50	40	10	207	35	112	24	194	126	31	1/4"	1840	DKDMA050E	DKDMA050F	DKDMA050P
63	50	10	245	46	142	24	224	157	38	1/4"	3580	DKDMA063E	DKDMA063F	DKDMA063P
75	65	10	245	46	142	24	284	157	44	1/4"	3730	DKDMA075E	DKDMA075F	DKDMA075P



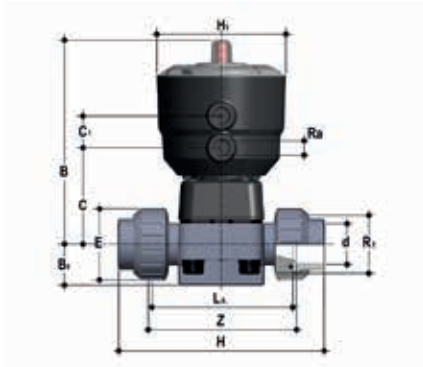
### DKUIM/CP NC

Pneumatically actuated diaphragm valve with female union ends for socket fusion, metric series. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>0</sub>	R <sub>1</sub>	R <sub>0</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	41	129	97	90	1"	1/4"	100	689	DKUIMNC020E	DKUIMNC020F	DKUIMNC020P
25	20	10	151	30	69	24	50	154	97	108	1 1/4"	1/4"	116	735	DKUIMNC025E	DKUIMNC025F	DKUIMNC025P
32	25	10	159	33	78	24	58	168	97	116	1 1/2"	1/4"	124	930	DKUIMNC032E	DKUIMNC032F	DKUIMNC032P
40	32	10	163	30	82	24	72	192	97	134	2"	1/4"	140	1016	DKUIMNC040E	DKUIMNC040F	DKUIMNC040P
50	40	10	207	35	112	24	79	222	126	154	2 1/4"	1/4"	160	2711	DKUIMNC050E	DKUIMNC050F	DKUIMNC050P
63	50	10	245	46	142	24	98	266	157	184	2 3/4"	1/4"	190	5929	DKUIMNC063E	DKUIMNC063F	DKUIMNC063P

# DIMENSIONS

## DK/CP DN 15÷65 PP-H



### DKUIM/CP NO

Pneumatically actuated diaphragm valve with female union ends for socket fusion, metric series. Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>0</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	41	129	97	90	1"	1/4"	100	689	DKUIMNO020E	DKUIMNO020F	DKUIMNO020P
25	20	10	151	30	69	24	50	154	97	108	1 1/4"	1/4"	116	735	DKUIMNO025E	DKUIMNO025F	DKUIMNO025P
32	25	10	159	33	78	24	58	168	97	116	1 1/2"	1/4"	124	930	DKUIMNO032E	DKUIMNO032F	DKUIMNO032P
40	32	10	163	30	82	24	72	192	97	134	2"	1/4"	140	1016	DKUIMNO040E	DKUIMNO040F	DKUIMNO040P
50	40	10	207	35	112	24	79	222	126	154	2 1/4"	1/4"	160	2251	DKUIMNO050E	DKUIMNO050F	DKUIMNO050P
63	50	10	245	46	142	24	98	266	157	184	2 3/4"	1/4"	190	4147	DKUIMNO063E	DKUIMNO063F	DKUIMNO063P



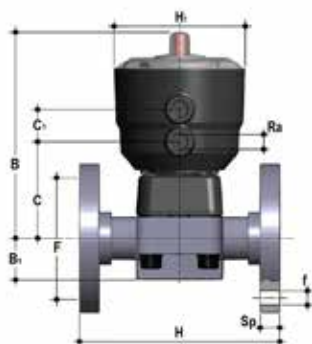
### DKUIM/CP DA

Pneumatically actuated diaphragm valve with female union ends for socket fusion, metric series. Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>0</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	41	129	97	90	1"	1/4"	100	569	DKUIMDA020E	DKUIMDA020F	DKUIMDA020P
25	20	10	151	30	69	24	50	154	97	108	1 1/4"	1/4"	116	615	DKUIMDA025E	DKUIMDA025F	DKUIMDA025P
32	25	10	159	33	78	24	58	168	97	116	1 1/2"	1/4"	124	810	DKUIMDA032E	DKUIMDA032F	DKUIMDA032P
40	32	10	163	30	82	24	72	192	97	134	2"	1/4"	140	896	DKUIMDA040E	DKUIMDA040F	DKUIMDA040P
50	40	10	207	35	112	24	79	222	126	154	2 1/4"	1/4"	160	2009	DKUIMDA050E	DKUIMDA050F	DKUIMDA050P
63	50	10	245	46	142	24	98	266	157	184	2 3/4"	1/4"	190	3709	DKUIMDA063E	DKUIMDA063F	DKUIMDA063P

# DIMENSIONS

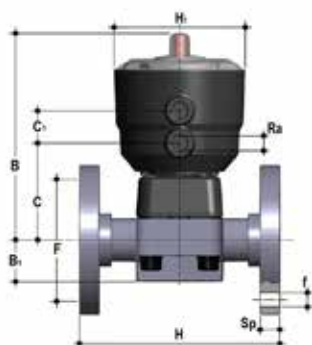
## DK/CP DN 15÷65 PP-H



### DKOM/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled PN10/16. Face to face according to EN 558-1. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>a</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	65	14	130	97	1/4"	4	13.5	817	DKOMNC020E	DKOMNC020F	DKOMNC020P
25	20	10	151	30	69	24	75	14	150	97	1/4"	4	13.5	865	DKOMNC025E	DKOMNC025F	DKOMNC025P
32	25	10	159	33	78	24	85	14	160	97	1/4"	4	13.5	1109	DKOMNC032E	DKOMNC032F	DKOMNC032P
40	32	10	163	30	82	24	100	18	180	97	1/4"	4	14	1194	DKOMNC040E	DKOMNC040F	DKOMNC040P
50	40	10	207	35	112	24	110	18	200	126	1/4"	4	16	2943	DKOMNC050E	DKOMNC050F	DKOMNC050P
63	50	10	245	46	142	24	125	18	230	157	1/4"	4	16	6115	DKOMNC063E	DKOMNC063F	DKOMNC063P
75	65	10	245	46	142	24	145	18	290	157	1/4"	4	21	6659	DKOMNC075E	DKOMNC075F	DKOMNC075P



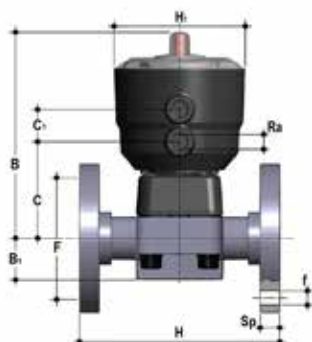
### DKOM/CP NO

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled PN10/16. Face to face according to EN 558-1. Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>a</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	65	14	130	97	1/4"	4	13.5	817	DKOMNO020E	DKOMNO020F	DKOMNO020P
25	20	10	151	30	69	24	75	14	150	97	1/4"	4	13.5	865	DKOMNO025E	DKOMNO025F	DKOMNO025P
32	25	10	159	33	78	24	85	14	160	97	1/4"	4	13.5	1109	DKOMNO032E	DKOMNO032F	DKOMNO032P
40	32	10	163	30	82	24	100	18	180	97	1/4"	4	14	1194	DKOMNO040E	DKOMNO040F	DKOMNO040P
50	40	10	207	35	112	24	110	18	200	126	1/4"	4	16	2483	DKOMNO050E	DKOMNO050F	DKOMNO050P
63	50	10	245	46	142	24	125	18	230	157	1/4"	4	16	4333	DKOMNO063E	DKOMNO063F	DKOMNO063P
75	65	10	245	46	142	24	145	18	290	157	1/4"	4	21	4877	DKOMNO075E	DKOMNO075F	DKOMNO075P

# DIMENSIONS

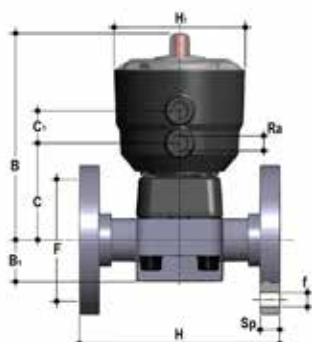
## DK/CP DN 15÷65 PP-H



### DKOM/CP DA

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled PN10/16. Face to face according to EN 558-1. Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>a</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	65	14	130	97	1/4"	4	13.5	697	DKOMDA020E	DKOMDA020F	DKOMDA020P
25	20	10	151	30	69	24	75	14	150	97	1/4"	4	13.5	735	DKOMDA025E	DKOMDA025F	DKOMDA025P
32	25	10	159	33	78	24	85	14	160	97	1/4"	4	13.5	989	DKOMDA032E	DKOMDA032F	DKOMDA032P
40	32	10	163	30	82	24	100	18	180	97	1/4"	4	14	1084	DKOMDA040E	DKOMDA040F	DKOMDA040P
50	40	10	207	35	112	24	110	18	200	126	1/4"	4	16	2241	DKOMDA050E	DKOMDA050F	DKOMDA050P
63	50	10	245	46	142	24	125	18	230	157	1/4"	4	16	3895	DKOMDA063E	DKOMDA063F	DKOMDA063P
75	65	10	245	46	142	24	145	18	290	157	1/4"	4	21	4439	DKOMDA075E	DKOMDA075F	DKOMDA075P



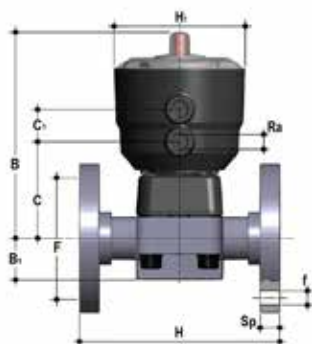
### DKOAM/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>a</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	60.30	14	108	97	1/4"	4	13.5	817	DKOAMNC012E	DKOAMNC012F	DKOAMNC012P
3/4"	20	10	151	30	69	24	69.90	15.7	120	97	1/4"	4	13.5	865	DKOAMNC034E	DKOAMNC034F	DKOAMNC034P
1"	25	10	159	33	78	24	79.40	15.7	131	97	1/4"	4	13.5	1109	DKOAMNC100E	DKOAMNC100F	DKOAMNC100P
1 1/4"	32	10	163	30	82	24	88.90	15.7	162	97	1/4"	4	14	1194	DKOAMNC114E	DKOAMNC114F	DKOAMNC114P
1 1/2"	40	10	207	35	112	24	98.40	15.7	180	126	1/4"	4	16	2943	DKOAMNC112E	DKOAMNC112F	DKOAMNC112P
2"	50	10	245	46	142	24	120.70	19	210	157	1/4"	4	16	6115	DKOAMNC200E	DKOAMNC200F	DKOAMNC200P
2 1/2"	65	10	245	46	142	24	139.70	19	250	157	1/4"	4	21	6659	DKOAMNC212E	DKOAMNC212F	DKOAMNC212P

# DIMENSIONS

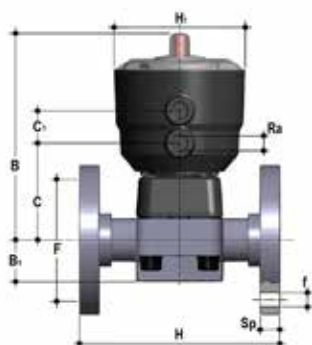
## DK/CP DN 15÷65 PP-H



### DKOAM/CP NO

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF. Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>2</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	60.30	14	108	97	1/4"	4	13.5	817	DKOAMNO012E	DKOAMNO012F	DKOAMNO012P
3/4"	20	10	151	30	69	24	69.90	15.7	120	97	1/4"	4	13.5	865	DKOAMNO034E	DKOAMNO034F	DKOAMNO034P
1"	25	10	159	33	78	24	79.40	15.7	131	97	1/4"	4	13.5	1109	DKOAMNO100E	DKOAMNO100F	DKOAMNO100P
1" 1/4	32	10	163	30	82	24	88.90	15.7	162	97	1/4"	4	14	1194	DKOAMNO114E	DKOAMNO114F	DKOAMNO114P
1" 1/2	40	10	207	35	112	24	98.40	15.7	180	126	1/4"	4	16	2483	DKOAMNO112E	DKOAMNO112F	DKOAMNO112P
2"	50	10	245	46	142	24	120.70	19	210	157	1/4"	4	16	4333	DKOAMNO200E	DKOAMNO200F	DKOAMNO200P
2" 1/2	65	10	245	46	142	24	139.70	19	250	157	1/4"	4	21	4877	DKOAMNO212E	DKOAMNO212F	DKOAMNO212P



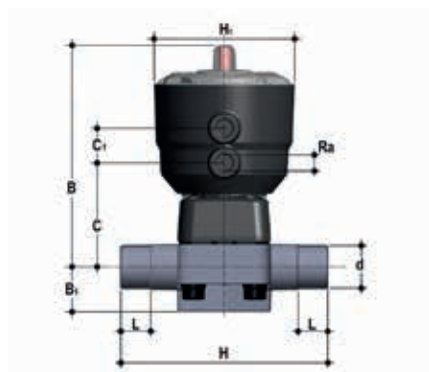
### DKOAM/CP DA

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF. Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>2</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	60.30	14	108	97	1/4"	4	13.5	697	DKOAMDA012E	DKOAMDA012F	DKOAMDA012P
3/4"	20	10	151	30	69	24	69.90	15.7	120	97	1/4"	4	13.5	735	DKOAMDA034E	DKOAMDA034F	DKOAMDA034P
1"	25	10	159	33	78	24	79.40	15.7	131	97	1/4"	4	13.5	989	DKOAMDA100E	DKOAMDA100F	DKOAMDA100P
1" 1/4	32	10	163	30	82	24	88.90	15.7	162	97	1/4"	4	14	1084	DKOAMDA114E	DKOAMDA114F	DKOAMDA114P
1" 1/2	40	10	207	35	112	24	98.40	15.7	180	126	1/4"	4	16	2241	DKOAMDA112E	DKOAMDA112F	DKOAMDA112P
2"	50	10	245	46	142	24	120.70	19	210	157	1/4"	4	16	3895	DKOAMDA200E	DKOAMDA200F	DKOAMDA200P
2" 1/2	65	10	245	46	142	24	139.70	19	250	157	1/4"	4	21	4439	DKOAMDA212E	DKOAMDA212F	DKOAMDA212P

# DIMENSIONS

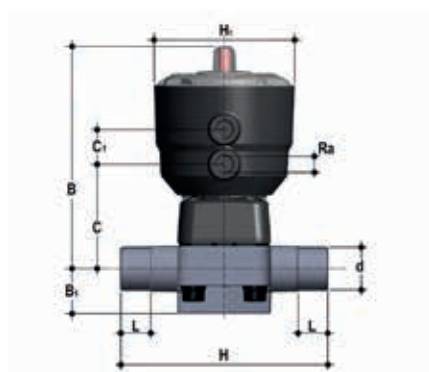
## DK/CP DN 15÷65 PVDF



### DKDF/CP NC

Pneumatically actuated diaphragm valve with male ends for socket fusion, metric series. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	H	H <sub>1</sub>	L	R <sub>2</sub>	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	124	97	16	1/4"	732	DKDFNC020E	DKDFNC020F	DKDFNC020P
25	20	10	151	30	69	24	144	97	19	1/4"	762	DKDFNC025E	DKDFNC025F	DKDFNC025P
32	25	10	159	33	78	24	154	97	22	1/4"	991	DKDFNC032E	DKDFNC032F	DKDFNC032P
40	32	10	163	30	82	24	174	97	26	1/4"	1052	DKDFNC040E	DKDFNC040F	DKDFNC040P
50	40	10	207	35	112	24	194	126	31	1/4"	2862	DKDFNC050E	DKDFNC050F	DKDFNC050P
63	50	10	245	46	142	24	224	157	38	1/4"	6357	DKDFNC063E	DKDFNC063F	DKDFNC063P
75	65	10	245	46	142	24	284	157	44	1/4"	6596	DKDFNC075E	DKDFNC075F	DKDFNC075P



### DKDF/CP NO

Pneumatically actuated diaphragm valve with male ends for socket fusion, metric series. Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	H	H <sub>1</sub>	L	R <sub>2</sub>	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	124	97	16	1/4"	732	DKDFNO020E	DKDFNO020F	DKDFNO020P
25	20	10	151	30	69	24	144	97	19	1/4"	762	DKDFNO025E	DKDFNO025F	DKDFNO025P
32	25	10	159	33	78	24	154	97	22	1/4"	991	DKDFNO032E	DKDFNO032F	DKDFNO032P
40	32	10	163	30	82	24	174	97	26	1/4"	1052	DKDFNO040E	DKDFNO040F	DKDFNO040P
50	40	10	207	35	112	24	194	126	31	1/4"	2402	DKDFNO050E	DKDFNO050F	DKDFNO050P
63	50	10	245	46	142	24	224	157	38	1/4"	4575	DKDFNO063E	DKDFNO063F	DKDFNO063P
75	65	10	245	46	142	24	284	157	44	1/4"	4814	DKDFNO075E	DKDFNO075F	DKDFNO075P

# DIMENSIONS

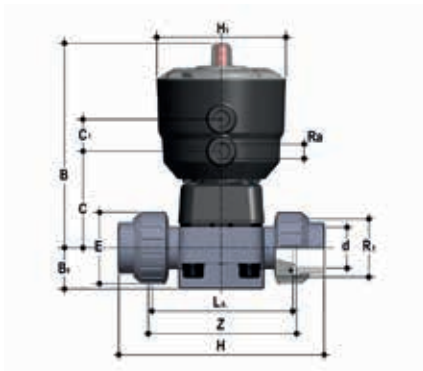
## DK/CP DN 15÷65 PVDF



### DKDF/CP DA

Pneumatically actuated diaphragm valve with male ends for socket fusion, metric series. Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	H	H <sub>1</sub>	L	R <sub>1</sub>	R <sub>2</sub>	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	124	97	16	1/4"	612		DKDFDA020E	DKDFDA020F	DKDFDA020P
25	20	10	151	30	69	24	144	97	19	1/4"	642		DKDFDA025E	DKDFDA025F	DKDFDA025P
32	25	10	159	33	78	24	154	97	22	1/4"	871		DKDFDA032E	DKDFDA032F	DKDFDA032P
40	32	10	163	30	82	24	174	97	26	1/4"	932		DKDFDA040E	DKDFDA040F	DKDFDA040P
50	40	10	207	35	112	24	194	126	31	1/4"	2160		DKDFDA050E	DKDFDA050F	DKDFDA050P
63	50	10	245	46	142	24	224	157	38	1/4"	4137		DKDFDA063E	DKDFDA063F	DKDFDA063P
75	65	10	245	46	142	24	284	157	44	1/4"	4376		DKDFDA075E	DKDFDA075F	DKDFDA075P



### DKUIF/CP NC

Pneumatically actuated diaphragm valve with female union ends for socket fusion, metric series. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>0</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	41	129	97	90	1"	1/4"	100	786	DKUIFNC020E	DKUIFNC020F	DKUIFNC020P
25	20	10	151	30	69	24	50	154	97	108	1 1/4"	1/4"	116	871	DKUIFNC025E	DKUIFNC025F	DKUIFNC025P
32	25	10	159	33	78	24	58	168	97	116	1 1/2"	1/4"	124	1140	DKUIFNC032E	DKUIFNC032F	DKUIFNC032P
40	32	10	163	30	82	24	72	192	97	134	2"	1/4"	140	1312	DKUIFNC040E	DKUIFNC040F	DKUIFNC040P
50	40	10	207	35	112	24	79	222	126	154	2 1/4"	1/4"	160	3143	DKUIFNC050E	DKUIFNC050F	DKUIFNC050P
63	50	10	245	46	142	24	98	266	157	184	2 3/4"	1/4"	190	6871	DKUIFNC063E	DKUIFNC063F	DKUIFNC063P

# DIMENSIONS

## DK/CP DN 15÷65 PVDF



### DKUIF/CP NO

Pneumatically actuated diaphragm valve with female union ends for socket fusion, metric series. Normally Open function

d	DN	PN	B	B <sub>2</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>0</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	41	129	97	90	1"	1/4"	100	786	DKUIFNO020E	DKUIFNO020F	DKUIFNO020P
25	20	10	151	30	69	24	50	154	97	108	1 1/4"	1/4"	116	871	DKUIFNO025E	DKUIFNO025F	DKUIFNO025P
32	25	10	159	33	78	24	58	168	97	116	1 1/2"	1/4"	124	1140	DKUIFNO032E	DKUIFNO032F	DKUIFNO032P
40	32	10	163	30	82	24	72	192	97	134	2"	1/4"	140	1312	DKUIFNO040E	DKUIFNO040F	DKUIFNO040P
50	40	10	207	35	112	24	79	222	126	154	2 1/4"	1/4"	160	2683	DKUIFNO050E	DKUIFNO050F	DKUIFNO050P
63	50	10	245	46	142	24	98	266	157	184	2 3/4"	1/4"	190	5089	DKUIFNO063E	DKUIFNO063F	DKUIFNO063P



### DKUIF/CP DA

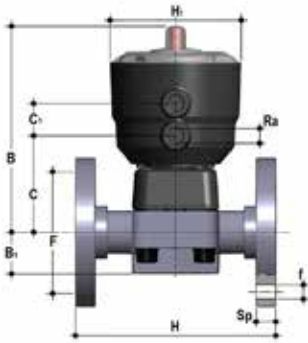
Pneumatically actuated diaphragm valve with female union ends for socket fusion, metric series. Double-Acting function

d	DN	PN	B	B <sub>2</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>0</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	41	129	97	90	1"	1/4"	100	666	DKUIFDA020E	DKUIFDA020F	DKUIFDA020P
25	20	10	151	30	69	24	50	154	97	108	1 1/4"	1/4"	116	751	DKUIFDA025E	DKUIFDA025F	DKUIFDA025P
32	25	10	159	33	78	24	58	168	97	116	1 1/2"	1/4"	124	1020	DKUIFDA032E	DKUIFDA032F	DKUIFDA032P
40	32	10	163	30	82	24	72	192	97	134	2"	1/4"	140	1192	DKUIFDA040E	DKUIFDA040F	DKUIFDA040P
50	40	10	207	35	112	24	79	222	126	154	2 1/4"	1/4"	160	2441	DKUIFDA050E	DKUIFDA050F	DKUIFDA050P
63	50	10	245	46	142	24	98	266	157	184	2 3/4"	1/4"	190	4651	DKUIFDA063E	DKUIFDA063F	DKUIFDA063P



# DIMENSIONS

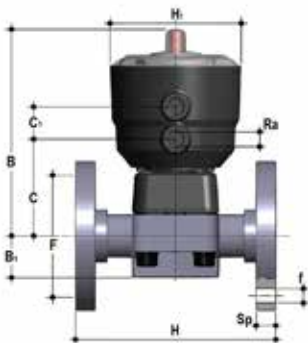
## DK/CP DN 15÷65 PVDF



### DKOF/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled PN10/16. Face to face according to EN 558-1. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>a</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	65	14	130	97	1/4"	4	13.5	1011	DKOFNC020E	DKOFNC020F	DKOFNC020P
25	20	10	151	30	69	24	75	14	150	97	1/4"	4	13.5	1117	DKOFNC025E	DKOFNC025F	DKOFNC025P
32	25	10	159	33	78	24	85	14	160	97	1/4"	4	13.5	1429	DKOFNC032E	DKOFNC032F	DKOFNC032P
40	32	10	163	30	82	24	100	18	180	97	1/4"	4	14	1675	DKOFNC040E	DKOFNC040F	DKOFNC040P
50	40	10	207	35	112	24	110	18	200	126	1/4"	4	16	3651	DKOFNC050E	DKOFNC050F	DKOFNC050P
63	50	10	245	46	142	24	125	18	230	157	1/4"	4	16	7116	DKOFNC063E	DKOFNC063F	DKOFNC063P
75	65	10	245	46	142	24	145	18	290	157	1/4"	4	21	7885	DKOFNC075E	DKOFNC075F	DKOFNC075P



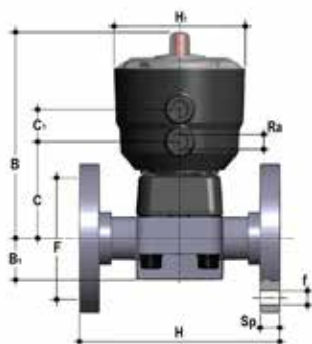
### DKOF/CP NO

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled PN10/16. Face to face according to EN 558-1. Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>a</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	65	14	130	97	1/4"	4	13.5	1011	DKOFNO020E	DKOFNO020F	DKOFNO020P
25	20	10	151	30	69	24	75	14	150	97	1/4"	4	13.5	1117	DKOFNO025E	DKOFNO025F	DKOFNO025P
32	25	10	159	33	78	24	85	14	160	97	1/4"	4	13.5	1429	DKOFNO032E	DKOFNO032F	DKOFNO032P
40	32	10	163	30	82	24	100	18	180	97	1/4"	4	14	1675	DKOFNO040E	DKOFNO040F	DKOFNO040P
50	40	10	207	35	112	24	110	18	200	126	1/4"	4	16	3191	DKOFNO050E	DKOFNO050F	DKOFNO050P
63	50	10	245	46	142	24	125	18	230	157	1/4"	4	16	5334	DKOFNO063E	DKOFNO063F	DKOFNO063P
75	65	10	245	46	142	24	145	18	290	157	1/4"	4	21	6103	DKOFNO075E	DKOFNO075F	DKOFNO075P

# DIMENSIONS

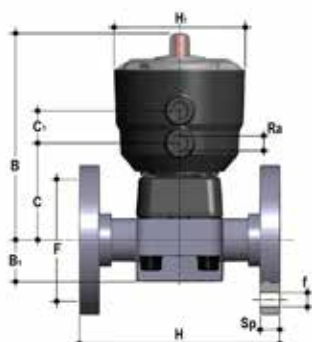
## DK/CP DN 15÷65 PVDF



### DKOF/CP DA

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled PN10/16. Face to face according to EN 558-1. Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>2</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
20	15	10	148	25	66	24	65	14	130	97	1/4"	4	13.5	891	DKOFDA020E	DKOFDA020F	DKOFDA020P
25	20	10	151	30	69	24	75	14	150	97	1/4"	4	13.5	987	DKOFDA025E	DKOFDA025F	DKOFDA025P
32	25	10	159	33	78	24	85	14	160	97	1/4"	4	13.5	1309	DKOFDA032E	DKOFDA032F	DKOFDA032P
40	32	10	163	30	82	24	100	18	180	97	1/4"	4	14	1565	DKOFDA040E	DKOFDA040F	DKOFDA040P
50	40	10	207	35	112	24	110	18	200	126	1/4"	4	16	2949	DKOFDA050E	DKOFDA050F	DKOFDA050P
63	50	10	245	46	142	24	125	18	230	157	1/4"	4	16	4896	DKOFDA063E	DKOFDA063F	DKOFDA063P
75	65	10	245	46	142	24	145	18	290	157	1/4"	4	21	5665	DKOFDA075E	DKOFDA075F	DKOFDA075P



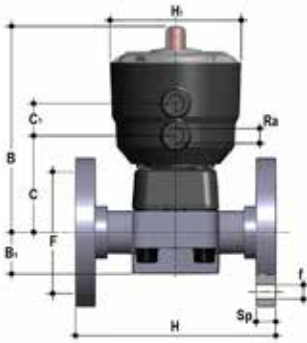
### DKOAF/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>2</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	60.30	14	108	97	1/4"	4	13.5	1011	DKOAFNC012E	DKOAFNC012F	DKOAFNC012P
3/4"	20	10	151	30	69	24	69.90	15.7	120	97	1/4"	4	13.5	1117	DKOAFNC034E	DKOAFNC034F	DKOAFNC034P
1"	25	10	159	33	78	24	79.40	15.7	131	97	1/4"	4	13.5	1429	DKOAFNC100E	DKOAFNC100F	DKOAFNC100P
1" 1/4	32	10	163	30	82	24	88.90	15.7	162	97	1/4"	4	14	1675	DKOAFNC114E	DKOAFNC114F	DKOAFNC114P
1" 1/2	40	10	207	35	112	24	98.40	15.7	180	126	1/4"	4	16	3651	DKOAFNC112E	DKOAFNC112F	DKOAFNC112P
2"	50	10	245	46	142	24	120.70	19	210	157	1/4"	4	16	7116	DKOAFNC200E	DKOAFNC200F	DKOAFNC200P
2" 1/2	65	10	245	46	142	24	139.70	19	250	157	1/4"	4	21	7885	DKOAFNC212E	DKOAFNC212F	DKOAFNC212P

# DIMENSIONS

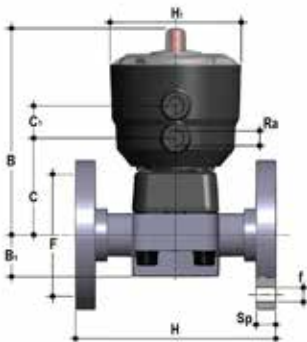
## DK/CP DN 15÷65 PVDF



### DKOAF/CP NO

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF. Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>2</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	60.30	14	108	97	1/4"	4	13.5	1011	DKOAFNO012E	DKOAFNO012F	DKOAFNO012P
3/4"	20	10	151	30	69	24	69.90	15.7	120	97	1/4"	4	13.5	1117	DKOAFNO034E	DKOAFNO034F	DKOAFNO034P
1"	25	10	159	33	78	24	79.40	15.7	131	97	1/4"	4	13.5	1429	DKOAFNO100E	DKOAFNO100F	DKOAFNO100P
1" 1/4	32	10	163	30	82	24	88.90	15.7	162	97	1/4"	4	14	1675	DKOAFNO114E	DKOAFNO114F	DKOAFNO114P
1" 1/2	40	10	207	35	112	24	98.40	15.7	180	126	1/4"	4	16	3191	DKOAFNO112E	DKOAFNO112F	DKOAFNO112P
2"	50	10	245	46	142	24	120.70	19	210	157	1/4"	4	16	5334	DKOAFNO200E	DKOAFNO200F	DKOAFNO200P
2" 1/2	65	10	245	46	142	24	139.70	19	250	157	1/4"	4	21	6103	DKOAFNO212E	DKOAFNO212F	DKOAFNO212P

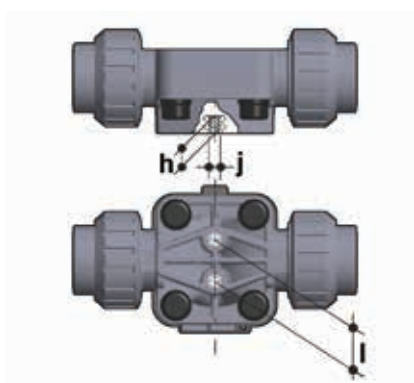


### DKOAF/CP DA

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF. Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	R <sub>2</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
1/2"	15	10	148	25	66	24	60.30	14	108	97	1/4"	4	13.5	891	DKOAFDA012E	DKOAFDA012F	DKOAFDA012P
3/4"	20	10	151	30	69	24	69.90	15.7	120	97	1/4"	4	13.5	987	DKOAFDA034E	DKOAFDA034F	DKOAFDA034P
1"	25	10	159	33	78	24	79.40	15.7	131	97	1/4"	4	13.5	1309	DKOAFDA100E	DKOAFDA100F	DKOAFDA100P
1" 1/4	32	10	163	30	82	24	88.90	15.7	162	97	1/4"	4	14	1565	DKOAFDA114E	DKOAFDA114F	DKOAFDA114P
1" 1/2	40	10	207	35	112	24	98.40	15.7	180	126	1/4"	4	16	2949	DKOAFDA112E	DKOAFDA112F	DKOAFDA112P
2"	50	10	245	46	142	24	120.70	19	210	157	1/4"	4	16	4896	DKOAFDA200E	DKOAFDA200F	DKOAFDA200P
2" 1/2	65	10	245	46	142	24	139.70	19	250	157	1/4"	4	21	5665	DKOAFDA212E	DKOAFDA212F	DKOAFDA212P

# FASTENING AND SUPPORTING



All valves, whether manual or actuated, must be adequately supported in many applications.

The DK valve series is therefore provided with an integrated bracket that permits direct anchoring of the valve body without the need of other components.

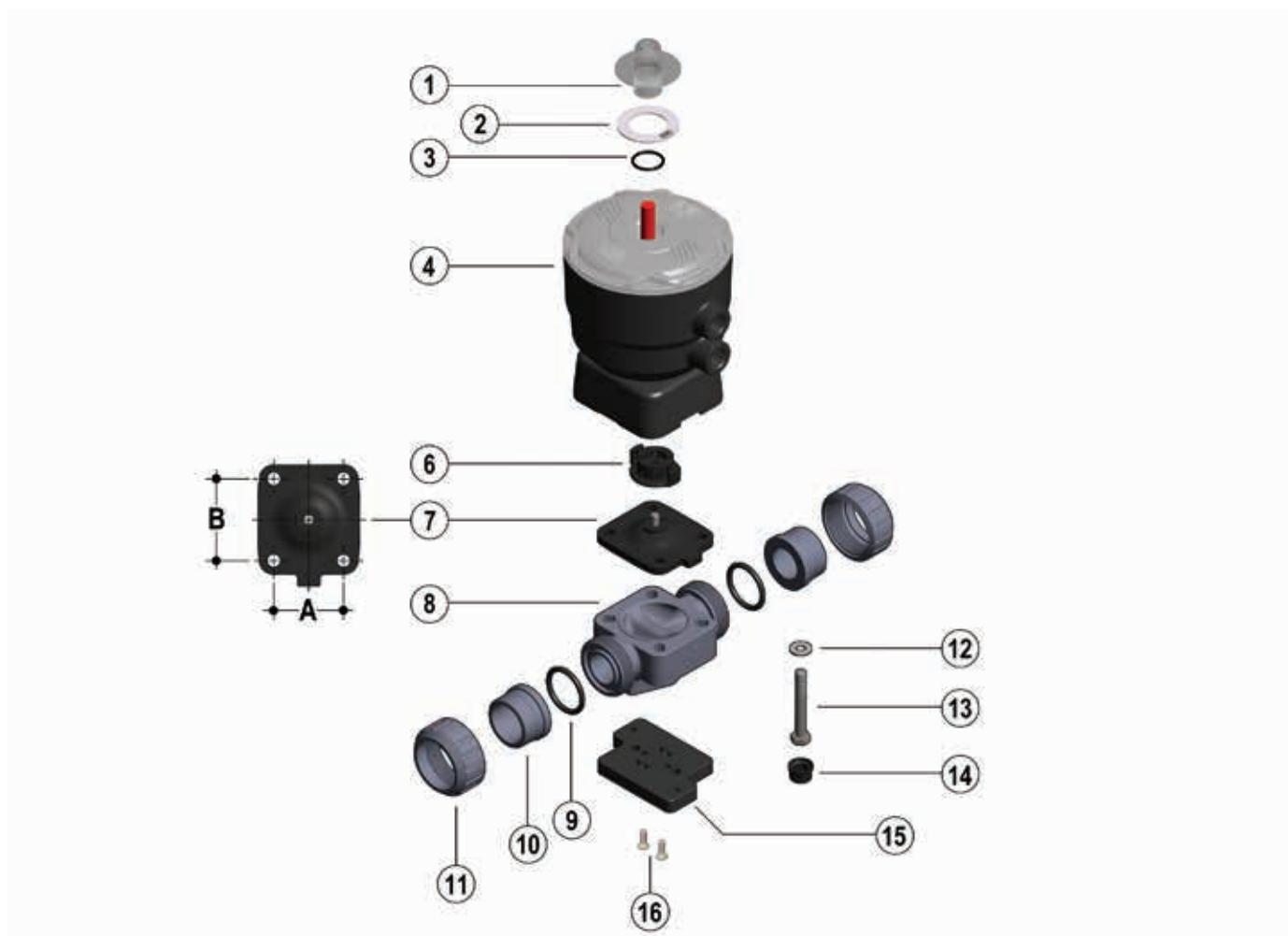
For wall or panel installation, dedicated PMDK mounting plates which are available as accessories can be used. These plates should be fastened to the valve before wall installation.

PMDK plates also allow DK valve alignment with FIP ZIKM pipe clips.

d	DN	h	l	J
20	15	10	25	M6
25	20	10	25	M6
32	25	10	25	M6
40	32	10	25	M6
50	40	13	44.5	M8
63	50	13	44.5	M8
75	65	13	44.5	M8

# COMPONENTS

## EXPLODED VIEW DN 15÷65



DN	15	20	25	32	40	50	65
A	40	40	46	46	65	78	78
B	44	44	54	54	70	82	82

- |  |  |   |
|--|--|---|
| <b>1</b> Transparent cap (PC- 1)*              | <b>8</b> Valve body (PVC-U, PVC-C,PP-H, PVDF - 1)*     | <b>12</b> Washer (Acciaio INOX - 4)     |
| <b>2</b> Customisation plate (PVC - 1)         | <b>9</b> Socket seal O-Ring (EPDM-FKM - 2)*            | <b>13</b> Bolt (Acciaio INOX - 4)       |
| <b>3</b> O-Ring (EPDM - 1)                     | <b>10</b> End connector (PVC-U, PVC-C,PP-H, PVDF - 2)* | <b>14</b> Protection plug (PE - 4)      |
| <b>4</b> Actuator (PP-GR - 1)*                 | <b>11</b> Union nut (PVC-U, PVC-C,PP-H, PVDF - 2)*     | <b>15</b> Distance plate (PP-GR - 1)**  |
| <b>6</b> Compressor (PA-GR IXEF ® - 1)         |  | <b>16</b> Screw (STAINLESS steel - 2)** |
| <b>7</b> Seal diaphragm (EPDM, FKM, PTFE - 1)* |  |   |

\* Spare parts

\*\* Accessories

The material the component is made of and the quantity supplied are shown in brackets

## DISASSEMBLY

- 1) Isolate the valve from the line (release the pressure and empty the pipeline).
- 2) Open the valve with compressed air (NC-DA) to drain any residual liquid from the valve.
- 3) Disconnect the valve from the pneumatic and electrical connections.
- 4) Unscrew the union nuts (11) and extract the valve.
- 5) Remove the protection plugs (14) and bolts (13) with their washers (12); this operation will be made easier if the actuator is pressurised (NC).
- 6) Separate the valve body (8) from the actuator (4).
- 7) Unscrew the diaphragm (7) and remove the compressor (6); this operation will be made easier if the actuator is not pressurised (NC).

## ASSEMBLY

- 1) Insert the compressor (6) on the actuator stem (4), aligning it correctly in its housing (fig. 3).
- 2) Screw the diaphragm (7) onto the stem, aligning it correctly with its housing on the actuator.
- 3) Mount the actuator (4) on the valve body (8) and screw in the bolts (13) with the relative washers (12); this operation will be made easier if the actuator is pressurised (NC).
- 4) Tighten the bolts (13) evenly (diagonally) to the tightening torque suggested on the relative instruction sheet.
- 5) Replace the protection plugs (14).
- 6) Position the valve between the end connectors (10) and tighten the union nuts (11), making sure that the socket seal O-rings (9) do not exit their seats.
- 7) Reconnect the valve to the pneumatic and electrical connections.



**Note:** All operations on equipment under pressure or containing compressed springs must be carried out under safe conditions for the operator.

Fig. 3

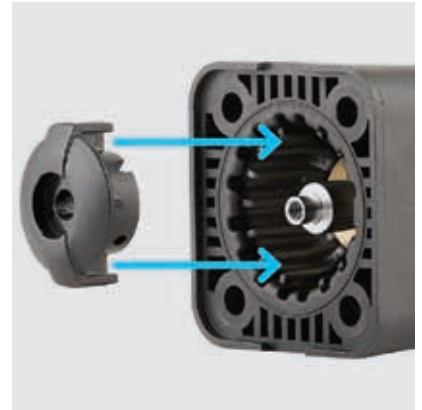


Fig. 4



# INSTALLATION

Before proceeding with installation, please follow these instructions carefully: (instructions refer to versions with union ends). The valve can be installed in any position and in any direction.

- 1) Check that the pipes to be connected to the valve are aligned in order to avoid mechanical stress on the threaded joints.
- 2) Unscrew the union nuts (11) and insert them on the pipe segments.
- 3) Solvent weld or screw the end connectors (10) onto the pipe ends.
- 4) Position the valve body between the end connectors making sure the socket seal O-Rings (9) do not exit the seats.
- 5) Completely tighten the union nuts (11).
- 6) If necessary, support the pipework with FIP pipe clips or by means of the carrier built into the valve itself (see paragraph "Fastening and supporting").
- 7) Connect the compressed air as indicated in paragraph "Compressed air connections". For valves with electric accessories, refer to the specific technical manual supplied with the accessory.

When installing in confined spaces, the connections can be oriented in line with the piping. (Fig. 4).

## WARNINGS

**Note:** before putting the valve into service, check that the bolts on the valve body (8) are tightened correctly at the suggested torque.









# DKB/CP DN 15÷65

PVC-U/PVC-C/PP-H

PNEUMATICALLY ACTUATED PN6 2-WAY DIAPHRAGM  
VALVE FOR LIMITED PRESSURE APPLICATIONS



# DKB/CP DN 15÷65

The new DKB/CP diaphragm valve is the proper solution for non-severe operating conditions that, however, require reliability and a long working life. The new internal geometry of the body optimises the fluid dynamic efficiency by increasing the flow rate and ensuring an optimum linearity of the flow adjustment curve. The DKB/CP is extremely compact and very light.

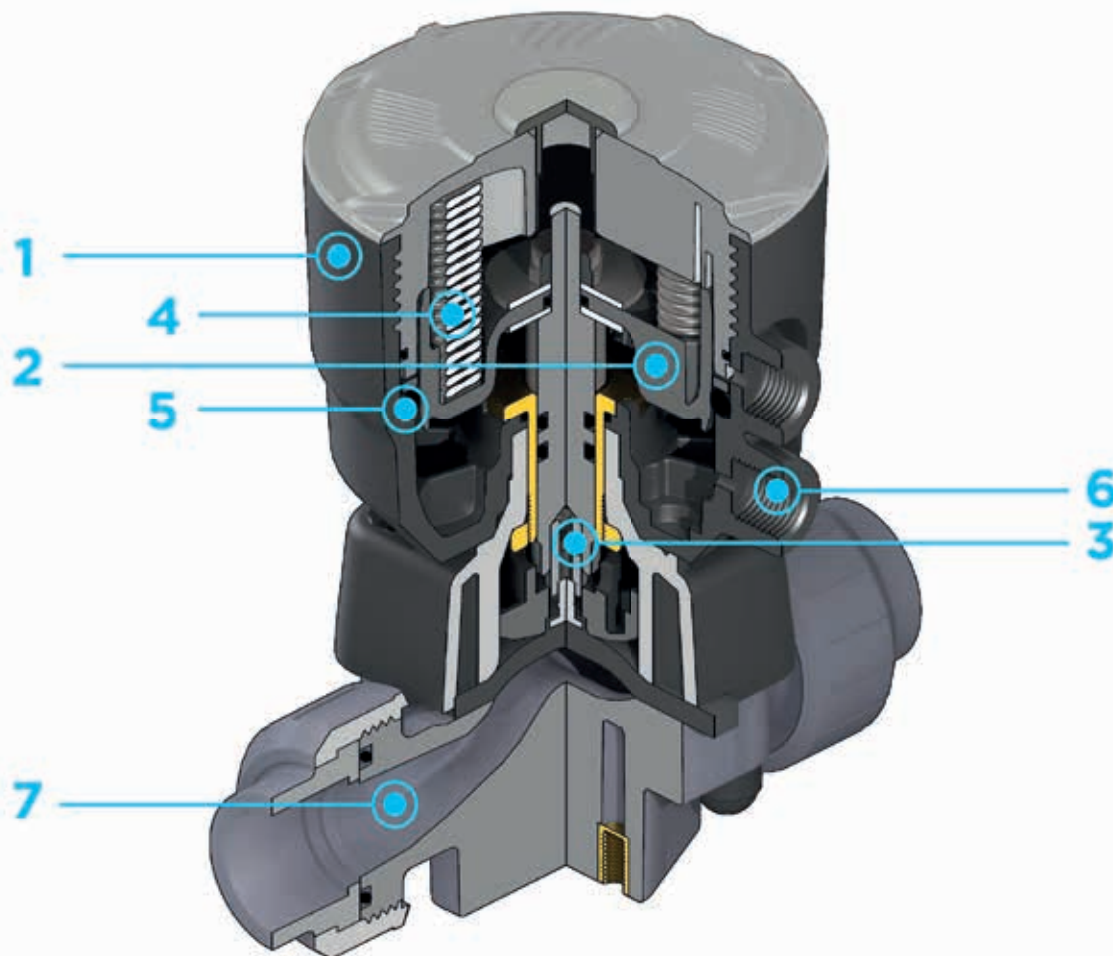
## PNEUMATICALLY ACTUATED PN6 2-WAY DIAPHRAGM VALVE FOR LIMITED PRESSURE APPLICATIONS

- Connection system for solvent weld, threaded and flanged joints
- **Optimised fluid dynamic design:** maximum output flow rate thanks to the optimised efficiency of the fluid dynamics that characterise the new internal geometry of the body
- Bonnet fastening screws in STAINLESS steel protected against the external environment by PE plugs. Absence of metal parts exposed to the external environment to prevent any risk of corrosion
- New flanged bodies: the new bodies, characterised by a monolithic flanged structure, are available in PVC-U, PVC-C and PP-H materials. This design, free of joints between body and flanges, considerably reduces mechanical stress and increases system performance
- **CDSA seal system** (Circular Diaphragm Sealing Angle) with a uniform distribution of the shutter pressure on the sealing membrane offers the following advantages:
  - Operating torque reduction.
  - Reduced mechanical stress on all valve components (actuator, body and diaphragm).
  - Low risk of the accumulation of deposits, contamination or damage to the diaphragm due to crystallisation.
  - Easy to clean valve interior.

Technical specifications - DKB	
<b>Construction</b>	Pneumatically actuated diaphragm valve with body at maximized flow rate
<b>Size range</b>	DN 15 ÷ 65
<b>Nominal pressure</b>	PN 6 with water at 20° C
<b>Temperature range</b>	<b>PVC-U:</b> 0 °C ÷ 60 °C <b>PVC-C:</b> 0° C ÷ 100° C <b>PP-H:</b> 0° C ÷ 100° C
<b>PVC-U coupling standards</b>	<b>Solvent welding:</b> EN ISO 1452, EN ISO 15493, EN ISO 10931, BS 4346-1, DIN 8063, NF T54-028, ASTM D 2467, ASTM F 439. Can be coupled to pipes according to EN ISO 1452, EN ISO 15493, EN ISO 15494, ISO 10931, DIN 8062, NF T54-016, ASTM D 1785, ASTM F 441 <b>Thread:</b> ISO 228-1, DIN 2999, ASTM D 2464. <b>Flanging system:</b> ISO 7005-1, EN ISO 1452, EN ISO 15493, EN 1092-1, EN ISO 15494, EN ISO 10931, EN 558-1, DIN 2501, ANSI B.16.5 cl. 150, JIS B 2220.
<b>PVC-C coupling standards</b>	<b>Solvent welding:</b> EN ISO 15493, ASTM F 439. Can be coupled to pipes according to EN ISO 15493, ASTM F 441. <b>Thread:</b> ISO 228-1, DIN 2999. <b>Flanging system:</b> ISO 7005-1, EN ISO 15493, EN 558-1, DIN 2501, ANSI B.16.5 cl.150
<b>PP-H coupling standards</b>	<b>Welding:</b> EN ISO 15494. Can be coupled to pipes according to EN ISO 15494. <b>Thread:</b> ISO 228-1, DIN 2999. <b>Flanging system:</b> ISO 7005-1, EN ISO 1092-1, EN 15494, EN 558-1, DIN 2501, ANSI B16.5 cl.150
<b>Reference standards</b>	<b>PVC-U construction criteria:</b> EN ISO 16138, EN ISO 1452, EN ISO 15493 <b>PVC-C construction criteria:</b> EN ISO 16138, EN ISO 15493 <b>PP-H construction criteria:</b> EN ISO 16138, EN ISO 15494 <b>Test methods and requirements:</b> ISO 9393 <b>PVC-U/PVC-C installation criteria:</b> DVS 2204, DVS 2221, UNI 11242 <b>PP-H installation criteria:</b> DVS 2202-1, DVS 2207-11, DVS 2208-1, UNI 11318
<b>Valve material</b>	PVC-U / PVC-C / PP-H
<b>Seal material</b>	EPDM
<b>Control options</b>	Pneumatic actuator

The new DKB/CP diaphragm valve has a piston actuator in PP-GR with a simplified design, ensuring essential performance.

Technical specifications - Pneumatic actuator	
<b>Construction</b>	Single-acting (NC) pneumatic piston actuator
<b>Actuator material</b>	<b>Body and bonnet:</b> PP-GR
<b>Control air pressure</b>	<b>Minimum:</b> according to working pressure and actuator function (see graphs) <b>Maximum:</b> 6 bar
<b>Power supply</b>	Dry or lubricated filtered compressed air. If using other fluids, contact the FIP service centre
<b>Control fluid temperature</b>	Max 40 °C
<b>Temperature range</b>	-20 °C ÷ 50 °C
<b>Accessories</b>	<ul style="list-style-type: none"> <li>• Pilot solenoid valves 3-5/2 ways for direct or manifold mounting</li> <li>• Distance plate</li> </ul>



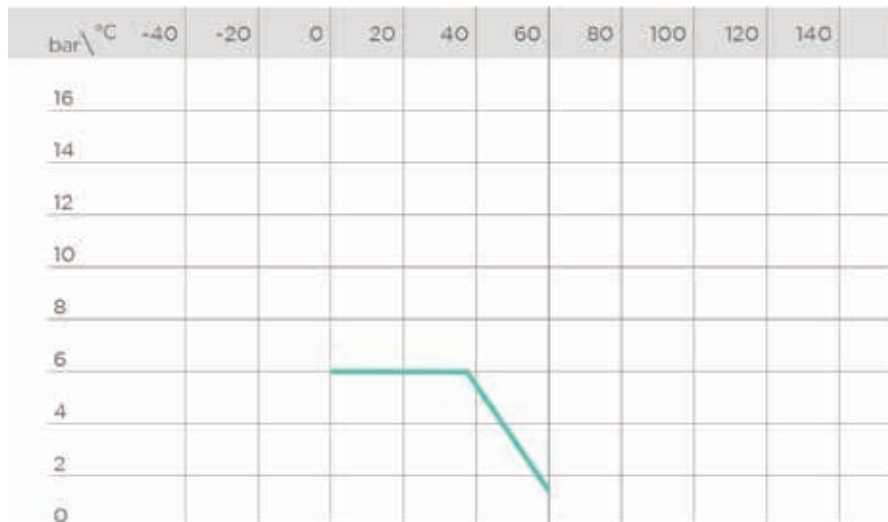
- 1** **Compact and light piston in PP-GR**, ideal for heavy-duty applications in chemically aggressive environments with a **diaphragm perimeter containment system** that ensures the perfect compression of the rubber without any lateral expansion.
- 2** **Piston in high strength IXEF®.** The high quality finishing of the external surface guarantees perfect slidability over the seal and ensures a long working life without any actuator maintenance.
- 3** High strength **stainless steel stem** with double seal O-Ring. **Floating pin connection** between the actuator stem and diaphragm to prevent concentrated loads, improve the seal and extend its lifetime.
- 4** Actuator equipped with 4 independent **cartridge springs** arranged radially to uniformly distribute the load on the piston.
- 5** **Dual function main gasket.** **Piston seal:** the gasket does not move but sits securely on the actuator cylinder instead of the piston. **External seal:** the gasket positioned above the threaded joint between the bonnet and cylinder ensures that the coupling is not stressed by the pressure inside the actuator.
- 6** Easy installation in confined spaces: **compressed air inlets with G 1/4" threaded adjustable connections** to enable alignment with the piping. PP-GR connections prevent any risk of corrosion.
- 7** **New valve body internal design.** **Substantially higher flow coefficient** and lower pressure drops. The degree of efficiency reached has also enabled the **size and weight of the valve to be reduced.** **Adjustment linearity:** the internal profiles of the valve greatly improve its characteristic curve, allowing **extremely sensitive and precise adjustment** along the entire length of the shutter stroke.

# TECHNICAL DATA

## PRESSURE VARIATION ACCORDING TO TEMPERATURE

### PVC-U BODY

For water and non-hazardous fluids with regard to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required (25 years with safety factor).



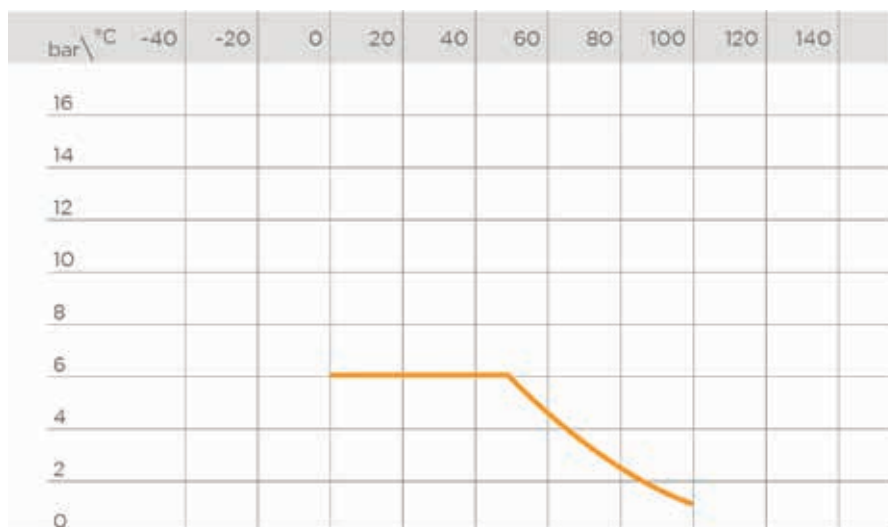
### PVC-C BODY

For water and non-hazardous fluids with regard to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required (25 years with safety factor).

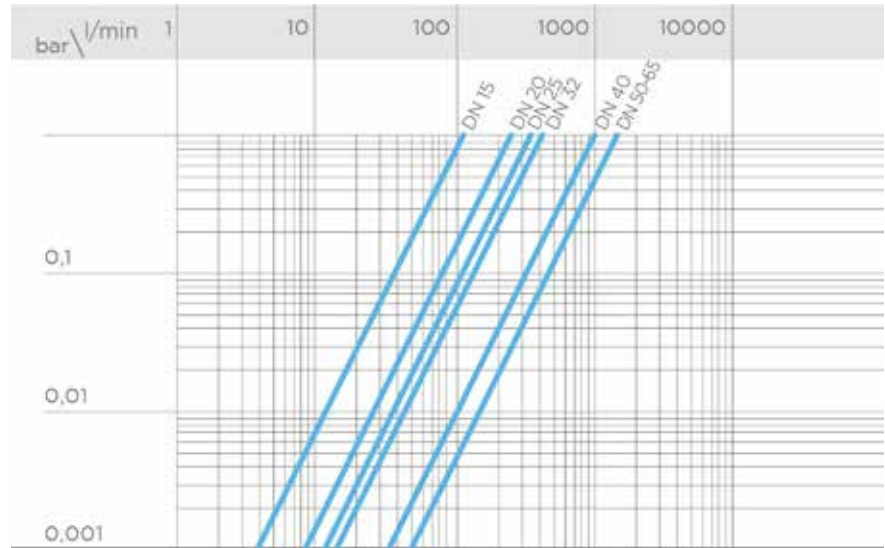


### PP-H BODY

For water and non-hazardous fluids with regard to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required (25 years with safety factor).



## PRESSURE DROP GRAPH



## $K_v$ 100 FLOW COEFFICIENT

The  $K_v$ 100 flow coefficient is the Q flow of litres per minute of water at a temperature of 20°C that will generate  $\Delta p = 1$  bar pressure drop at a certain valve position.

The  $K_v$ 100 values shown in the table are calculated with the valve completely open.

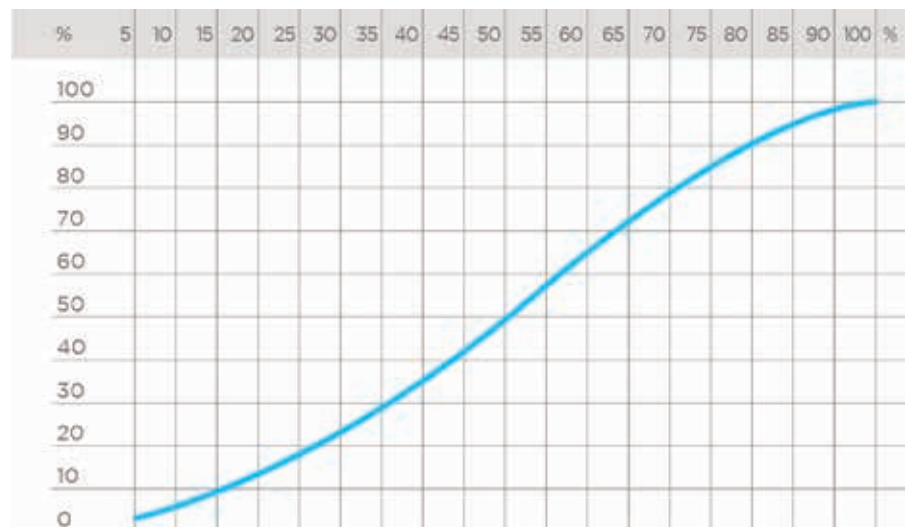
DN	15	20	25	32	40	50	65
$K_v$ 100 l/min	112	261	445	550	1087	1648	1600

## RELATIVE FLOW COEFFICIENT GRAPH

The relative flow coefficient is the flow rate through the valve as a function of the degree of valve opening.

X axis: Opening percentage of the diaphragm

Y axis: Relative flow coefficient

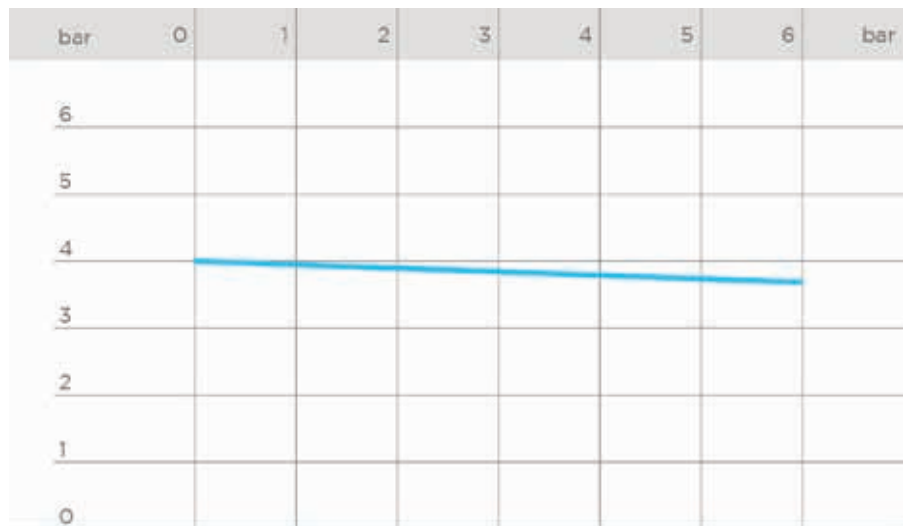


## CONTROL PRESSURE ACCORDING TO DKB/ CP NC WORKING PRESSURE

Minimum control pressure according  
to working pressure with EPDM/FKM  
diaphragm

X axis: Working pressure

Y axis: Control pressure



# PNEUMATIC ACTUATOR DATA

## FUNCTIONAL CHARACTERISTICS

		Single-acting (SA)
Function type		normally closed (NC)
Valve opening		air
Valve closing		spring

## ACTUATOR CAPACITY

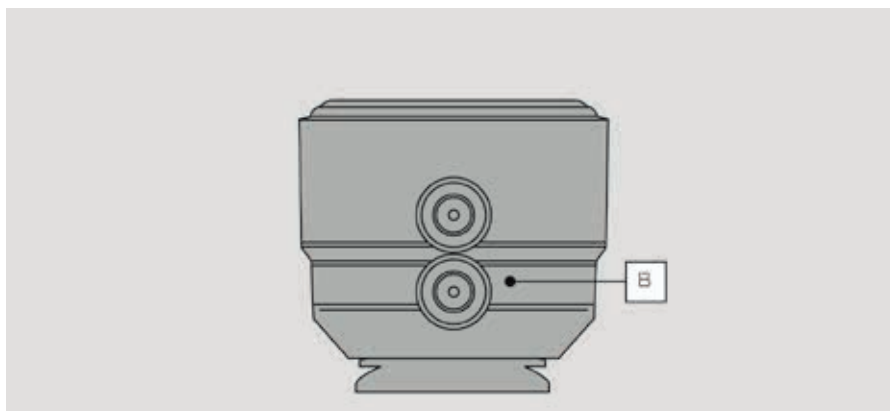
L: litre, equivalent to  $10^{-3} \text{ m}^3$

Air consumption in normal litres (or normal cubic metres) per operating cycle can be calculated by correcting according to operating conditions such as control air pressure.

DN	15 ÷ 32	40	50 ÷ 65
NC	0.12 L	0.4 L	0.64 L

## COMPRESSED AIR CONNECTIONS

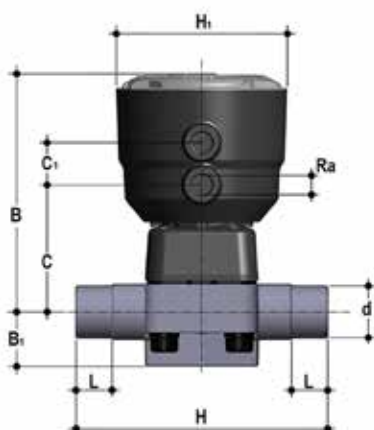
Function type	Normally closed (NC)
Valve opening	Inlet B





# DIMENSIONS

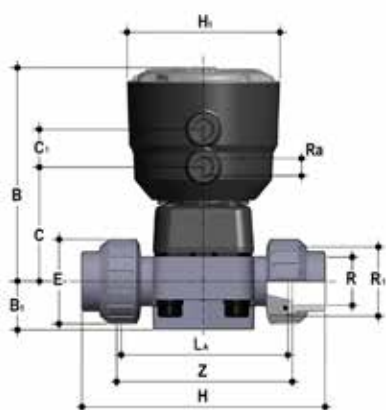
## DKB/CP DN 15÷65 PVC-U



### DKBDV/CP NC

Pneumatically actuated diaphragm valve with male ends, metric series Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	H	H <sub>1</sub>	L	R <sub>0</sub>	g	EPDM Code
20	15	6	134	25	66	24	124	97	16	1/4"	645	DKBDVNC020E
25	20	6	137	30	69	24	144	97	19	1/4"	667	DKBDVNC025E
32	25	6	145	33	78	24	154	97	22	1/4"	867	DKBDVNC032E
40	32	6	149	30	82	24	174	97	26	1/4"	911	DKBDVNC040E
50	40	6	193	35	112	24	194	126	31	1/4"	2502	DKBDVNC050E
63	50	6	231	46	142	24	224	157	38	1/4"	5598	DKBDVNC063E
75	65	6	231	46	142	24	284	157	44	1/4"	5770	DKBDVNC075E



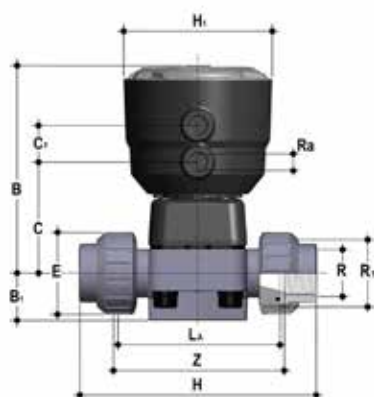
### DKBUIV/CP NC

Pneumatically actuated diaphragm valve with female union ends, metric series. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>0</sub>	R <sub>1</sub>	R <sub>0</sub>	Z	g	EPDM Code
20	15	6	134	25	66	24	41	129	97	90	1"	1/4"	100	685	DKBUIVNC020E
25	20	6	137	30	69	24	50	154	97	108	1"1/4	1/4"	116	747	DKBUIVNC025E
32	25	6	145	33	78	24	58	168	97	116	1"1/2	1/4"	124	975	DKBUIVNC032E
40	32	6	149	30	82	24	72	192	97	134	2"	1/4"	140	1101	DKBUIVNC040E
50	40	6	193	35	112	24	79	222	126	154	2"1/4	1/4"	160	2722	DKBUIVNC050E
63	50	6	231	46	142	24	98	266	157	184	2"3/4	1/4"	190	5984	DKBUIVNC063E

# DIMENSIONS

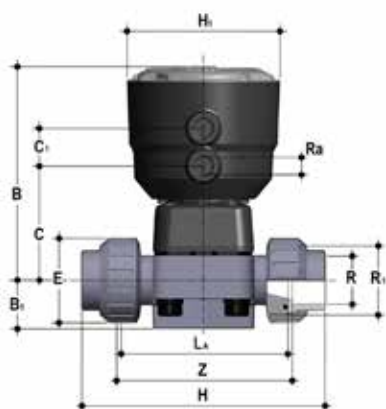
## DKB/CP DN 15÷65 PVC-U



### DKBUFV/CP NC

Pneumatically actuated diaphragm valve with BSP threaded female union ends. Normally Closed function

R	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>1</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code
1/2"	15	6	134	25	66	24	41	131	97	90	1"	1/4"	97	685	DKBUFVNC012E
3/4"	20	6	137	30	69	24	50	151	97	108	1 1/4"	1/4"	118	747	DKBUFVNC034E
1"	25	6	145	33	78	24	58	165	97	116	1 1/2"	1/4"	127	975	DKBUFVNC100E
1 1/4"	32	6	149	30	82	24	72	188	97	134	2"	1/4"	145	1101	DKBUFVNC114E
1 1/2"	40	6	193	35	112	24	79	208	126	154	2 1/2"	1/4"	165	2722	DKBUFVNC112E
2"	50	6	231	46	142	24	98	246	157	184	2 3/4"	1/4"	195	5984	DKBUFVNC200E



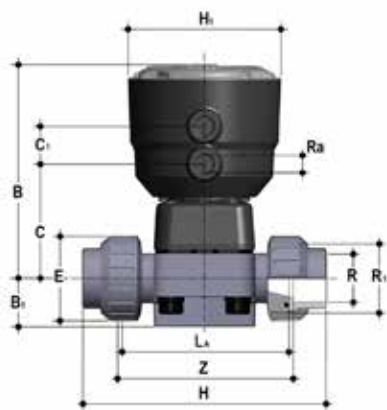
### DKBUAV/CP NC

Pneumatically actuated diaphragm valve with female union ends for solvent welding, ASTM series Normally Closed function

R	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>1</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code
1/2"	15	6	134	25	66	24	41	143	97	90	1"	1/4"	98	685	DKBUAVNC012E
3/4"	20	6	137	30	69	24	50	167	97	108	1 1/4"	1/4"	115	747	DKBUAVNC034E
1"	25	6	145	33	78	24	58	180	97	116	1 1/2"	1/4"	122	975	DKBUAVNC100E
1 1/4"	32	6	149	30	82	24	72	208	97	134	2"	1/4"	144	1101	DKBUAVNC114E
1 1/2"	40	6	193	35	112	24	79	234	126	154	2 1/2"	1/4"	164	2722	DKBUAVNC112E
2"	50	6	231	46	142	24	98	272	157	184	2 3/4"	1/4"	195	5984	DKBUAVNC200E

# DIMENSIONS

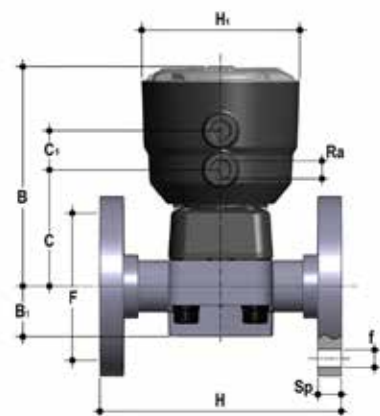
## DKB/CP DN 15÷65 PVC-U



### DKBULV/CP NC

Pneumatically actuated diaphragm valve with female union ends for solvent welding, BS series  
Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>2</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code
1/2"	15	6	134	25	66	24	41	131	97	90	1"	1/4"	97	685	DKBULVNC012E
3/4"	20	6	137	30	69	24	50	154	97	108	1 1/4"	1/4"	116	747	DKBULVNC034E
1"	25	6	145	33	78	24	58	166	97	116	1 1/2"	1/4"	121	975	DKBULVNC100E
1 1/4"	32	6	149	30	82	24	72	194	97	134	2"	1/4"	142	1101	DKBULVNC114E
1 1/2"	40	6	193	35	112	24	79	222	126	154	2 1/4"	1/4"	162	2722	DKBULVNC112E
2"	50	6	231	46	142	24	98	266	157	184	2 3/4"	1/4"	194	5984	DKBULVNC200E



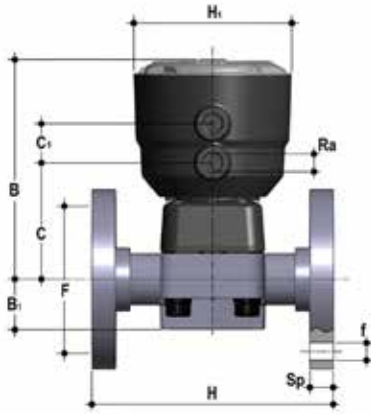
### DKBOV/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled PN10/16. Face to face according to EN 558-1. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	f	H	H <sub>1</sub>	R <sub>2</sub>	U	Sp	g	EPDM Code
20	15	6	134	25	66	24	65	14	130	97	1/4"	4	13.5	875	DKBOVNC020E
25	20	6	137	30	69	24	75	14	150	97	1/4"	4	13.5	955	DKBOVNC025E
32	25	6	145	33	78	24	85	14	160	97	1/4"	4	13.5	1221	DKBOVNC032E
40	32	6	149	30	82	24	100	18	180	97	1/4"	4	14	1411	DKBOVNC040E
50	40	6	193	35	112	24	110	18	200	126	1/4"	4	16	3136	DKBOVNC050E
63	50	6	231	46	142	24	125	18	230	157	1/4"	4	16	6351	DKBOVNC063E
75	65	6	231	46	142	24	145	18	290	157	1/4"	4	21	6952	DKBOVNC075E

# DIMENSIONS

## DKB/CP DN 15÷65 PVC-U



### DKBOAV/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	f	H	H <sub>1</sub>	R <sub>a</sub>	U	Sp	g	EPDM Code
1/2"	15	6	134	25	66	24	60.30	14	108	97	1/4"	4	13.5	875	DKBOAVNC012E
3/4"	20	6	137	30	69	24	69.90	15.7	120	97	1/4"	4	13.5	955	DKBOAVNC034E
1"	25	6	145	33	78	24	79.40	15.7	131	97	1/4"	4	13.5	1221	DKBOAVNC100E
1" 1/4	32	6	149	30	82	24	88.90	15.7	162	97	1/4"	4	14	1411	DKBOAVNC114E
1" 1/2	40	6	193	35	112	24	98.40	15.7	180	126	1/4"	4	16	3136	DKBOAVNC112E
2"	50	6	231	46	142	24	120.70	19	210	157	1/4"	4	16	6351	DKBOAVNC200E
2" 1/2	65	6	231	46	142	24	139.70	19	250	157	1/4"	4	21	6952	DKBOAVNC212E

# DIMENSIONS

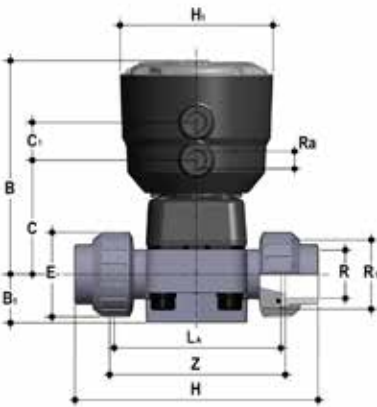
## DKB/CP DN 15÷65 PVC-C



### DKBDC/CP NC

Pneumatically actuated diaphragm valve with male ends for solvent welding, metric series. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	H	H <sub>1</sub>	L	R <sub>2</sub>	g	EPDM Code
20	15	6	134	25	66	24	124	97	16	1/4"	651	DKBDCNC020E
25	20	6	137	30	69	24	144	97	19	1/4"	676	DKBDCNC025E
32	25	6	145	33	78	24	154	97	22	1/4"	881	DKBDCNC032E
40	32	6	149	30	82	24	174	97	26	1/4"	928	DKBDCNC040E
50	40	6	193	35	112	24	194	126	31	1/4"	2536	DKBDCNC050E
63	50	6	231	46	142	24	224	157	38	1/4"	5654	DKBDCNC063E
75	65	6	231	46	142	24	284	157	44	1/4"	5835	DKBDCNC075E



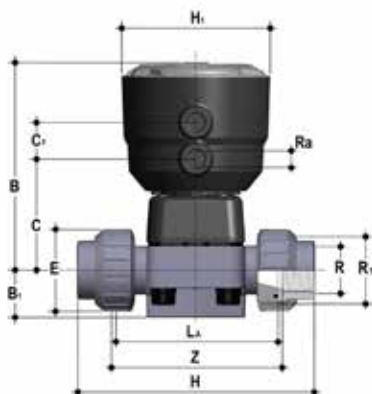
### DKBUIC/CP NC

Pneumatically actuated diaphragm valve with female union ends for solvent welding, metric series Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>2</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code
20	15	6	134	25	66	24	41	129	97	90	1"	1/4"	100	694	DKBUICNC020E
25	20	6	137	30	69	24	50	154	97	108	1"1/4	1/4"	116	761	DKBUICNC025E
32	25	6	145	33	78	24	58	168	97	116	1"1/2	1/4"	124	997	DKBUICNC032E
40	32	6	149	30	82	24	72	192	97	134	2"	1/4"	140	1130	DKBUICNC040E
50	40	6	193	35	112	24	79	222	126	154	2"1/4	1/4"	160	2768	DKBUICNC050E
63	50	6	231	46	142	24	98	266	157	184	2"3/4	1/4"	190	6068	DKBUICNC063E

# DIMENSIONS

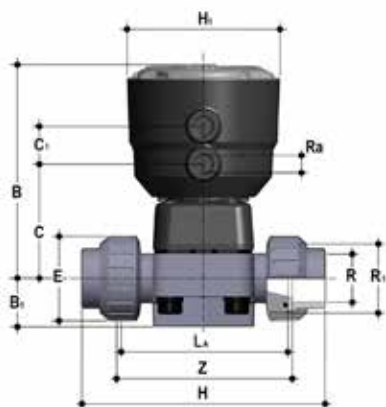
## DKB/CP DN 15÷65 PVC-C



### DKBUC/CP NC

Pneumatically actuated diaphragm valve with BSP threaded female union ends. Normally Closed function

R	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>1</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code
1/2"	15	6	134	25	66	24	41	131	97	90	1"	1/4"	97	694	DKBUCNC012E
3/4"	20	6	137	30	69	24	50	151	97	108	1"1/4	1/4"	118	761	DKBUCNC034E
1"	25	6	145	33	78	24	58	165	97	116	1"1/2	1/4"	127	997	DKBUCNC100E
1"1/4	32	6	149	30	82	24	72	188	97	134	2"	1/4"	145	1130	DKBUCNC114E
1"1/2	40	6	193	35	112	24	79	208	126	154	2"1/2	1/4"	165	2768	DKBUCNC112E
2"	50	6	231	46	142	24	98	246	157	184	2"3/4	1/4"	195	6068	DKBUCNC200E



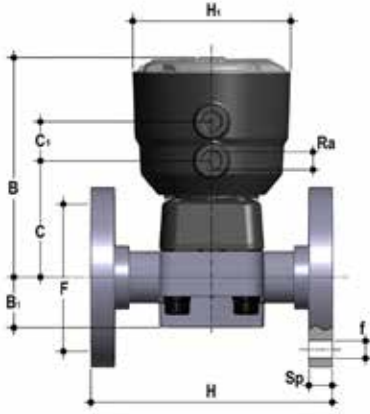
### DKBUAC/CP NC

Pneumatically actuated diaphragm valve with female union ends for solvent welding, ASTM series Normally Closed function

R	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>1</sub>	R <sub>1</sub>	R <sub>2</sub>	Z	g	EPDM Code
1/2"	15	6	134	25	66	24	41	143	97	90	1"	1/4"	98	694	DKBUACNC012E
3/4"	20	6	137	30	69	24	50	167	97	108	1"1/4	1/4"	115	761	DKBUACNC034E
1"	25	6	145	33	78	24	58	180	97	116	1"1/2	1/4"	122	997	DKBUACNC100E
1"1/4	32	6	149	30	82	24	72	208	97	134	2"	1/4"	144	1130	DKBUACNC114E
1"1/2	40	6	193	35	112	24	79	234	126	154	2"1/2	1/4"	164	2768	DKBUACNC112E
2"	50	6	231	46	142	24	98	272	157	184	2"3/4	1/4"	195	6068	DKBUACNC200E

# DIMENSIONS

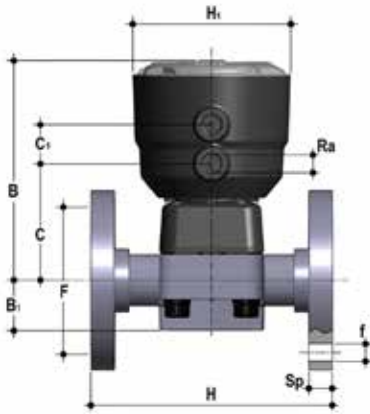
## DKB/CP DN 15÷65 PVC-C



### DKBOC/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled PN10/16. Face to face according to EN 558-1. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	f	H	H <sub>1</sub>	R <sub>3</sub>	U	Sp	g	EPDM Code
20	15	6	134	25	66	24	65	14	130	97	1/4"	4	13.5	912	DKBOCNC020E
25	20	6	137	30	69	24	75	14	150	97	1/4"	4	13.5	1003	DKBOCNC025E
32	25	6	145	33	78	24	85	14	160	97	1/4"	4	13.5	1289	DKBOCNC032E
40	32	6	149	30	82	24	100	18	180	97	1/4"	4	14	1503	DKBOCNC040E
50	40	6	193	35	112	24	110	18	200	126	1/4"	4	16	3271	DKBOCNC050E
63	50	6	231	46	142	24	125	18	230	157	1/4"	4	16	6542	DKBOCNC063E
75	65	6	231	46	142	24	145	18	290	157	1/4"	4	21	7485	DKBOCNC075E



### DKBOAC/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	f	H	H <sub>1</sub>	R <sub>3</sub>	U	Sp	g	EPDM Code
1/2"	15	6	134	25	66	24	60.30	14	108	97	1/4"	4	13.5	912	DKBOACNC012E
3/4"	20	6	137	30	69	24	69.90	15.7	120	97	1/4"	4	13.5	1003	DKBOACNC034E
1"	25	6	145	33	78	24	79.40	15.7	131	97	1/4"	4	13.5	1289	DKBOACNC100E
1" 1/4	32	6	149	30	82	24	88.90	15.7	162	97	1/4"	4	14	1503	DKBOACNC114E
1" 1/2	40	6	193	35	112	24	98.40	15.7	180	126	1/4"	4	16	3271	DKBOACNC112E
2"	50	6	231	46	142	24	120.70	19	210	157	1/4"	4	16	6542	DKBOACNC200E
2" 1/2	65	6	231	46	142	24	139.70	19	250	157	1/4"	4	21	7485	DKBOACNC212E

# DIMENSIONS

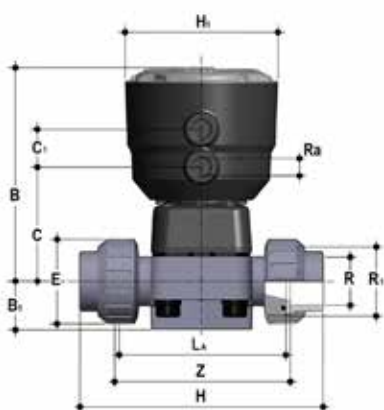
## DKB/CP DN 15÷65 PP-H



### DKBDM/CP NC

Pneumatically actuated diaphragm valve with male ends for socket welding, metric series  
Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	H	H <sub>1</sub>	L	R <sub>0</sub>	g	EPDM Code
20	15	6	134	25	66	24	124	97	16	1/4"	615	DKBDMNC020E
25	20	6	137	30	69	24	144	97	19	1/4"	630	DKBDMNC025E
32	25	6	145	33	78	24	154	97	22	1/4"	805	DKBDMNC032E
40	32	6	149	30	82	24	174	97	26	1/4"	835	DKBDMNC040E
50	40	6	193	35	112	24	194	126	31	1/4"	2342	DKBDMNC050E
63	50	6	231	46	142	24	224	157	38	1/4"	5480	DKBDMNC063E
75	65	6	231	46	142	24	284	157	44	1/4"	5630	DKBDMNC075E



### DKBUIM/CP NC

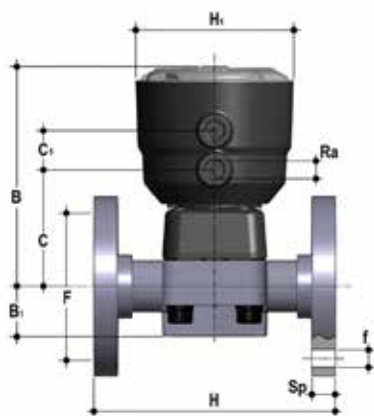
Pneumatically actuated diaphragm valve with female union ends for socket welding, metric series  
Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	L <sub>0</sub>	R <sub>1</sub>	R <sub>0</sub>	Z	g	EPDM Code
20	15	6	134	25	66	24	41	129	97	90	1"	1/4"	100	639	DKBUIMNC020E
25	20	6	137	30	69	24	50	154	97	108	1"1/4	1/4"	116	685	DKBUIMNC025E
32	25	6	145	33	78	24	58	168	97	116	1"1/2	1/4"	124	880	DKBUIMNC032E
40	32	6	149	30	82	24	72	192	97	134	2"	1/4"	140	966	DKBUIMNC040E
50	40	6	193	35	112	24	79	222	126	154	2"1/4	1/4"	160	2511	DKBUIMNC050E
63	50	6	231	46	142	24	98	266	157	184	2"3/4	1/4"	190	5609	DKBUIMNC063E



# DIMENSIONS

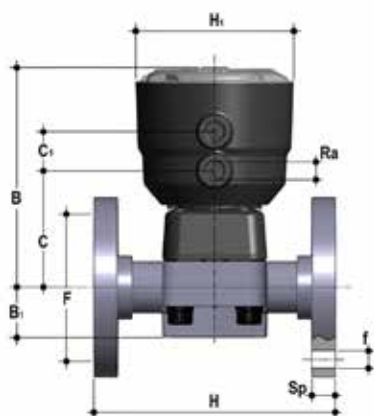
## DKB/CP DN 15÷65 PP-H



### DKBOM/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled PN10/16. Face to face according to EN 558-1. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	f	H	H <sub>1</sub>	R <sub>3</sub>	U	Sp	g	EPDM Code
20	15	6	134	25	66	24	65	14	130	97	1/4"	4	13.5	767	DKBOMNC020E
25	20	6	137	30	69	24	75	14	150	97	1/4"	4	13.5	815	DKBOMNC025E
32	25	6	145	33	78	24	85	14	160	97	1/4"	4	13.5	1059	DKBOMNC032E
40	32	6	149	30	82	24	100	18	180	97	1/4"	4	14	1144	DKBOMNC040E
50	40	6	193	35	112	24	110	18	200	126	1/4"	4	16	2743	DKBOMNC050E
63	50	6	231	46	142	24	125	18	230	157	1/4"	4	16	5795	DKBOMNC063E
75	65	6	231	46	142	24	145	18	290	157	1/4"	4	21	6339	DKBOMNC075E

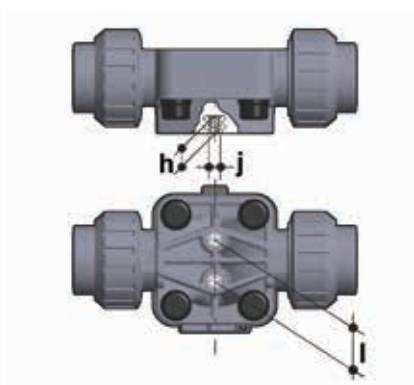


### DKBOAM/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	f	H	H <sub>1</sub>	R <sub>3</sub>	U	Sp	g	EPDM Code
1/2"	15	6	134	25	66	24	60.30	14	108	97	1/4"	4	13.5	767	DKBOAMNC012E
3/4"	20	6	137	30	69	24	69.90	15.7	120	97	1/4"	4	13.5	815	DKBOAMNC034E
1"	25	6	145	33	78	24	79.40	15.7	131	97	1/4"	4	13.5	1059	DKBOAMNC100E
1" 1/4"	32	6	149	30	82	24	88.90	15.7	162	97	1/4"	4	14	1144	DKBOAMNC114E
1" 1/2"	40	6	193	35	112	24	98.40	15.7	180	126	1/4"	4	16	2743	DKBOAMNC112E
2"	50	6	231	46	142	24	120.70	19	210	157	1/4"	4	16	5795	DKBOAMNC200E
2" 1/2"	65	6	231	46	142	24	139.70	19	250	157	1/4"	4	21	6339	DKBOAMNC212E

# FASTENING AND SUPPORTING



All valves, whether manual or actuated, must be adequately supported in many applications.

The DKB valve series is therefore provided with an integrated bracket that permits direct anchoring on the valve body without the need of other components.

For wall or panel installation, dedicated PMDK mounting plates which are available as accessories can be used. These plates should be fastened to the valve before wall installation.

PMDK plates also allow DKB valve alignment with FIP ZIKM pipe clips.

d	DN	h	l	J
20	15	10	25	M6
25	20	10	25	M6
32	25	10	25	M6
40	32	10	25	M6
50	40	13	44.5	M8
63	50	13	44.5	M8
75	65	13	44.5	M8

# COMPONENTS

## EXPLODED VIEW DN 15÷65



DN	15	20	25	32	40	50	65
A	40	40	46	46	65	78	78
B	44	44	54	54	70	82	82

**4** Actuator (PP-GR - 1)\*

**6** Compressor (PA-GR IXEF® - 1)

**7** Seal diaphragm (EPDM - 1)\*

**8** Valve body (PVC-U, PVCC,PP-H - 1)\*

**9** Socket seal O-Ring (EPDM - 2)\*

**10** End connector (PVC-U, PVCC,PP-H - 2)\*

**11** Union nut (PVC-U, PVCC,PP-H - 2)\*

**12** Washer (Acciaio INOX - 4)

**13** Bolt (Acciaio INOX - 4)

**14** Protection plug (PE - 4)

**15** Distance plate (PP-GR - 1)\*\*

**16** Screw (STAINLESS steel - 2)\*\*

\* Spare parts

\*\* Accessories

The material the component is made of and the quantity supplied are shown in brackets

## DISASSEMBLY

- 1) Isolate the valve from the line (release the pressure and empty the pipeline).
- 2) Open the valve with compressed air to drain any residual liquid from the valve.
- 3) Disconnect the valve from the pneumatic and electrical connections.
- 4) Unscrew the union nuts (11) and extract the valve.
- 5) Remove the protection plugs (14) and remove the bolts (13) with the relative washers (12).
- 6) Separate the valve body (8) from the actuator (4).
- 7) Unscrew the diaphragm (7) and remove the compressor (6).

## ASSEMBLY

- 1) Insert the compressor (6) on the actuator stem (4), aligning it correctly in its housing (fig. 3).
- 2) Screw the diaphragm (7) onto the stem, aligning it correctly with its housing on the actuator.
- 3) Mount the actuator (4) on the valve body (8) and screw in the bolts (13) with the relative washers (12).
- 4) Tighten the bolts (13) evenly (diagonally) to the tightening torque suggested on the relative instruction sheet.
- 5) Replace the protection plugs (14).
- 6) Position the valve between the end connectors (10) and tighten the union nuts (11), making sure that the socket seal O-rings (9) do not exit their seats.
- 7) Reconnect the valve to the pneumatic and electrical connections.



**Note:** All operations on equipment under pressure or containing compressed springs must be carried out under safe conditions for the operator.

Fig. 3

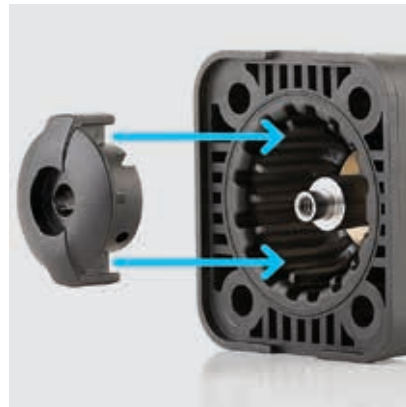


Fig. 4



## INSTALLATION

Before proceeding with installation, please follow these instructions carefully: (instructions refer to versions with union ends). The valve can be installed in any position and in any direction.

- 1) Check that the pipes to be connected to the valve are aligned in order to avoid mechanical stress on the threaded joints.
- 2) Unscrew the union nuts (11) and insert them on the pipe segments.
- 3) Solvent weld or screw the end connectors (10) onto the pipe ends.
- 4) Position the valve body between the end connectors making sure the socket seal O-Rings (9) do not exit the seats.
- 5) Completely tighten the union nuts (11).
- 6) If necessary, support the pipework with FIP pipe clips or by means of the carrier built into the valve itself (see paragraph "Fastening and supporting").
- 7) Connect the compressed air as indicated in paragraph "Compressed air connections". For valves with electric accessories, refer to the specific technical manual supplied with the accessory.

When installing in confined spaces, the connections can be oriented in line with the piping. (Fig. 4).

## WARNINGS

**Note:** before putting the valve into service, check that the bolts on the valve body (8) are tightened correctly at the suggested torque.







# VM/CP DN 80÷100

PVC-U/PVC-C/PP-H/PVDF

PNEUMATICALLY ACTUATED DIAPHRAGM VALVE



# VM/CP DN 80÷100

The VM is particularly suitable for shutting off and regulating abrasive or dirty fluids.

## PNEUMATICALLY ACTUATED DIAPHRAGM VALVE

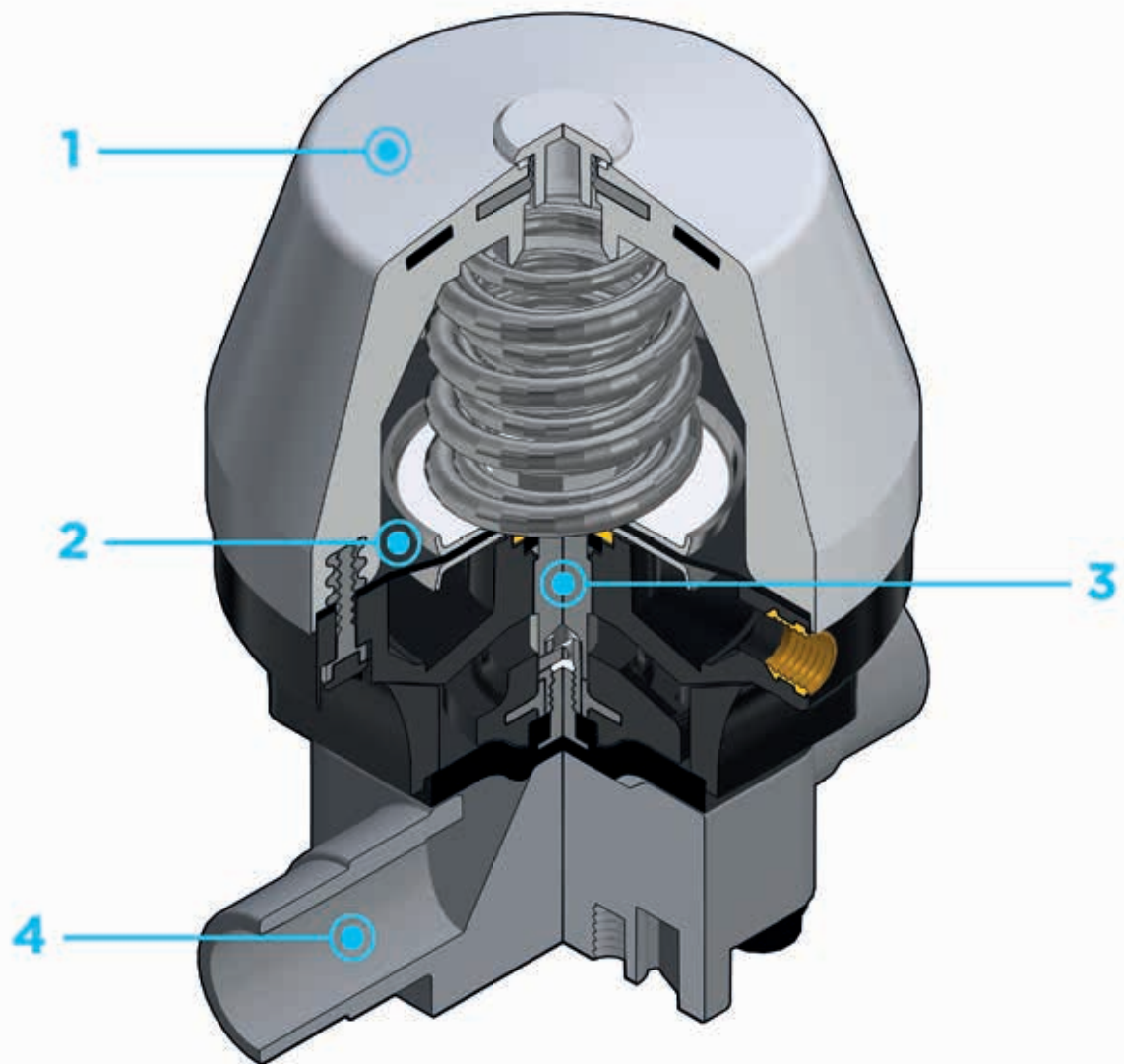
- Connection system using solvent welded and flanged joints
- **Optimised fluid dynamic design:** maximum output flow rate thanks to the optimised efficiency of the fluid dynamics that characterise the new internal geometry of the body
- Robust and reliable **PP-GR diaphragm actuator** suited to be used in severe environmental and chemically aggressive conditions
- Bonnet fastening screws in STAINLESS steel protected against the external environment by PE plugs
- **New flanged bodies:** the new bodies, characterised by a monolithic flanged structure, are available in PVC-U, PVC-C, PP-H and PVDF. This design, free of joints between the body and flanges, greatly reduces mechanical stress and increases system performance.



Technical specifications - VM	
<b>Construction</b>	Single wear diaphragm valve
<b>Size range</b>	DN 80 ÷ 100
<b>Nominal pressure</b>	<b>EPDM/FKM:</b> PN6 with water at 20 °C <b>PTFE:</b> PN10 with water at 20 °C
<b>Temperature range</b>	<b>PVC-U:</b> 0 °C ÷ 60 °C <b>PVC-C:</b> 0 °C ÷ 100 °C <b>PP-H:</b> 0 °C ÷ 100 °C <b>PVDF:</b> -20 °C ÷ 120 °C
<b>PVC-U coupling standards</b>	<b>Solvent welding:</b> EN ISO 1452, EN ISO 15493, BS 4346-1, DIN 8063, NF T54-028, ASTM D 2467, JIS K 6743. Can be coupled to pipes according to EN ISO 1452, EN ISO 15493. <b>Flanging system:</b> ISO 7005-1, EN ISO 1452, EN ISO 15493, EN 558-1, DIN 2501, ANSI B.16.5 cl. 150.
<b>PVC-C coupling standards</b>	<b>Solvent welding:</b> EN ISO 15493, ASTM F 439. Can be coupled to pipes according to EN ISO 15493. <b>Flanging system:</b> ISO 7005-1, EN ISO 15493, EN 558-1, DIN 2501, ANSI B.16.5 cl. 150.
<b>PP-H coupling standards</b>	<b>Welding:</b> EN ISO 15494. Can be coupled to pipes according to EN ISO 15494. <b>Flanging system:</b> ISO 7005-1, EN 1092-1, EN ISO 15494, EN 558-1, DIN 2501, ANSI B.16.5 cl. 150.
<b>PVDF coupling standards</b>	<b>Welding:</b> EN ISO 10931. Can be coupled to pipes according to EN ISO 10931. <b>Flanging system:</b> ISO 7005-1, EN 10931, EN 558-1, DIN 2501, ANSI B.16.5 cl. 150.
<b>Reference standards</b>	<b>PVC-U construction criteria:</b> EN ISO 16138, EN ISO 1452, EN ISO 15493 <b>PVC-C construction criteria:</b> EN ISO 16138, EN ISO 15493 <b>PP-H construction criteria:</b> EN ISO 16138, EN ISO 15494 <b>PVDF construction criteria:</b> EN ISO 16138, EN ISO 10931 <b>Test methods and requirements:</b> ISO 9393 <b>PVC-U/PVC-C installation criteria:</b> DVS 2204, DVS 2221, UNI 11242 <b>PP-H installation criteria:</b> DVS 2202-1, DVS 2207-11, DVS 2208-1, UNI 11318 <b>PVDF installation criteria:</b> DVS 2201-1, DVS 2207-15, DVS 2208-1
<b>Valve material</b>	PVC-U / PVC-C / PP-H / PVDF
<b>Seal material</b>	EPDM, FKM, PTFE (on request NBR)
<b>Control options</b>	Pneumatic actuator

The PP-GR diaphragm actuator is characterised by significant construction strength and makes VM the ideal choice for heavy-duty and chemically aggressive applications.

Technical specifications - Pneumatic actuator	
<b>Construction</b>	Single-acting (NC-NO) and double-acting (DA) pneumatic diaphragm actuator
<b>Actuator material</b>	<b>Body and bonnet:</b> PP-GR
<b>Control air pressure</b>	<b>Minimum:</b> according to working pressure and actuator function (see graphs) <b>Maximum:</b> NC: 6 bar - NO: 5 bar - DA: 5 bar
<b>Power supply</b>	Dry or lubricated filtered compressed air. If using other fluids, contact the FIP service centre
<b>Control fluid temperature</b>	Max 40 °C
<b>Temperature range</b>	-20 °C ÷ 50 °C
<b>Accessories</b>	<ul style="list-style-type: none"> <li>• Optical position indicator</li> <li>• Stroke limiter</li> <li>• Stroke limiter with position indicator</li> <li>• Stroke limiter with position indicator and emergency manual override</li> <li>• Limit switch boxes</li> <li>• Electro-pneumatic positioner</li> <li>• Pilot solenoid valves 3-5/2 ways for direct or manifold mounting</li> </ul>



**1** **PP-GR diaphragm actuator** marked by **high construction strength**. The upper part is reinforced in steel in the Normally closed configuration. **The absence of metal parts exposed to the external environment** prevents any risk of corrosion.

**2** The special **control diaphragm** reinforced with textile fibres allows

for up to 10 million operating cycles without showing any signs of wear.

**3** High resistance **stainless steel stem** with floating pin connection between the actuator stem and diaphragm to prevent concentrated loads, improve the seal and extend its lifetime.

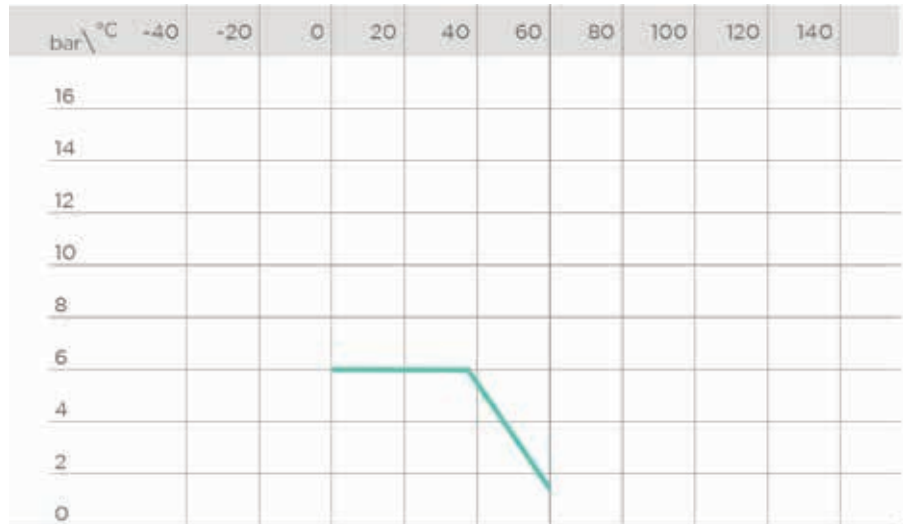
**4** **New valve body internal design**. Substantially higher flow coefficient and lower pressure drops. Improved adjustment curve for efficient and precise flow regulation.

# TECHNICAL DATA

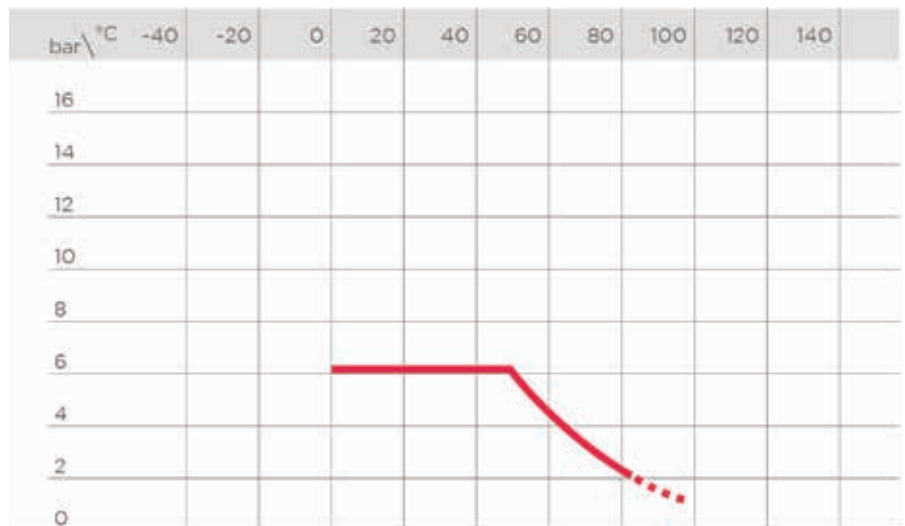
## PRESSURE VARIATION ACCORDING TO TEMPERATURE

### PVC-U BODY

For water and non-hazardous fluids with regard to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required (25 years with safety factor).



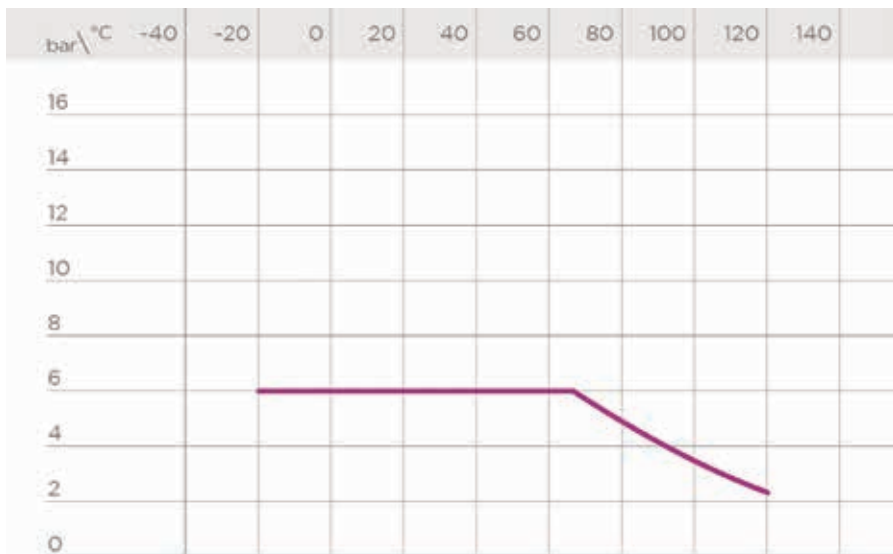
### PVC-C BODY



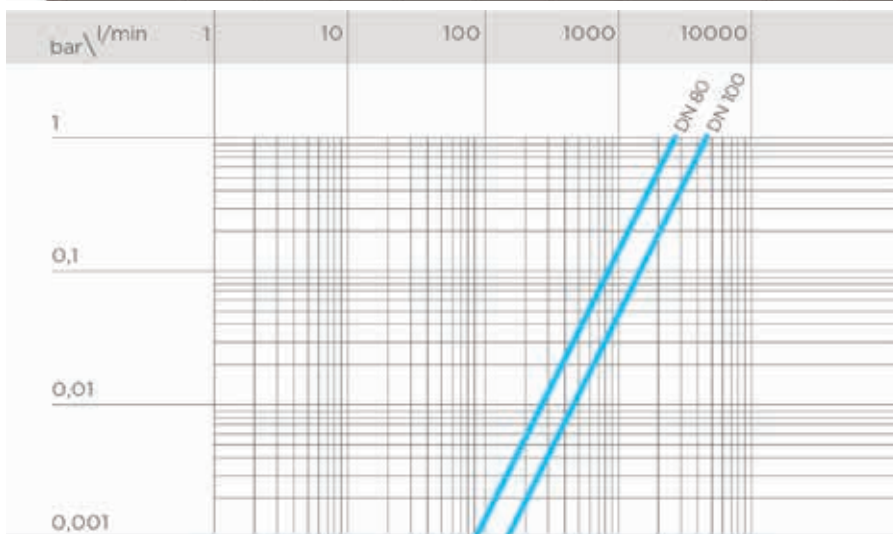
### PP-H BODY



## PVDF BODY



## PRESSURE DROP GRAPH



## K<sub>v</sub>100 FLOW COEFFICIENT

The K<sub>v</sub>100 flow coefficient is the Q flow of litres per minute of water at a temperature of 20°C that will generate Δp= 1 bar pressure drop at a certain valve position.

The K<sub>v</sub>100 values shown in the table are calculated for the monolythic version valve completely open.

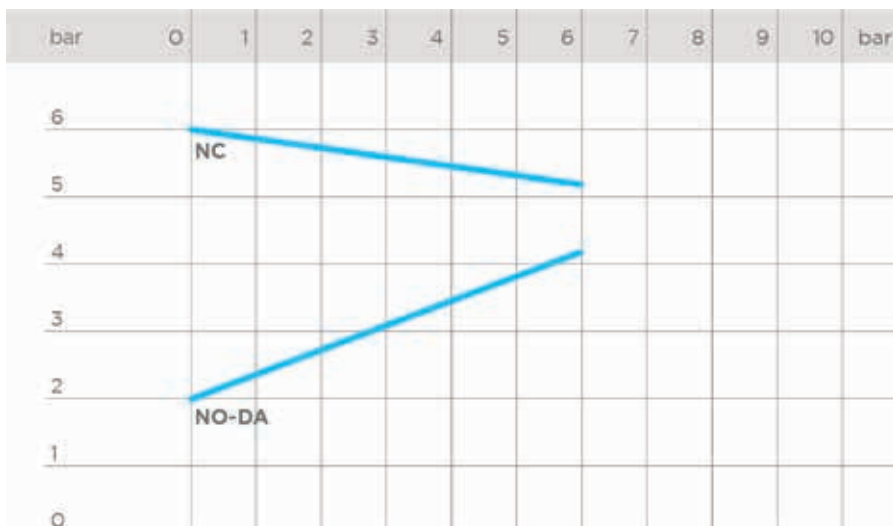
DN	80	100
Kv100 l/min	2910	4620

## CONTROL PRESSURE ACCORDING TO VM/CP NO WORKING PRESSURE

Minimum control pressure according to working pressure with EPDM/FKM diaphragm

X axis: Working pressure

Y axis: Control pressure



# PNEUMATIC ACTUATOR DATA

## FUNCTIONAL CHARACTERISTICS

Function type	double-acting	Normally closed (NC)	Normally Open (NO)
Valve opening	air	air	spring
Valve closing	air	spring	air

## ACTUATOR CAPACITY

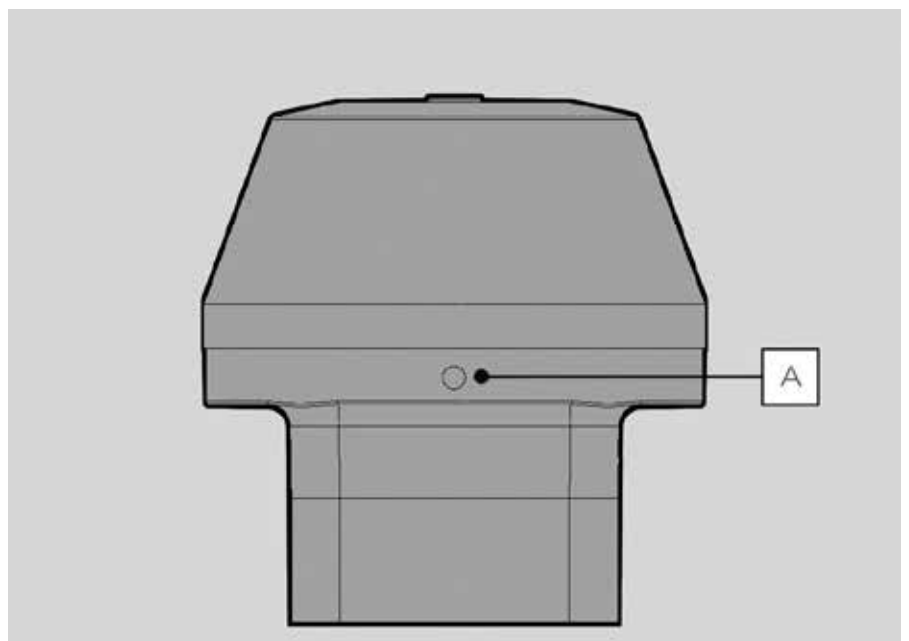
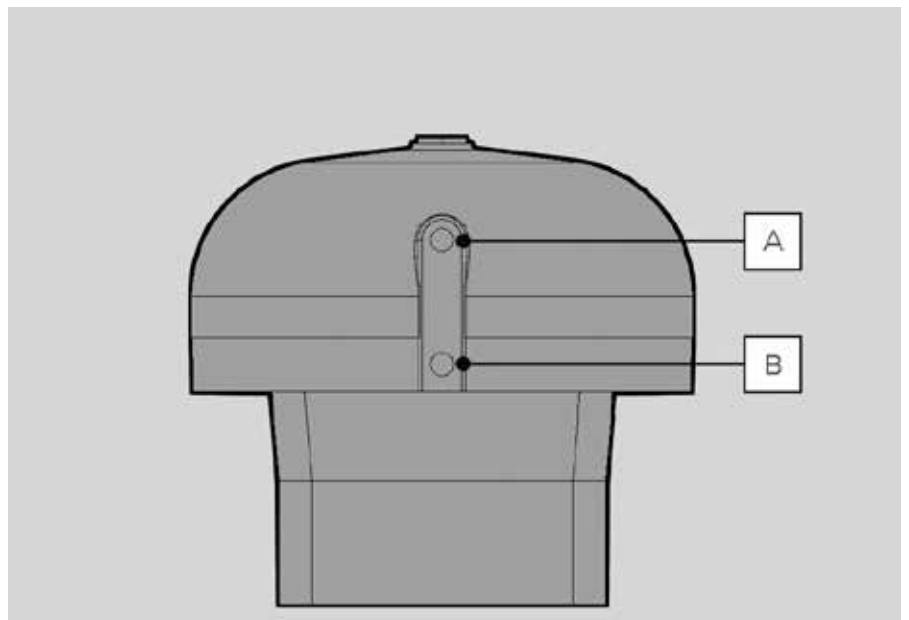
L: litre, equivalent to  $10^{-3} \text{ m}^3$

Air consumption in normal litres (or normal cubic metres) per operating cycle can be calculated by correcting according to operating conditions such as control air pressure.

DN	80	100
NC	2.1 L	2.5 L
NO	2.2 L	2.5 L
DA	4.3 L	5 L

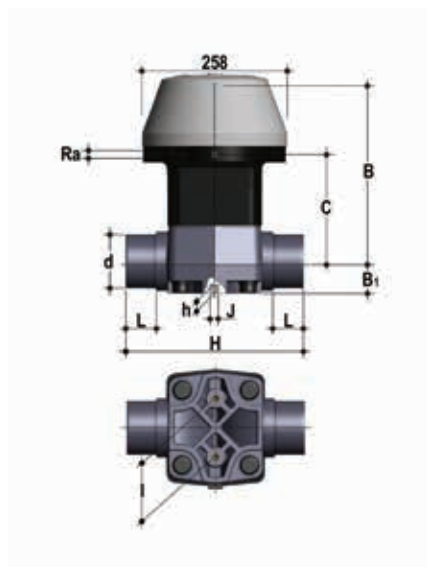
## COMPRESSED AIR CONNECTIONS

Function type	Double-acting (DA)	Normally closed (NC)	Normally Open (NO)
Valve opening	Inlet A	Inlet A	-
Valve closing	Inlet B	-	Inlet B



# DIMENSIONS

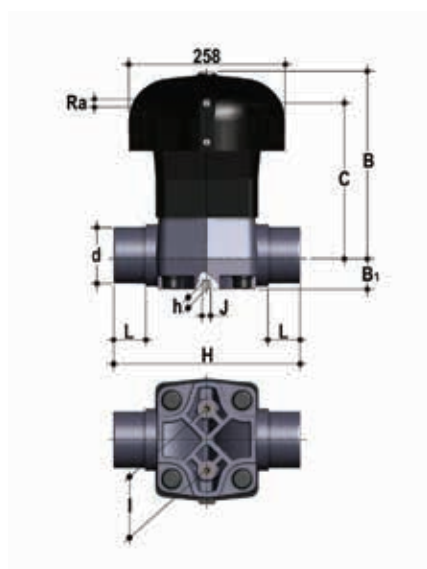
## VM/CP DN 80÷100 PVC-U



### VMDV/CP NC

Diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	H	h	l	J	L	R <sub>0</sub>	g	EPDM Code	FKM Code	PTFE Code
90	80	6	317	64	179	300	23	100	M12	51	1/4"	15500	VMDVNC090E	VMDVNC090F	VMDVNC090P
110	100	6	347	72	260	340	23	120	M12	61	1/4"	25500	VMDVNC110E	VMDVNC110F	VMDVNC110P



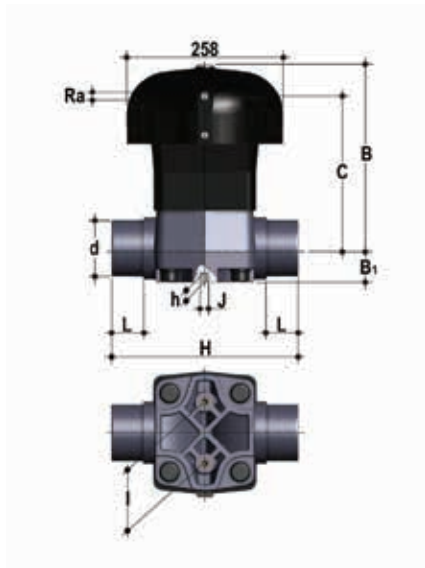
### VMDV/CP NO

Diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	H	h	l	J	L	R <sub>0</sub>	g	EPDM Code	FKM Code	PTFE Code
90	80	6	297	64	244	300	23	100	M12	51	1/4"	13000	VMDVNO090E	VMDVNO090F	VMDVNO090P
110	100	6	322	72	260	340	23	120	M12	61	1/4"	22000	VMDVNO110E	VMDVNO110F	VMDVNO110P

# DIMENSIONS

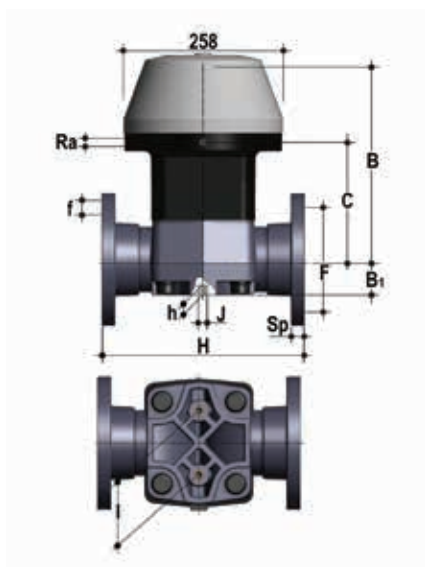
## VM/CP DN 80÷100 PVC-U



### VMDV/CP DA

Diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	H	h	l	J	L	R <sub>o</sub>	g	EPDM Code	FKM Code	PTFE Code
90	80	6	297	64	244	300	23	100	M12	51	1/4"	13000	VMDVDA090E	VMDVDA090F	VMDVDA090P
110	100	6	322	72	260	340	23	120	M12	61	1/4"	22000	VMDVDA110E	VMDVDA110F	VMDVDA110P



### VMOV/CP NC

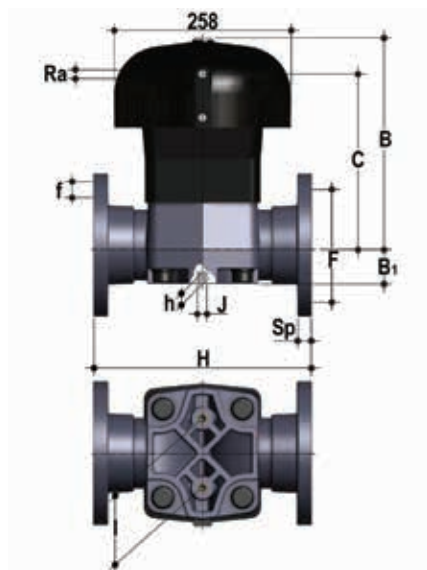
Diaphragm valve with monolithic flanged body, drilled PN10/16. Pneumatically actuated face to face according to EN 558-1, Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>o</sub>	l	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
90	80	6	317	64	179	310	23	1/4"	100	M12	160	18	8	21.5	17000	VMOVNC090E	VMOVNC090F	VMOVNC090P
110	100	6	347	72	260	350	23	1/4"	120	M12	180	18	8	22.5	27900	VMOVNC110E	VMOVNC110F	VMOVNC110P



# DIMENSIONS

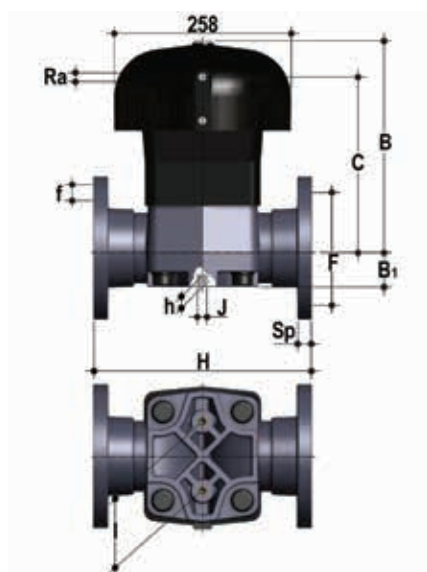
## VM/CP DN 80÷100 PVC-U



### VMOV/CP NO

Diaphragm valve with monolithic flanged body, drilled PN10/16. Pneumatically actuated face to face according to EN 558-1, Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>o</sub>	I	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
90	80	6	297	64	244	310	23	1/4"	100	M12	160	18	8	21.5	14500	VMOVNO090E	VMOVNO090F	VMOVNO090P
110	100	6	322	72	260	350	23	1/4"	120	M12	180	18	8	22.5	27900	VMOVNO110E	VMOVNO110F	VMOVNO110P



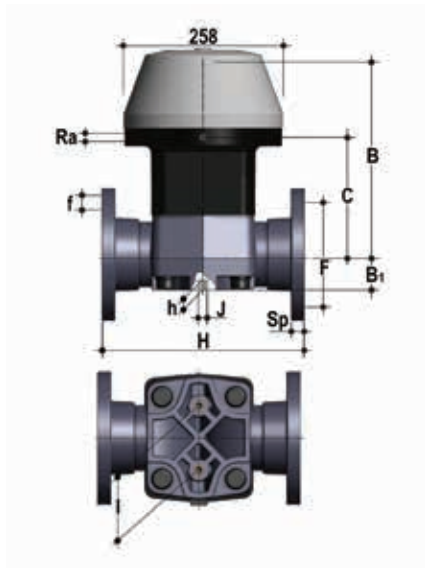
### VMOV/CP DA

Diaphragm valve with monolithic flanged body, drilled PN10/16. Pneumatically actuated face to face according to EN 558-1, Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>o</sub>	I	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
90	80	6	297	64	244	310	23	1/4"	100	M12	160	18	8	21.5	14500	VMOVDA090E	VMOVDA090F	VMOVDA090P
110	100	6	322	72	260	350	23	1/4"	120	M12	180	18	8	22.5	27900	VMOVDA110E	VMOVDA110F	VMOVDA110P

# DIMENSIONS

## VM/CP DN 80÷100 PVC-U

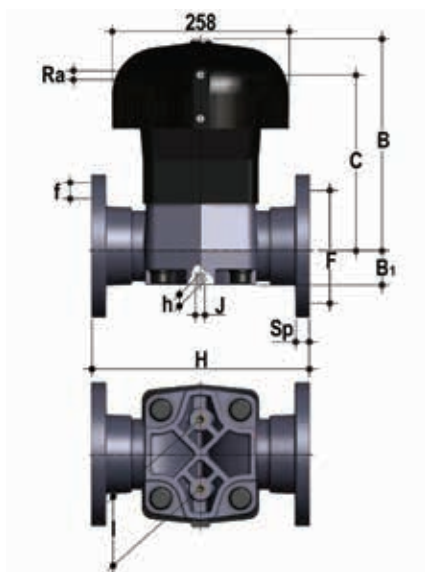


### VMOAV/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF, Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>o</sub>	I	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
3"	80	6	317	64	179	263	23	1/4"	100	M12	152.4	19.1	4	21.5	17000	VMOAVNC300E	VMOAVNC300F	VMOAVNC300P
4"	100	6	347	72	260	328	23	1/4"	120	M12	190.5	19.1	8	22.5	27900	VMOAVNC400E	VMOAVNC400F	VMOAVNC400P

For installations prior to October 2017, contact FIP technical support



### VMOAV/CP NO

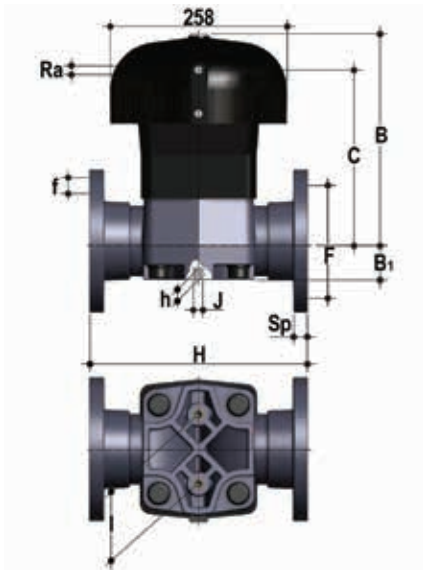
Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF, Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>o</sub>	I	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
3"	80	6	297	64	244	263	23	1/4"	100	M12	152.4	19.1	4	21.5	14500	VMOAVNO300E	VMOAVNO300F	VMOAVNO300P
4"	100	6	322	72	260	328	23	1/4"	120	M12	190.5	19.1	8	22.5	24400	VMOAVNO400E	VMOAVNO400F	VMOAVNO400P

For installations prior to October 2017, contact FIP technical support

# DIMENSIONS

## VM/CP DN 80÷100 PVC-U



### VMOAV/CP DA

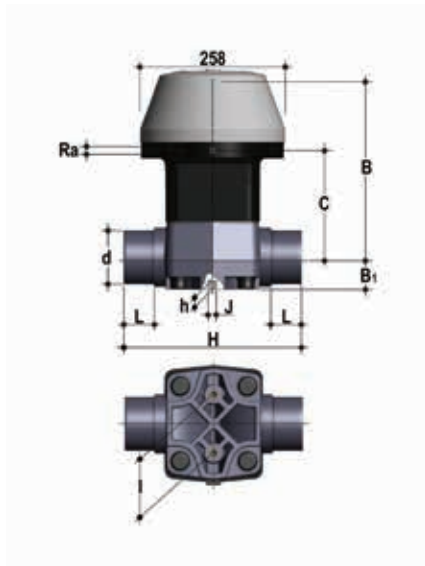
Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF, Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>0</sub>	I	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
3"	80	6	297	64	244	263	23	1/4"	100	M12	152.4	191	4	21.5	14500	VMOAVDA300E	VMOAVDA300F	VMOAVDA300P
4"	100	6	322	72	260	328	23	1/4"	120	M12	190.5	191	8	22.5	24400	VMOAVDA400E	VMOAVDA400F	VMOAVDA400P

For installations prior to October 2017, contact FIP technical support

# DIMENSIONS

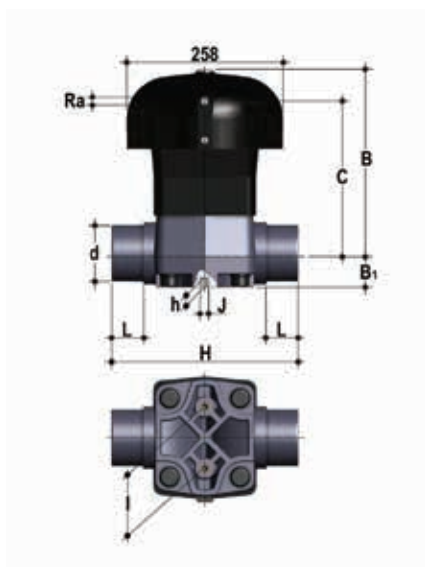
## VM/CP DN 80÷100 PVC-C



### VMDC/CP NC

Diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	H	h	l	J	L	R <sub>o</sub>	g	EPDM Code	FKM Code	PTFE Code
90	80	6	317	64	179	300	23	100	M12	51	1/4"	15790	VMDCNC090E	VMDCNC090F	VMDCNC090P
110	100	6	347	72	260	340	23	120	M12	61	1/4"	25900	VMDCNC110E	VMDCNC110F	VMDCNC110P



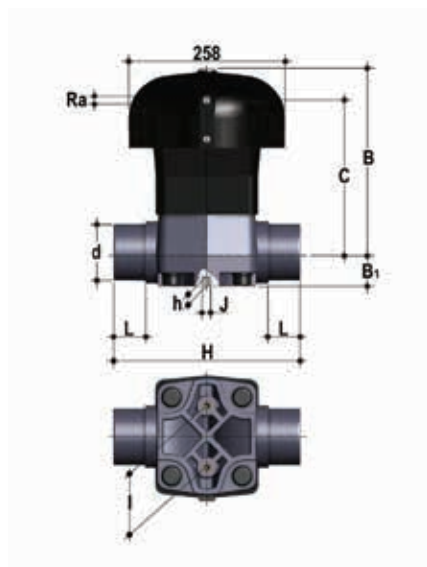
### VMDC/CP NO

Diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	H	h	l	J	L	R <sub>o</sub>	g	EPDM Code	FKM Code	PTFE Code
90	80	6	297	64	244	300	23	100	M12	51	1/4"	13290	VMDCNO090E	VMDCNO090F	VMDCNO090P
110	100	6	322	72	260	340	23	120	M12	61	1/4"	22400	VMDCNO110E	VMDCNO110F	VMDCNO110P

# DIMENSIONS

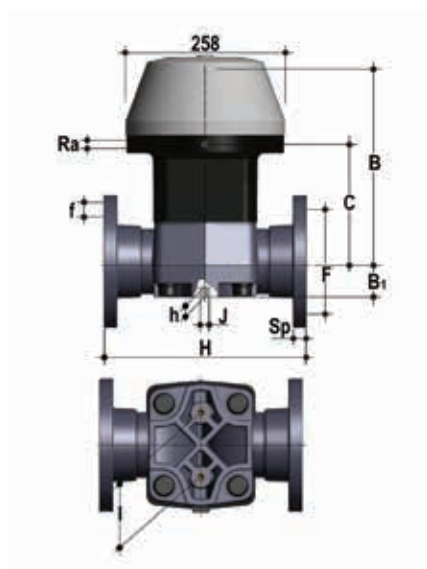
## VM/CP DN 80÷100 PVC-C



### VMDC/CP DA

Diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	H	h	l	J	L	R <sub>o</sub>	g	EPDM Code	FKM Code	PTFE Code
90	80	6	297	64	244	300	23	100	M12	51	1/4"	13290	VMDCDA090E	VMDCDA090F	VMDCDA090P
110	100	6	322	72	260	340	23	120	M12	61	1/4"	22400	VMDCDA110E	VMDCDA110F	VMDCDA110P



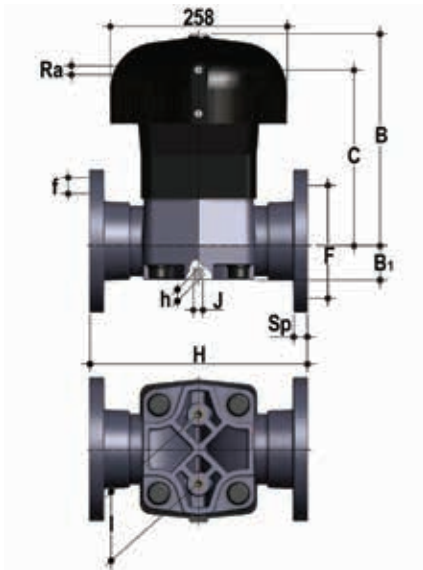
### VMOC/CP NC

Diaphragm valve with monolithic flanged body, drilled PN10/16. Pneumatically actuated face to face according to EN 558-1, Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>o</sub>	l	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
90	80	6	317	64	179	310	23	1/4"	100	M12	160	18	8	21.5	17640	VMOCNC090E	VMOCNC090F	VMOCNC090P
110	100	6	347	72	260	350	23	1/4"	120	M12	180	18	8	22.5	28620	VMOCNC110E	VMOCNC110F	VMOCNC110P

# DIMENSIONS

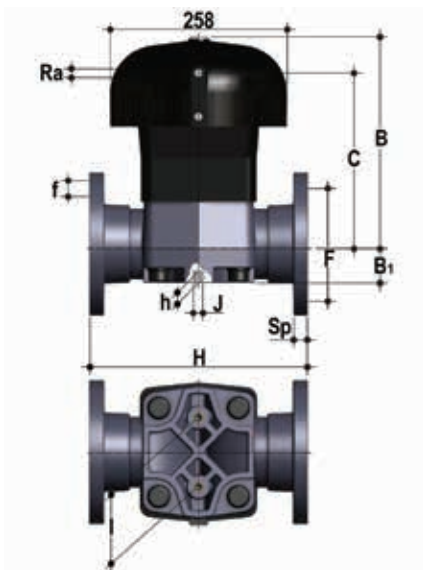
## VM/CP DN 80÷100 PVC-C



### VMOC/CP NO

Diaphragm valve with monolithic flanged body, drilled PN10/16. Pneumatically actuated face to face according to EN 558-1, Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>o</sub>	I	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
90	80	6	297	64	244	310	23	1/4"	100	M12	160	18	8	21.5	15140	VMOCNO090E	VMOCNO090F	VMOCNO090P
110	100	6	322	72	260	350	23	1/4"	120	M12	180	18	8	22.5	25120	VMOCNO110E	VMOCNO110F	VMOCNO110P



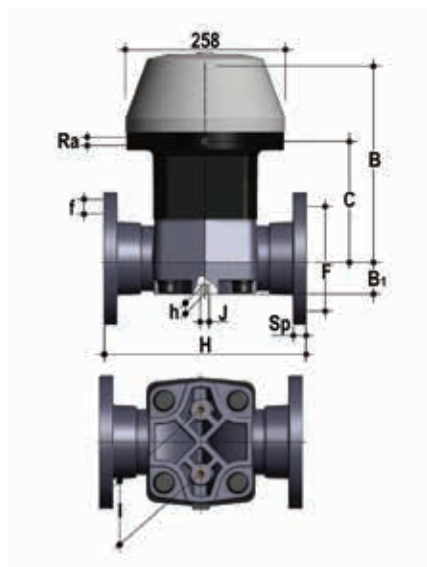
### VMOC/CP DA

Diaphragm valve with monolithic flanged body, drilled PN10/16. Pneumatically actuated face to face according to EN 558-1, Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>o</sub>	I	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
90	80	6	297	64	244	310	23	1/4"	100	M12	160	18	8	21.5	15140	VMOCDA090E	VMOCDA090F	VMOCDA090P
110	100	6	322	72	260	350	23	1/4"	120	M12	180	18	8	22.5	25120	VMOCDA110E	VMOCDA110F	VMOCDA110P

# DIMENSIONS

## VM/CP DN 80÷100 PVC-C

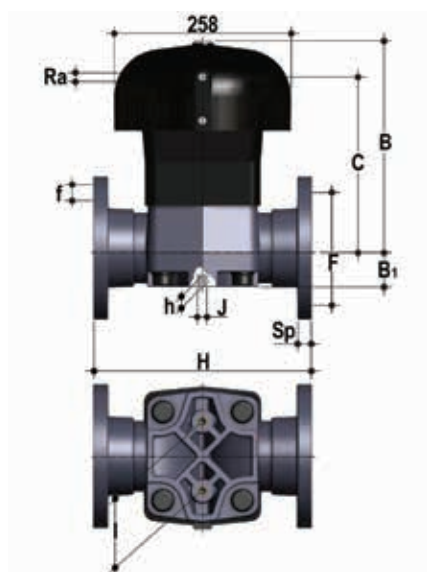


### VMOAC/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF, Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>o</sub>	I	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
3"	80	6	317	64	179	263	23	1/4"	100	M12	152.4	19.1	4	21.5	17640	VMOACNC300E	VMOACNC300F	VMOACNC300P
4"	100	6	347	72	260	328	23	1/4"	120	M12	190.5	19.1	8	22.5	28620	VMOACNC400E	VMOACNC400F	VMOACNC400P

For installations prior to October 2017, contact FIP technical support



### VMOAC/CP NO

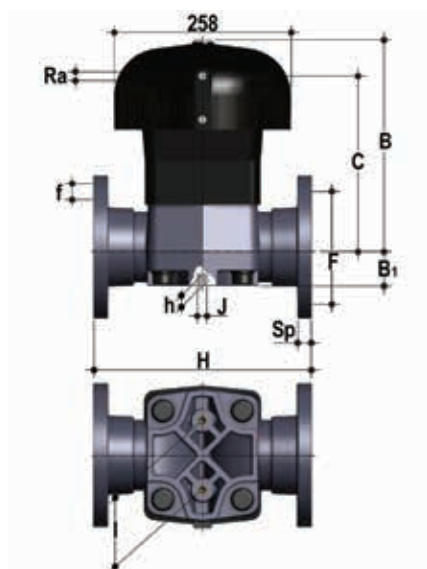
Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF, Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>o</sub>	I	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
3"	80	6	297	64	244	263	23	1/4"	100	M12	152.4	19.1	4	21.5	15140	VMOACNO300E	VMOACNO300F	VMOACNO300P
4"	100	6	322	72	260	328	23	1/4"	120	M12	190.5	19.1	8	22.5	25120	VMOACNO400E	VMOACNO400F	VMOACNO400P

For installations prior to October 2017, contact FIP technical support

# DIMENSIONS

## VM/CP DN 80÷100 PVC-C



### VMOAC/CP DA

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled ANSI B16.5 cl. 150 #FF, Double-Acting function

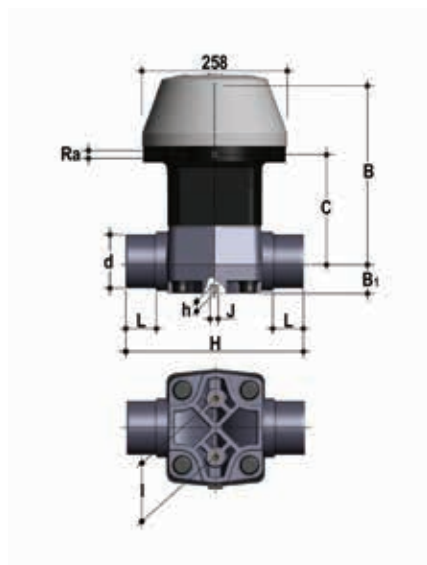
d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>0</sub>	I	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
3"	80	6	297	64	244	263	23	1/4"	100	M12	152.4	191	4	21.5	15140	VMOACDA300E	VMOACDA300F	VMOACDA300P
4"	100	6	322	72	260	328	23	1/4"	120	M12	190.5	191	8	22.5	25120	VMOACDA400E	VMOACDA400F	VMOACDA400P

For installations prior to October 2017, contact FIP technical support



# DIMENSIONS

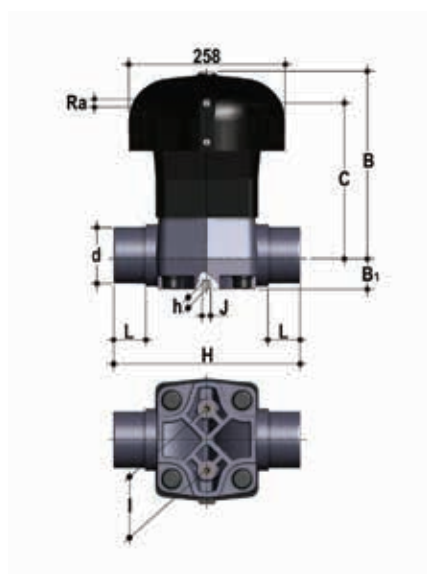
## VM/CP DN 80÷100 PP-H



### VMDM/CP NC

Diaphragm valve with male ends for pneumatically actuated socket welding, Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	H	h	l	J	L	R <sub>o</sub>	g	EPDM Code	FKM Code	PTFE Code
90	80	6	317	64	179	300	23	100	M12	51	1/4"	14540	VMDMNC090E	VMDMNC090F	VMDMNC090P
110	100	6	347	72	260	340	23	120	M12	61	1/4"	24160	VMDMNC110E	VMDMNC110F	VMDMNC110P



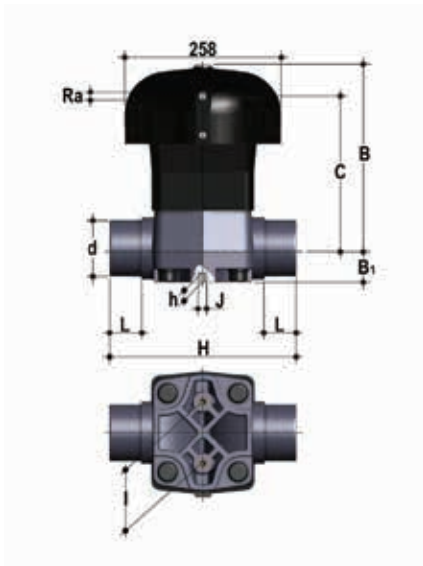
### VMDM/CP NO

Diaphragm valve with male ends for pneumatically actuated socket welding, Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	H	h	l	J	L	R <sub>o</sub>	g	EPDM Code	FKM Code	PTFE Code
90	80	6	297	64	244	300	23	100	M12	51	1/4"	12040	VMDMNO090E	VMDMNO090F	VMDMNO090P
110	100	6	322	72	260	340	23	120	M12	61	1/4"	20660	VMDMNO110E	VMDMNO110F	VMDMNO110P

# DIMENSIONS

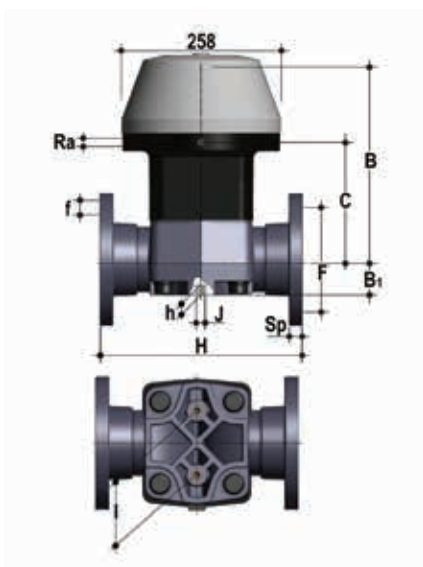
## VM/CP DN 80÷100 PP-H



### VMDM/CP DA

Diaphragm valve with male ends for pneumatically actuated socket welding, Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	H	h	l	J	L	R <sub>o</sub>	g	EPDM Code	FKM Code	PTFE Code
90	80	6	297	64	244	300	23	100	M12	51	1/4"	12040	VMDMDA090E	VMDMDA090F	VMDMDA090P
110	100	6	322	72	260	340	23	120	M12	61	1/4"	20660	VMDMDA110E	VMDMDA110F	VMDMDA110P



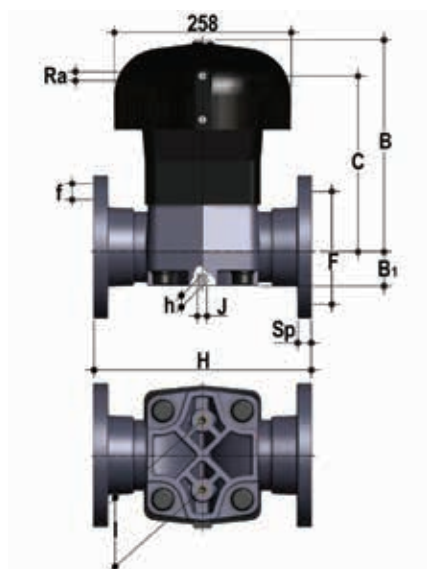
### VMOM/CP NC

Pneumatically actuated diaphragm valve with monolithic flanged body, drilled EN/ISO/DIN PN10/16. Face to face according to EN 558-1. Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>o</sub>	l	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
90	80	6	317	64	179	310	23	1/4"	100	M12	160	18	8	21.5	16000	VMOMNC090E	VMOMNC090F	VMOMNC090P
110	100	6	347	72	260	350	23	1/4"	120	M12	180	18	8	22.5	25980	VMOMNC110E	VMOMNC110F	VMOMNC110P

# DIMENSIONS

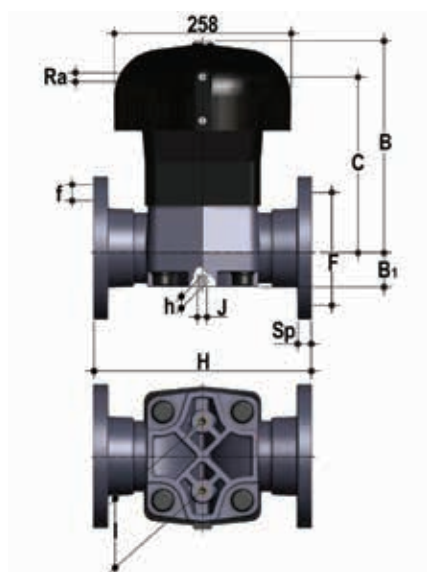
## VM/CP DN 80÷100 PP-H



### VMOM/CP NO

Pneumatically actuated diaphragm valve. Normally Open function with monolithic flanged body drilled EN/ISO/DIN PN10/16. Face to face according to EN 558-1.

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>o</sub>	I	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
90	80	6	297	64	244	310	23	1/4"	100	M12	160	18	8	21.5	13500	VMOMNO090E	VMOMNO090F	VMOMNO090P
110	100	6	322	72	260	350	23	1/4"	120	M12	180	18	8	22.5	22480	VMOMNO110E	VMOMNO110F	VMOMNO110P



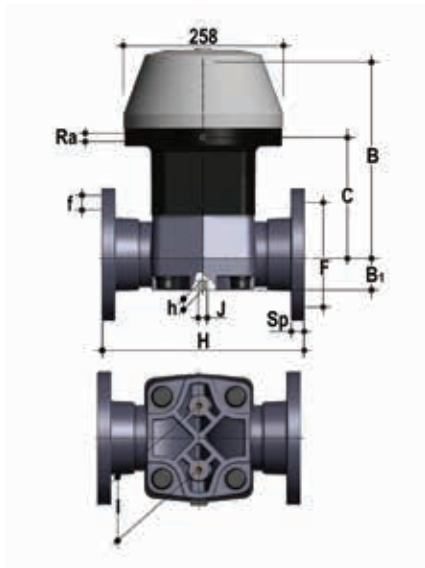
### VMOM/CP DA

Pneumatically actuated diaphragm valve. Double-Acting function with monolithic flanged body drilled EN/ISO/DIN PN10/16. Face to face according to EN 558-1.

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>o</sub>	I	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
90	80	6	297	64	244	310	23	1/4"	100	M12	160	18	8	21.5	13500	VMOMDA090E	VMOMDA090F	VMOMDA090P
110	100	6	322	72	260	350	23	1/4"	120	M12	180	18	8	22.5	22480	VMOMDA110E	VMOMDA110F	VMOMDA110P

# DIMENSIONS

## VM/CP DN 80÷100 PP-H

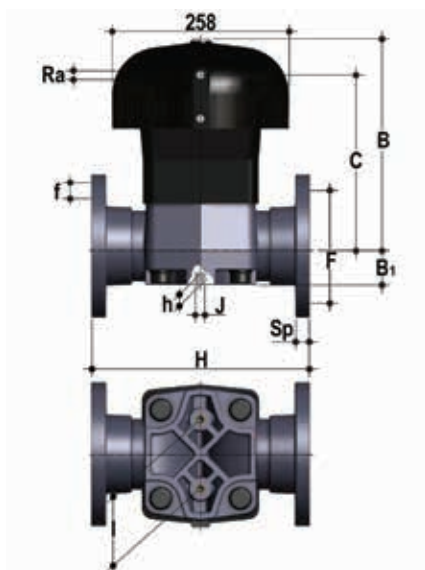


### VMOAM/CP NC

Pneumatically actuated diaphragm valve. Normally Closed function with monolithic flanged body ANSI B16.5 cl.150 #FF\*

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>0</sub>	I	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
3"	80	6	317	64	179	263	23	1/4"	100	M12	152.4	19.1	4	21.5	16000	VMOAMNC300E	VMOAMNC300F	VMOAMNC300P
4"	100	6	347	72	260	328	23	1/4"	120	M12	190.5	19.1	8	22.5	25980	VMOAMNC400E	VMOAMNC400F	VMOAMNC400P

For installations prior to October 2017, contact FIP technical support



### VMOAM/CP NO

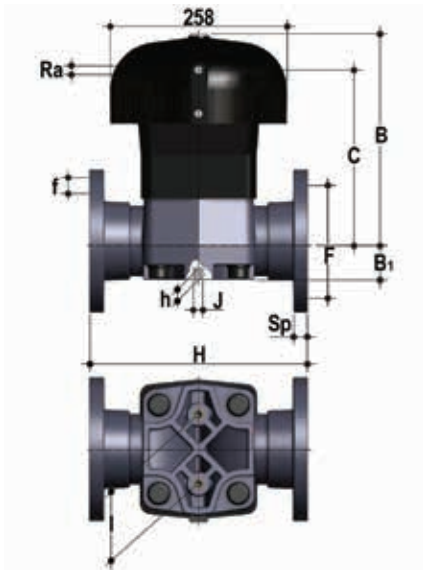
Pneumatically actuated diaphragm valve. Normally Open function with monolithic flanged body ANSI B16.5 cl.150 #FF\*

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>0</sub>	I	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
3"	80	6	297	64	244	263	23	1/4"	100	M12	152.4	19.1	4	21.5	13500	VMOAMNO300E	VMOAMNO300F	VMOAMNO300P
4"	100	6	322	72	260	328	23	1/4"	120	M12	190.5	19.1	8	22.5	22480	VMOAMNO400E	VMOAMNO400F	VMOAMNO400P

For installations prior to October 2017, contact FIP technical support

# DIMENSIONS

## VM/CP DN 80÷100 PP-H



### VMOAM/CP DA

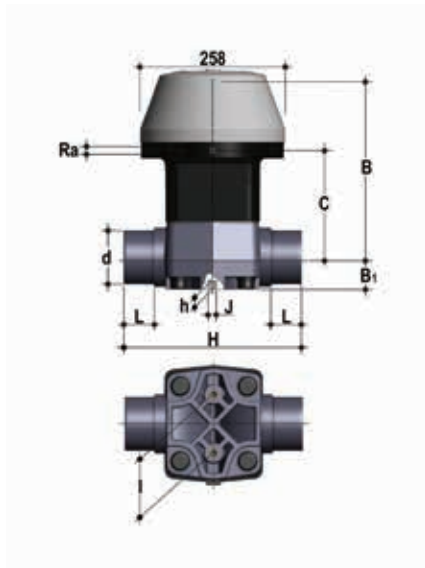
Pneumatically actuated diaphragm valve. Double-Acting function with monolithic flanged body  
ANSI B16.5 cl.150 #FF\*

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>0</sub>	I	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
3"	80	6	297	64	244	263	23	1/4"	100	M12	152.4	19.1	4	21.5	13500	VMOAMDA300E	VMOAMDA300F	VMOAMDA300P
4"	100	6	322	72	260	328	23	1/4"	120	M12	190.5	19.1	8	22.5	22480	VMOAMDA400E	VMOAMDA400F	VMOAMDA400P

For installations prior to October 2017, contact FIP technical support

# DIMENSIONS

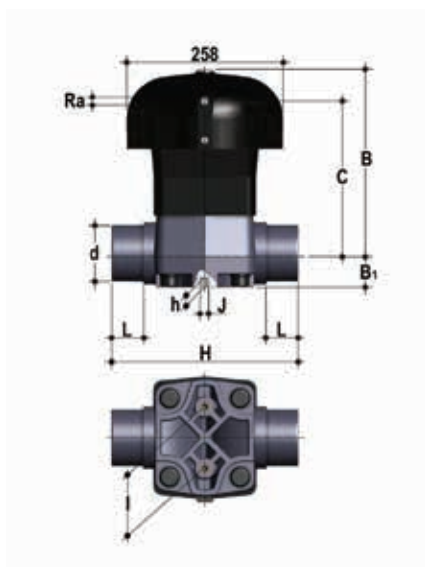
## VM/CP DN 80÷100 PVDF



### VMDF/CP NC

Diaphragm valve with male ends for pneumatically actuated socket welding, Normally Closed function

d	DN	PN	B	B <sub>1</sub>	C	H	h	I	J	L	R <sub>s</sub>	g	EPDM Code	FKM Code	PTFE Code
90	80	6	317	64	179	300	23	100	M12	51	1/4"	16340	VMDFNC090E	VMDFNC090F	VMDFNC090P
110	100	6	347	72	260	340	23	120	M12	61	1/4"	26670	VMDFNC110E	VMDFNC110F	VMDFNC110P



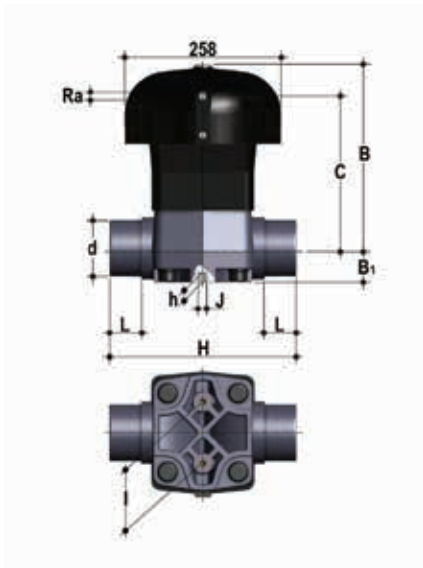
### VMDF/CP NO

Diaphragm valve with male ends for pneumatically actuated socket welding, Normally Open function

d	DN	PN	B	B <sub>1</sub>	C	H	h	I	J	L	R <sub>s</sub>	g	EPDM Code	FKM Code	PTFE Code
90	80	6	297	64	244	300	23	100	M12	51	1/4"	13840	VMDFNO090E	VMDFNO090F	VMDFNO090P
110	100	6	322	72	260	340	23	120	M12	61	1/4"	23170	VMDFNO110E	VMDFNO110F	VMDFNO110P

# DIMENSIONS

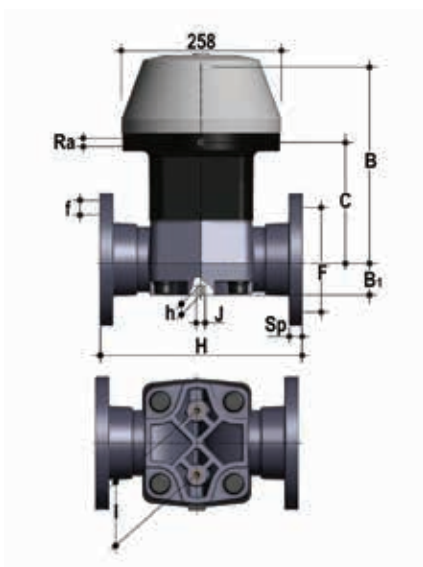
## VM/CP DN 80÷100 PVDF



### VMDF/CP DA

Diaphragm valve with male ends for pneumatically actuated socket welding, Double-Acting function

d	DN	PN	B	B <sub>1</sub>	C	H	h	I	J	L	R <sub>o</sub>	g	EPDM Code	FKM Code	PTFE Code
90	80	6	297	64	244	300	23	100	M12	51	1/4"	13840	VMDFDA090E	VMDFDA090F	VMDFDA090P
110	100	6	322	72	260	340	23	120	M12	61	1/4"	23170	VMDFDA110E	VMDFDA110F	VMDFDA110P



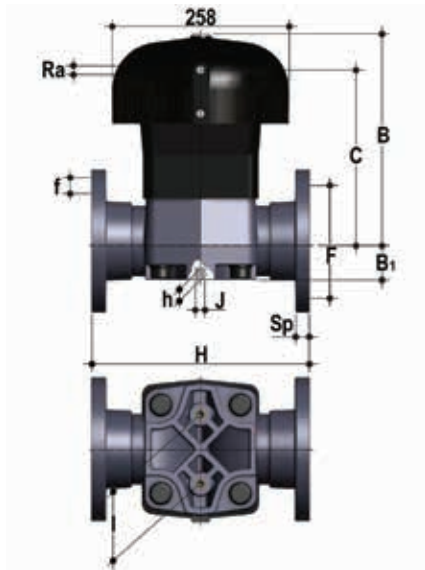
### VMOF/CP NC

Pneumatically actuated diaphragm valve. Normally Closed function with monolithic flanged body drilled EN/ISO/DIN PN10/16. Face to face according to EN 558-1.

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>o</sub>	I	J	F	Φf	U	Sp	g	EPDM Code	FKM Code	PTFE Code
90	80	6	317	64	179	310	23	1/4"	100	M12	160	18	8	21.5	18520	VMOFNC090E	VMOFNC090F	VMOFNC090P
110	100	6	347	72	260	350	23	1/4"	120	M12	180	18	8	22.5	29790	VMOFNC110E	VMOFNC110F	VMOFNC110P

# DIMENSIONS

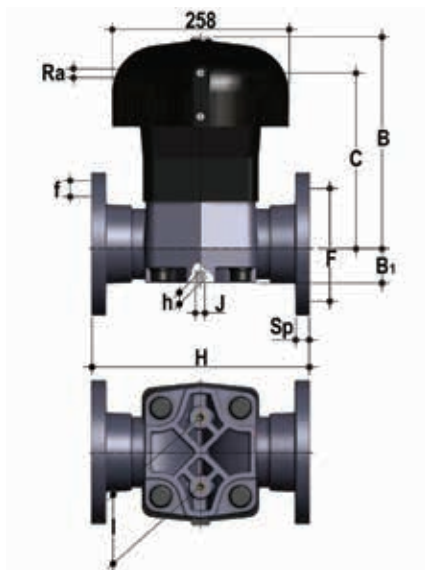
## VM/CP DN 80÷100 PVDF



### VMOF/CP NO

Pneumatically actuated diaphragm valve. Normally Open function with monolithic flanged body drilled EN/ISO/DIN PN10/16. Face to face according to EN 558-1.

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>a</sub>	I	J	F	Φ <sub>f</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
90	80	6	297	64	244	310	23	1/4"	100	M12	160	18	8	21.5	16020	VMOFNO090E	VMOFNO090F	VMOFNO090P
110	100	6	322	72	260	350	23	1/4"	120	M12	180	18	8	22.5	26290	VMOFNO110E	VMOFNO110F	VMOFNO110P



### VMOF/CP DA

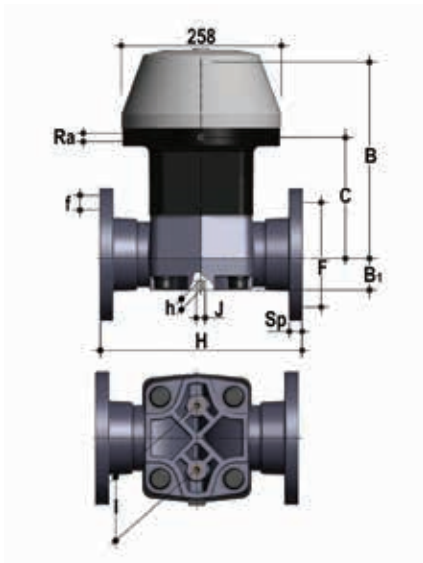
Pneumatically actuated diaphragm valve. Double-Acting function with monolithic flanged body drilled EN/ISO/DIN PN10/16. Face to face according to EN 558-1.

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>a</sub>	I	J	F	Φ <sub>f</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
90	80	6	297	64	244	310	23	1/4"	100	M12	160	18	8	21.5	16020	VMOFDA090E	VMOFDA090F	VMOFDA090P
110	100	6	322	72	260	350	23	1/4"	120	M12	180	18	8	22.5	26290	VMOFDA110E	VMOFDA110F	VMOFDA110P



# DIMENSIONS

## VM/CP DN 80÷100 PVDF

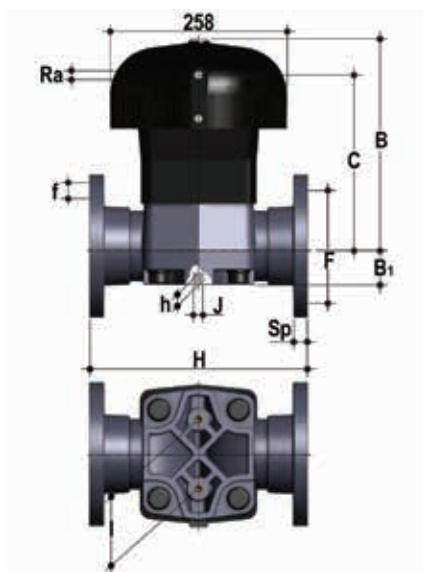


### VMOAF/CP NC

Pneumatically actuated diaphragm valve. Normally Closed function with monolithic flanged body ANSI B16.5 cl.150 #FF\*

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>o</sub>	I	J	F	Φ <sub>f</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
3"	80	6	317	64	179	263	23	1/4"	100	M12	152.4	19.1	4	21.5	18520	VMOAFNC300E	VMOAFNC300F	VMOAFNC300P
4"	100	6	347	72	260	328	23	1/4"	120	M12	190.5	19.1	8	22.5	29790	VMOAFNC400E	VMOAFNC400F	VMOAFNC400P

For installations prior to October 2017, contact FIP technical support



### VMOAF/CP NO

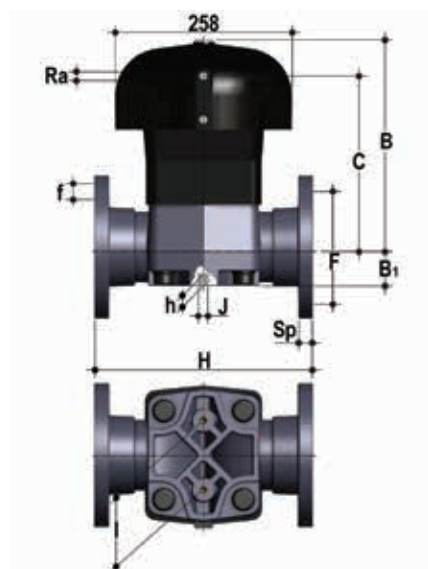
Pneumatically actuated diaphragm valve. Normally Open function with monolithic flanged body ANSI B16.5 cl.150 #FF\*

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>o</sub>	I	J	F	Φ <sub>f</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
3"	80	6	297	64	244	263	23	1/4"	100	M12	152.4	19.1	4	21.5	16020	VMOAFNO300E	VMOAFNO300F	VMOAFNO300P
4"	100	6	322	72	260	328	23	1/4"	120	M12	190.5	19.1	8	22.5	26290	VMOAFNO400E	VMOAFNO400F	VMOAFNO400P

For installations prior to October 2017, contact FIP technical support

# DIMENSIONS

## VM/CP DN 80÷100 PVDF



### VMOAF/CP DA

Pneumatically actuated diaphragm valve. Double-Acting function with monolithic flanged body  
ANSI B16.5 cl.150 #FF\*

d	DN	PN	B	B <sub>1</sub>	C	H	h	R <sub>2</sub>	I	J	F	Φ <sub>f</sub>	U	Sp	g	EPDM Code	FKM Code	PTFE Code
3"	80	6	297	64	244	263	23	1/4"	100	M12	152.4	19.1	4	21.5	16020	VMOAFDA300E	VMOAFDA300F	VMOAFDA300P
4"	100	6	322	72	260	328	23	1/4"	120	M12	190.5	19.1	8	22.5	26290	VMOAFDA400E	VMOAFDA400F	VMOAFDA400P

For installations prior to October 2017, contact FIP technical support

# COMPONENTS

## EXPLODED VIEW



DN	80	100
A	114	193
B	127	-

**1** Actuator (PP-GR - 1)\*

**6** Shutter (PA-GR - 1)

**8** Seal diaphragm (EPDM, FKM, NBR, PTFE - 1)\*

**9** Body (PVC-U/PVC-C/PP-H/PVDF - 1)\*

**10** Washer (Zinc plated steel\*\* - 4)\*

**11** Hex screw (Zinc plated steel\*\* - 4)\*

**12** Protection plug (PE - 4)\*

\* Spare parts

\*\*Stainless steel for PVDF valves

The material the component is made of and the quantity supplied are shown in brackets

## DISASSEMBLY

- 1) Isolate the valve from the line (release the pressure and empty the pipeline).
- 2) Open the valve with compressed air (NC-DA) to drain any residual liquid from the valve.
- 3) Disconnect the valve from the pneumatic and electrical connections.
- 4) Remove the protection plugs (12) and remove the bolts (11) with the relative washers (10). This operation will be made easier if the actuator is pressurised (NC).
- 5) Separate the valve body (9) from the actuator (1).
- 6) Unscrew the diaphragm (8) and remove the compressor (6). This operation will be made easier if the actuator is not pressurised (NC).

## ASSEMBLY

- 1) Insert the compressor (6) on the actuator stem (1), aligning it correctly in its housing.
- 2) Screw the diaphragm (8) onto the stem, aligning it correctly with its housing on the actuator.
- 3) Mount the actuator (1) on the valve body (9) and screw in the bolts (11) with the relative washers (10). This operation will be made easier if the actuator is pressurised (NC).
- 4) Tighten the bolts (11) evenly (diagonally) to the tightening torque suggested on the relative instruction sheet.
- 5) Replace the protection plugs (12).
- 6) Reconnect the valve to the pneumatic and electrical connections.



**Note:** All operations on equipment under pressure or containing compressed springs must be carried out under safe conditions for the operator.

# INSTALLATION

The valve can be installed in any position and in any direction.

Before proceeding with installation, please follow these instructions carefully:

- 1) Check that the pipes to be connected to the valve are aligned in order to avoid mechanical stress.
- 2) Glue and weld.
- 3) if necessary, support pipes with FIP pipe clips.
- 4) Connect the compressed air as indicated in "Compressed air connections" For valves with electric accessories, refer to the specific technical manual supplied with the accessory.

## WARNINGS

**Note:** before putting the valve into service, check that the bolts on the valve body (11) are tightened correctly at the torque indicated in the instruction sheet.







# DKD/CP DN 15÷65

PVC-U

DIRECT ACTION PNEUMATICALLY ACTUATED  
DIAPHRAGM VALVE



# DKD/CP DN 15÷65

The DKD/CP diaphragm valve is particularly suited to shut off extremely dirty and/or high viscosity fluids. The new internal geometry of the body optimises fluid dynamic efficiency by increasing the flow rate. The DKP/CP is extremely compact and very light.

## DIRECT ACTION PNEUMATICALLY ACTUATED DIAPHRAGM VALVE

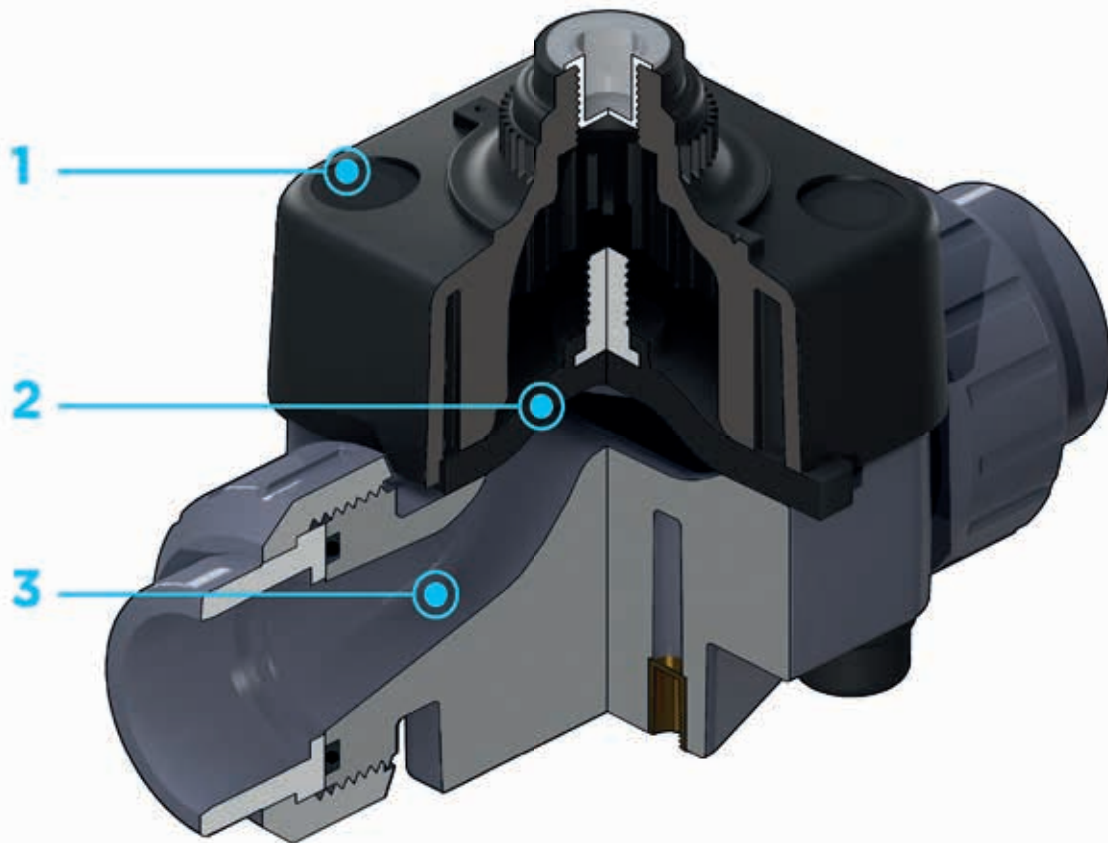
- Connection system using solvent welded and threaded joints
- **Optimised fluid dynamic design:** maximum output flow rate thanks to the optimised efficiency of the fluid dynamics that characterise the new internal geometry of the body
- In the Standard version, equipped with textile fibre reinforced diaphragm
- Bonnet fastening screws in STAINLESS steel protected against the external environment by PE plugs
- Easy to clean valve interior
- Low risk of the accumulation of deposits, contamination or damage to the diaphragm due to crystallisation
- Easy to replace diaphragm seal.

Technical specifications - DKD	
<b>Construction</b>	Direct action pneumatically actuated diaphragm valve with body at maximized flow rate
<b>Size range</b>	DN 15 ÷ 65
<b>Nominal pressure</b>	PN 8 with water at 20° C
<b>Temperature range</b>	0 °C ÷ 60 °C
<b>PVC-U coupling standards</b>	<b>Solvent welding:</b> EN ISO 1452, EN ISO 15493, BS 4346-1, DIN 8063. Can be coupled to pipes according to EN ISO 1452, DIN 8062 <b>Thread:</b> ISO 228-1, DIN 2999
<b>Reference standards</b>	<b>Construction criteria:</b> EN ISO 16138, EN ISO 1452, EN ISO 15493 <b>Test methods and requirements:</b> ISO 9393 <b>PVC-U installation criteria:</b> DVS 2204, DVS 2221, UNI 11242
<b>Valve material</b>	PVC-U
<b>Seal material</b>	EPDM On request NBR
<b>Control options</b>	Pneumatic actuator

The valve comprises three elements: body, diaphragm and sealing bonnet. Due to the action of the compressed air in the bonnet, the diaphragm is pressed against the body saddle interrupting the flow. This simplified operating principle and the lower number of components guarantees high reliability and durability.

Technical specifications - actuator	
<b>Construction</b>	Direct action pneumatic piston actuator (NO)
<b>Actuator material</b>	<b>Body:</b> PP-GR
<b>Control air pressure</b>	<b>Maximum:</b> 10 bar
<b>Differential air control pressure compared to conveyed fluid to obtain valve opening</b>	0.5 - 1.5 bar
<b>Power supply</b>	Neutral and clean fluid, free from mineral based lubricants, which are aggressive on EPDM rubber. If using other fluids, contact the FIP service centre
<b>Control fluid temperature</b>	Max 50 °C
<b>Temperature range</b>	-20 °C ÷ 50 °C
<b>Accessories</b>	• Pilot solenoid valves 3/2 ways for manifold mounting





**1** **PP-GR sealing bonnet** marked by **high construction strength**. The absence of metal parts exposed to the external environment prevents any risk of corrosion.

**2** The special **sealing diaphragm** reinforced with textile fibres allows longer operation to be reached without showing any signs of wear.

**3** **New valve body internal design**. **Substantially higher flow coefficient** and lower pressure drops. The degree of efficiency reached has also enabled the **size and weight of the valve to be reduced**.

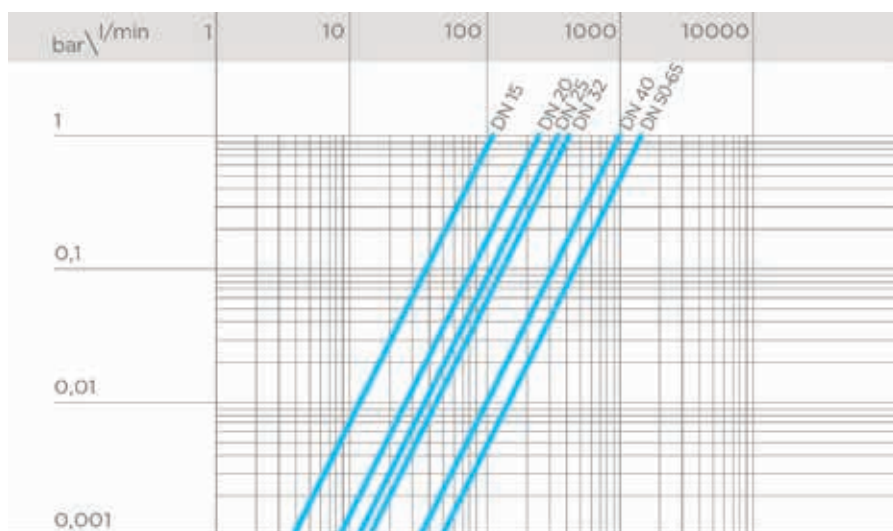
# TECHNICAL DATA

## PRESSURE VARIATION ACCORDING TO TEMPERATURE

For water and non-hazardous fluids with regard to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required (25 years with safety factor).



## PRESSURE DROP GRAPH



## K<sub>v</sub>100 FLOW COEFFICIENT

The K<sub>v</sub>100 flow coefficient is the Q flow of litres per minute of water at a temperature of 20°C that will generate Δp= 1 bar pressure drop at a certain valve position.

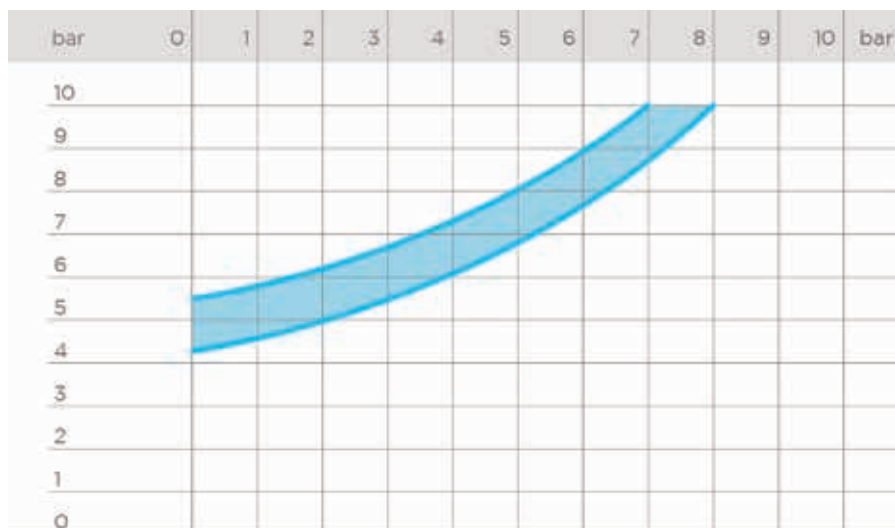
The K<sub>v</sub>100 values shown in the table are calculated with the valve completely open.

DN	15	20	25	32	40	50	65
K <sub>v</sub> 100 l/min	112	261	445	550	1087	1648	1600

## CONTROL PRESSURE ACCORDING TO WORKING PRESSURE

Minimum control pressure (Y axis) according to working pressure (X axis)

**Note:** to permit total valve opening, the in-line fluid working pressure must be at least 1.2 bar in DN50 and DN65 versions.



# PNEUMATIC ACTUATOR DATA

## FUNCTIONAL CHARACTERISTICS

Function type	Single-acting (SA)
Valve opening	Normally Open (NO)
Valve closing	pressure of fluid flow air

## ACTUATOR CAPACITY

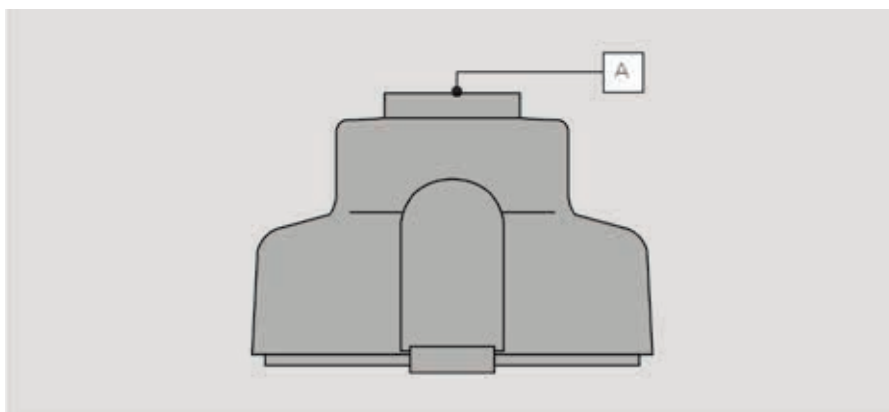
L: litre, equivalent to  $10^{-3} \text{ m}^3$

Air consumption in normal litres (or normal cubic metres) per operating cycle can be calculated by correcting according to operating conditions such as control air pressure.

DN	15	20	25	32	40	50	65
NO	0.13 L	0.13 L	0.28 L	0.28 L	0.50 L	0.50 L	0.50 L

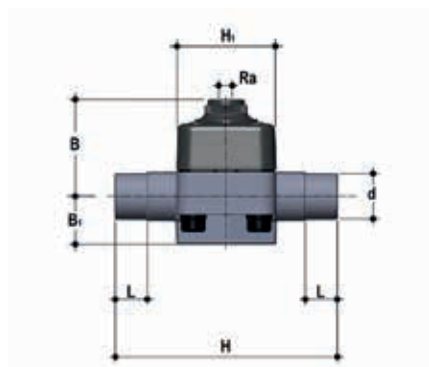
## COMPRESSED AIR CONNECTIONS

Function type	Normally Open (NO)
Valve opening	-
Valve closing	Inlet A



# DIMENSIONS

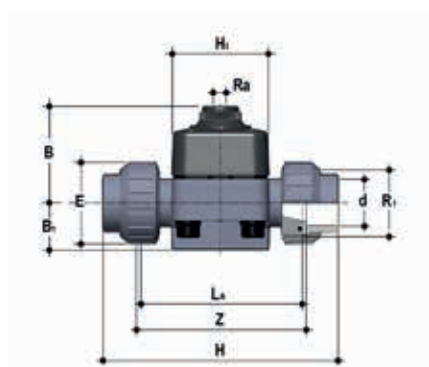
## DKD/CP DN 15÷65 PVC-U



### DKDDV/CP NO

Pneumatically actuated diaphragm valve, Normally Open, with male ends, metric series

d	DN	PN	B	B <sub>r</sub>	H	h	H <sub>1</sub>	L	R <sub>s</sub>	g	EPDM Code
20	15	8	58	25	124	12	65	16	1/4"	270	DKDDVNO020E
25	20	8	61	29.5	144	12	65	19	1/4"	292	DKDDVNO025E
32	25	8	70	33	154.5	12	70	22	1/4"	492	DKDDVNO032E
40	32	8	72	30	174.5	12	70	26	1/4"	536	DKDDVNO040E
50	40	8	87	35	195.5	16	99	31	1/4"	1100	DKDDVNO050E
63	50	8	109	46	225	16	114	38	1/4"	1924	DKDDVNO063E
75	65	8	109	46	284	16	114	44	1/4"	2045	DKDDVNO075E



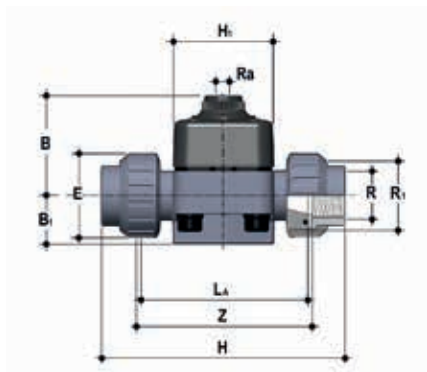
### DKDUIV/CP NO

Pneumatically actuated diaphragm valve, Normally Open, with female union ends, metric series

d	DN	PN	B	B <sub>r</sub>	E	H	h	H <sub>1</sub>	L <sub>s</sub>	R <sub>i</sub>	R <sub>s</sub>	Z	g	EPDM Code
20	15	8	58	25	41	129	12	65	90	1"	1/4"	100	310	DKDUIVNO020E
25	20	8	61	29.5	50	154	12	65	108	1 1/4"	1/4"	116	372	DKDUIVNO025E
32	25	8	70	33	58	168	12	70	116	1 1/2"	1/4"	124	600	DKDUIVNO032E
40	32	8	72	30	72	192	12	70	134	2"	1/4"	140	726	DKDUIVNO040E
50	40	8	87	35	79	222	16	99	154	2 1/4"	1/4"	160	1312	DKDUIVNO050E
63	50	8	109	46	98	266	16	114	184	2 3/4"	1/4"	190	2320	DKDUIVNO063E

# DIMENSIONS

## DKD/CP DN 15÷65 PVC-U



### DKDUFV/CP NO

Pneumatically actuated diaphragm valve, Normally Open, with BSP threaded female union ends,

R	DN	PN	B	B <sub>1</sub>	H	h	H <sub>1</sub>	L <sub>1</sub>	Z	E	R <sub>1</sub>	R <sub>2</sub>	g	EPDM Code
1/2"	15	8	58	25	131	12	65	90	97	41	1"	1/4"	310	DKDUFVNO012E
3/4"	20	8	61	29.5	151	12	65	108	118	50	1 1/4"	1/4"	372	DKDUFVNO034E
1"	25	8	70	33	165	12	70	116	127	58	1 1/2"	1/4"	600	DKDUFVNO100E
1 1/4"	32	8	72	30	188	12	70	134	145	72	2"	1/4"	726	DKDUFVNO114E
1 1/2"	40	8	87	35	208	16	99	154	165	79	2 1/4"	1/4"	1312	DKDUFVNO112E
2"	50	8	109	46	246	16	114	184	195	98	2 3/4"	1/4"	2320	DKDUFVNO200E

# FASTENING AND SUPPORTING



All valves, whether manual or actuated, must be adequately supported in many applications.

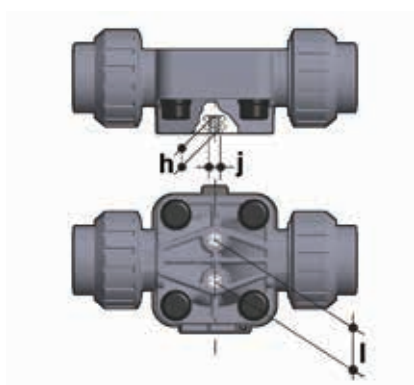
The DK valve series is therefore provided with an integrated bracket that permits direct anchoring of the valve body without the need of other components.

For wall or panel installation, dedicated PMDK mounting plates which are available as accessories can be used. These plates should be fastened to the valve before wall installation.

PMDK plates also allow DKD valve alignment with FIP ZIKM pipe clips.

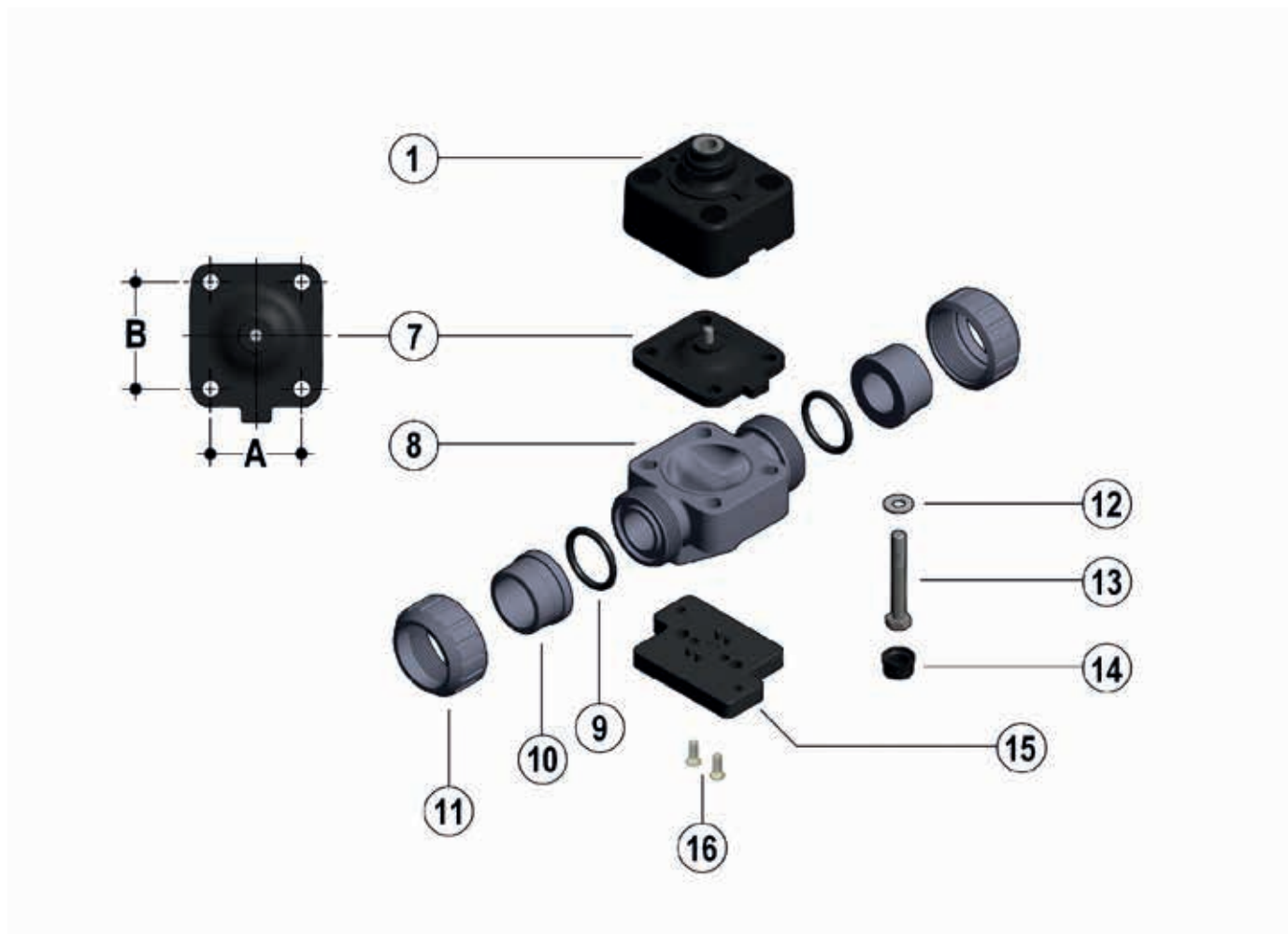
d	DN	h	l	J
20	15	10	25	M6
25	20	10	25	M6
32	25	10	25	M6
40	32	10	25	M6
50	40	13	44.5	M8
63	50	13	44.5	M8
75	65	13	44.5	M8

\* With bracketing bushes



# COMPONENTS

## EXPLODED VIEW



DN	15	20	25	32	40	50	65
A	40	40	46	46	65	78	78
B	44	44	54	54	70	82	82

1 Seal bonnet (PP-GR - 1)\*

7 Seal diaphragm (EPDM - 1)\*

8 Valve body (PVC-U - 1)\*

9 Socket seal O-Ring (EPDM - 2)\*

10 End connector (PVC-U - 2)\*

11 Union nut (PVC-U - 2)\*

12 Washer (Acciaio INOX - 4)

13 Bolt (Acciaio INOX - 4)

14 Protection plug (PE - 4)

\* Spare parts

The material the component is made of and the quantity supplied are shown in brackets



## DISASSEMBLY

- 1) Isolate the valve from the line (release the pressure and empty the pipeline).
- 2) Disconnect the valve from the pneumatic and electrical connections.
- 3) Unscrew the union nuts (11) and extract the valve.
- 4) Remove the protection plugs (14) and remove the bolts (13) with the relative washers (12).
- 5) Separate the valve body (8) from the sealing bonnet (1) and from the diaphragm (7).

## ASSEMBLY

- 1) Rest the diaphragm (7) on the valve body (8).
- 2) Assemble the sealing bonnet (1) on the diaphragm (7) and tighten the bolts (13) with the relative washers (12).
- 3) Tighten the bolts (13) evenly (diagonally) to the tightening torque suggested on the relative instruction sheet.
- 4) Replace the protection plugs (14).
- 5) Position the valve between the end connectors (10) and tighten the union nuts (11), making sure that the socket seal O-rings (9) do not exit their seats.
- 6) Reconnect the valve to the pneumatic and electrical connections.



**Note:** All operations on equipment under pressure or containing compressed springs must be carried out under safe conditions for the operator.

# INSTALLATION

Before proceeding with installation, please follow these instructions carefully: (instructions refer to versions with union ends). The valve can be installed in any position and in any direction.

- 1) Check that the pipes to be connected to the valve are aligned in order to avoid mechanical stress on the threaded joints.
- 2) Unscrew the union nuts (11) and insert them on the pipe segments.
- 3) Solvent weld or screw the end connectors (10) onto the pipe ends.
- 4) Position the valve body between the end connectors making sure the socket seal O-Rings (9) do not exit the seats.
- 5) Completely tighten the union nuts (11).
- 6) If necessary, support the pipework with FIP pipe clips or by means of the carrier built into the valve itself (see paragraph "Fastening and supporting").
- 7) Connect the compressed air as indicated in paragraph "Compressed air connections". For valves with electric accessories, refer to the specific technical manual supplied with the accessory.

## WARNINGS

**Note:** before putting the valve into service, check that the bolts on the valve body (8) are tightened correctly at the torque indicated in the instruction sheet.





# CM/CP DN 12÷15

PVC-U/PVC-C/PP-H/PVDF

PNEUMATICALLY ACTUATED COMPACT DIAPHRAGM  
VALVE



# CM/CP DN 12÷15

The CM/CP is a pneumatically actuated valve with a compact structure and high flow capacity. The CM/CP is actuated by a dry running piston that can be actuated by all fluids or gases provided they are neutral and clean. The extremely compact structure of this valve permits easy installation even in highly confined spaces.

## PNEUMATICALLY ACTUATED COMPACT DIAPHRAGM VALVE

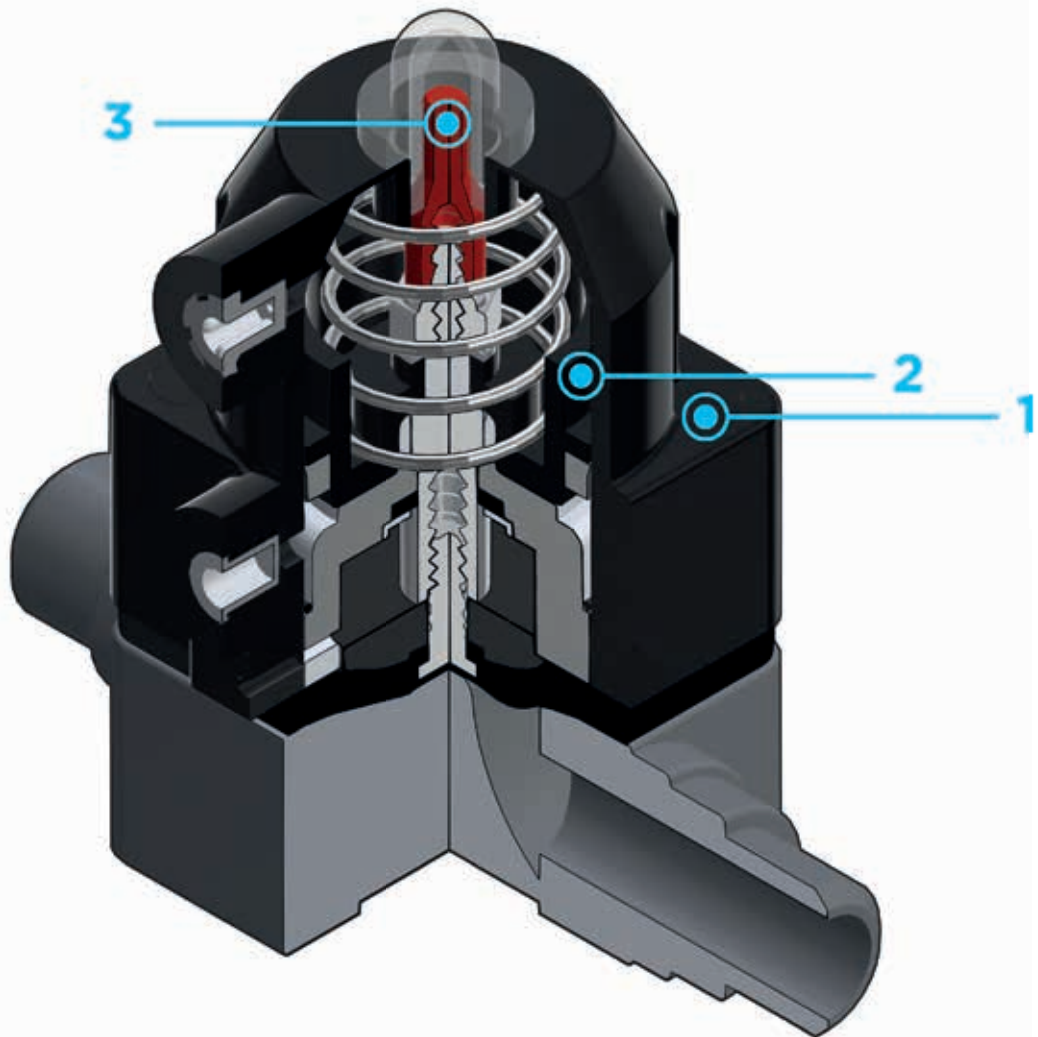
- The valve is impervious to fluids containing impurities
- It has an high flow rate
- It can be installed in any position
- It has an extremely compact structure
- It is actuated by a dry running piston and does not require maintenance
- It has no protruding screws and is fully free of impurity deposits
- Allows for an easy diaphragm seal replacement
- The Standard version valve comes with a position indicator.

### Technical specifications - CM

<b>Construction</b>	Compact single wear diaphragm valve
<b>Size range</b>	DN 12 ÷ 15
<b>Nominal pressure</b>	PN 6 with water at 20° C
<b>Temperature range</b>	<b>PVC-U:</b> 0 °C ÷ 60 °C <b>PVC-C:</b> 0 °C ÷ 100 °C <b>PP-H:</b> 0 °C ÷ 100 °C <b>PVDF:</b> -20°C - 140°C
<b>PVC-U coupling standards</b>	<b>Solvent welding:</b> EN ISO 1452, EN ISO 15493, BS 4346-1, DIN 8063, NF T54-028, ASTM D 2467, JIS K 6743. Can be coupled to pipes according to EN ISO 1452, EN ISO 15493, DIN 8062, NF T54-016, ASTM D 1785, JIS K 6741. <b>Thread:</b> ISO 228-1, DIN 2999, ASTM D 2464, JIS B 0203.
<b>PVC-C coupling standards</b>	<b>Solvent welding:</b> EN ISO 15493 Can be coupled to pipes according to EN ISO 15493
<b>PP-H coupling standards</b>	<b>Welding:</b> EN ISO 15494. Can be coupled to pipes according to EN ISO 15494 <b>Thread:</b> ISO 228-1, DIN 2999 <b>Flanging system:</b> ISO 7005-1, EN 1092-1, EN ISO 15494, EN 558-1, DIN 2501, ANSI B16.5 cl.150
<b>PVDF coupling standards</b>	<b>Welding:</b> EN ISO 10931 Can be coupled to pipes according to EN ISO 10931 <b>Thread:</b> ISO 228-1, DIN 2999
<b>Reference standards</b>	<b>PVC-U construction criteria:</b> EN ISO 16138, EN ISO 1452, EN ISO 15493 <b>PVC-C construction criteria:</b> EN ISO 16138, EN ISO 15493 <b>PP-H construction criteria:</b> EN ISO 16138, EN ISO 15494 <b>PVDF construction criteria:</b> EN ISO 16138, EN ISO 10931 <b>Test methods and requirements:</b> ISO 9393 <b>PVC-U/PVC-C installation criteria:</b> DVS 2204, DVS 2221, UNI 11242 <b>PP-H installation criteria:</b> DVS 2202-1, DVS 2207-11, DVS 2208-1, UNI 11318 <b>PVDF installation criteria:</b> DVS 2202-1, DVS 2207-15, DVS 2208-1
<b>Valve material</b>	PVC-U / PVC-C / PP-H / PVDF
<b>Seal material</b>	EPDM, FKM, PTFE
<b>Control options</b>	Pneumatic actuator

The new compact and light piston actuator in PP-GR makes the CM/CP the ideal choice for applications requiring very frequent valve operation and a long valve lifetime.

Technical specifications - Pneumatic actuator	
<b>Construction</b>	Single-acting (NC-NO) and double-acting (DA) pneumatic piston actuator
<b>Actuator material</b>	<b>Body and bonnet:</b> PP-GR <b>Position indicator cap:</b> PC
<b>Control air pressure</b>	<b>Minimum:</b> according to working pressure and actuator function (see graphs) <b>Maximum:</b> NC: 7 bar - NO: 5 bar - DA: 5 bar
<b>Power supply</b>	Dry or lubricated filtered compressed air. If using other fluids, contact the FIP service centre
<b>Control fluid temperature</b>	Max 40 °C
<b>Temperature range</b>	-20 °C ÷ 50 °C
<b>Standard equipment</b>	• Optical position indicator
<b>Accessories</b>	<ul style="list-style-type: none"> <li>• Stroke limiter with position indicator</li> <li>• Electromechanical limit switches</li> <li>• Inductive limit switches (proximity)</li> <li>• Pilot solenoid valves 3-5/2 ways for direct or manifold mounting</li> <li>• Distance plate</li> </ul>



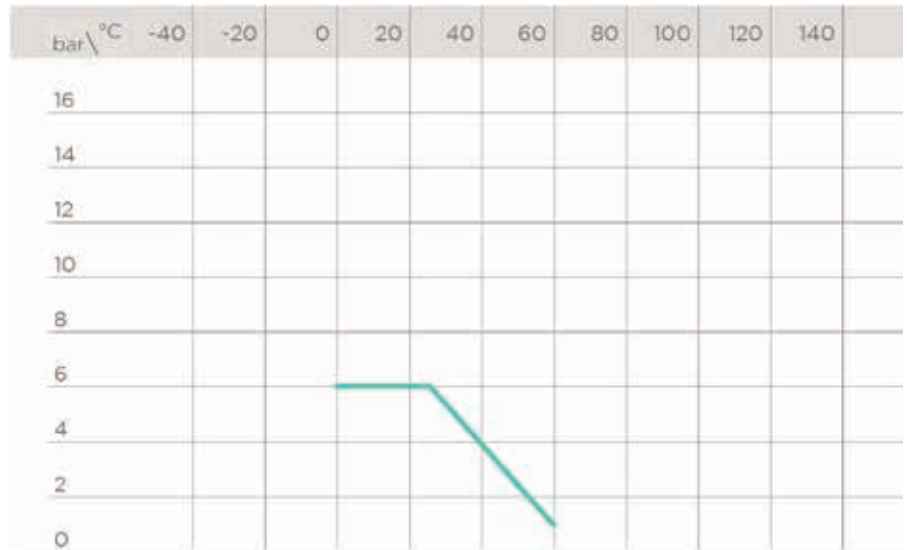
- 1** Compact and lightweight piston actuator in PP-GR, free of exposed metallic parts, particularly suited for use in severe environmental and chemically aggressive conditions.
- 2** High strength IXEF piston guarantees high reliability over time without maintenance.
- 3** High visibility graduated optical position indicator protected by a transparent cap with a seal O-Ring.

# TECHNICAL DATA

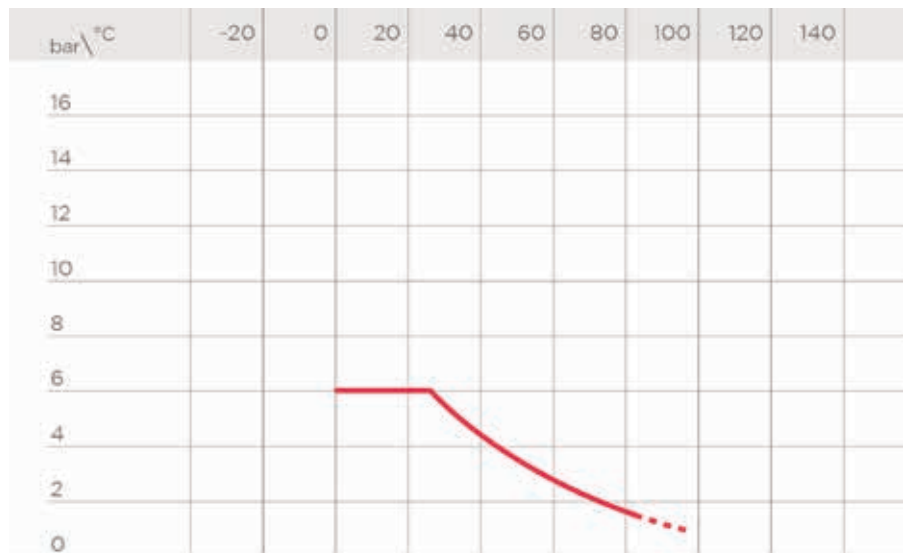
## PRESSURE VARIATION ACCORDING TO TEMPERATURE

### PVC-U BODY

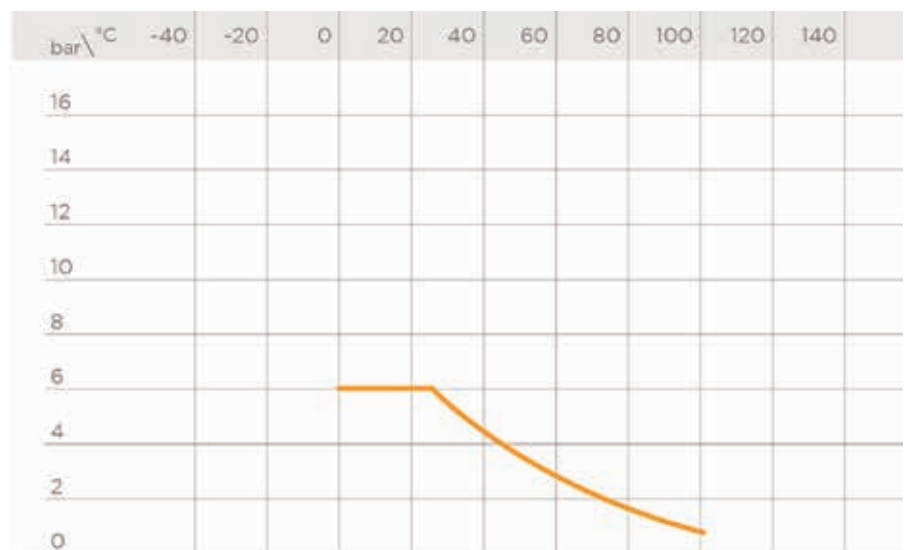
For water and non-hazardous fluids with regard to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required (25 years with safety factor).



### PVC-C BODY



### PP-H BODY

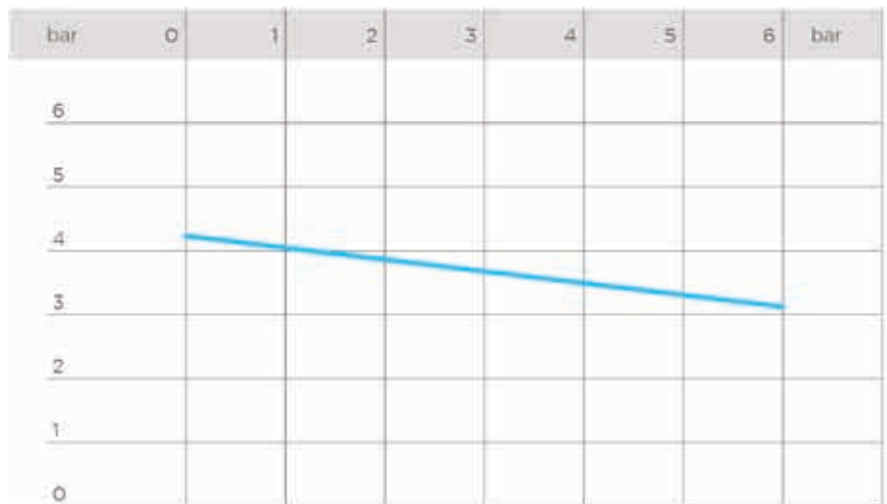


## PVDF BODY



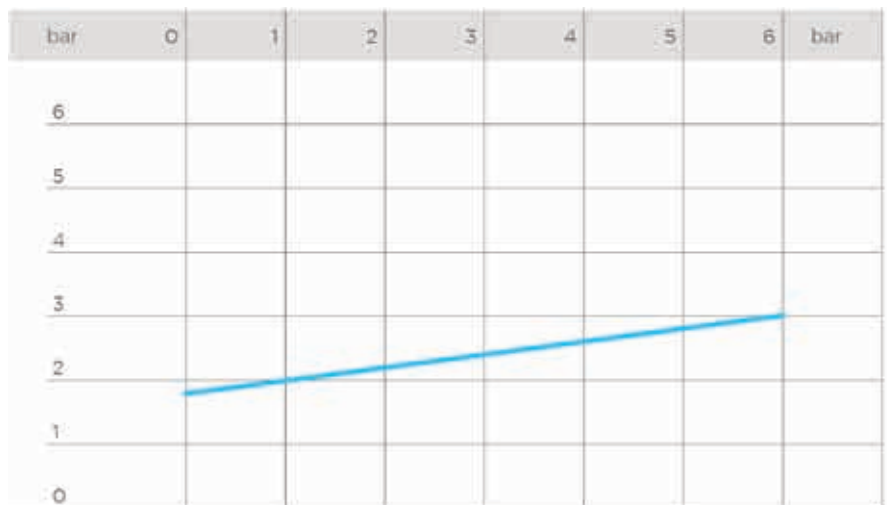
## CONTROL PRESSURE ACCORDING TO CM/CP NC WORKING PRESSURE

Minimum control pressure according to working pressure with EPDM/FKM diaphragm  
 X axis: working pressure  
 Y axis: control pressure



## CONTROL PRESSURE ACCORDING TO CM/CP NO WORKING PRESSURE

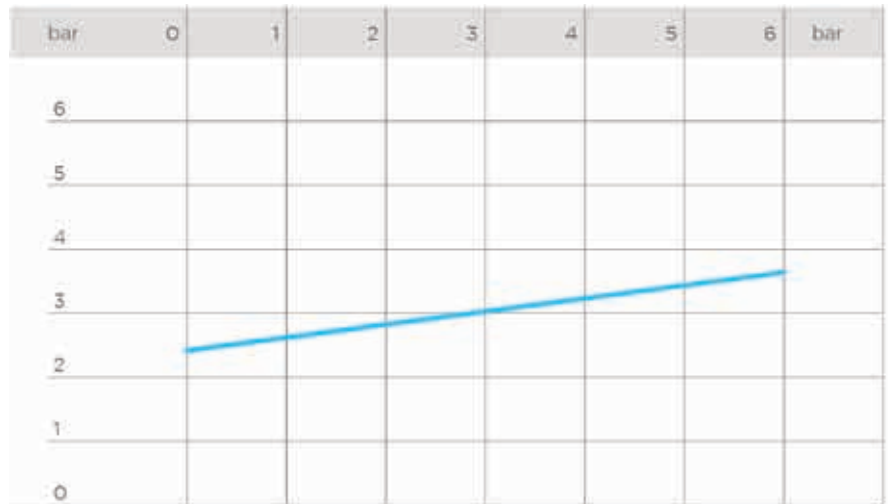
Minimum control pressure (Y axis) according to working pressure (X axis) with EPDM/FKM diaphragm  
 X axis: working pressure  
 Y axis: control pressure



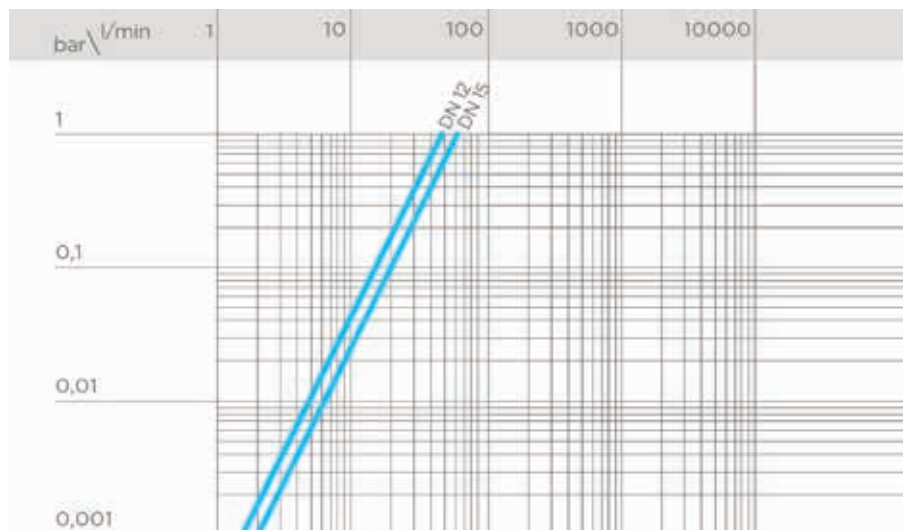


## CONTROL PRESSURE ACCORDING TO CM/CP DA WORKING PRESSURE

Minimum control pressure (Y axis) according to working pressure (X axis) with EPDM/FKM diaphragm  
 X axis: working pressure  
 Y axis: control pressure



## PRESSURE DROP GRAPH



## K<sub>v</sub> 100 FLOW COEFFICIENT

The K<sub>v</sub>100 flow coefficient is the Q flow of litres per minute of water at a temperature of 20°C that will generate Δp= 1 bar pressure drop at a certain valve position.  
 The K<sub>v</sub>100 values shown in the table are calculated with the valve completely open.

DN	12	15
Kv100 l/min	47	58

# PNEUMATIC ACTUATOR DATA

## FUNCTIONAL CHARACTERISTICS

Function type	double-acting	Normally closed (NC)	Normally Open (NO)
Valve opening	air	air	spring
Valve closing	air	spring	air

## ACTUATOR CAPACITY

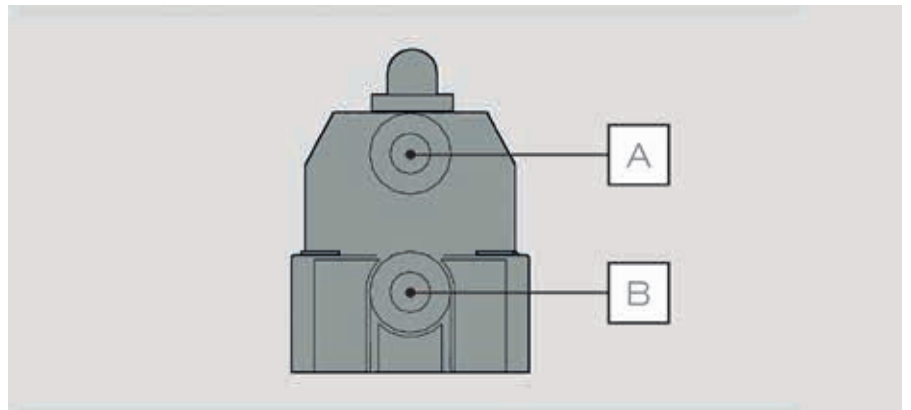
L: litre, equivalent to  $10^{-3} \text{ m}^3$

Air consumption in normal litres (or normal cubic metres) per operating cycle can be calculated by correcting according to operating conditions such as control air pressure.

DN	15	20
NC	0.027 L	0.027 L
NO	0.027 L	0.027 L
DA	0.054 L	0.054 L

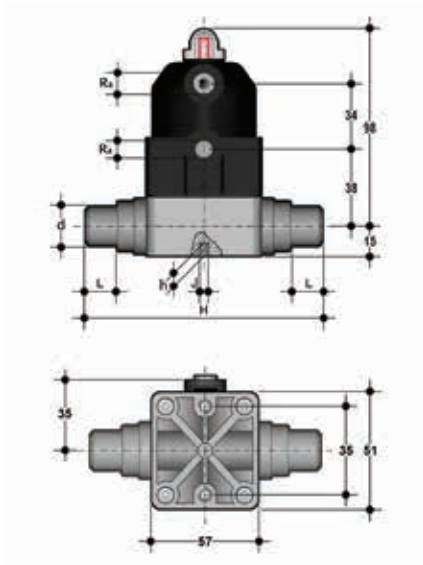
## COMPRESSED AIR CONNECTIONS

Function type	Double-acting (DA)	Normally closed (NC)	Normally Open (NO)
Valve opening	Inlet B	Inlet B	-
Valve closing	Inlet A	-	Inlet A



# DIMENSIONS

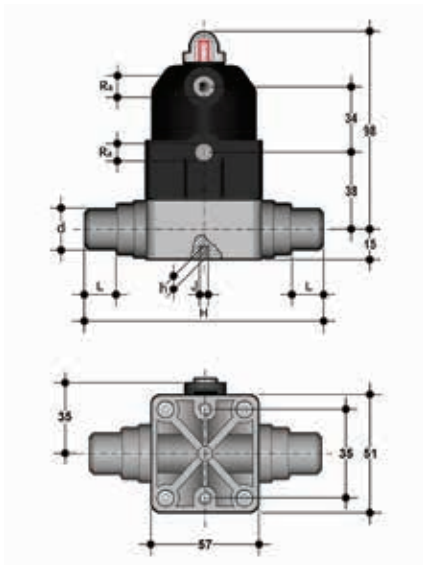
## CM/CP DN 12÷15 PVC-U



### CMDV/CP NC

Compact diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Normally Closed function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	340	CMDVNC020E	CMDVNC020F	CMDVNC020P



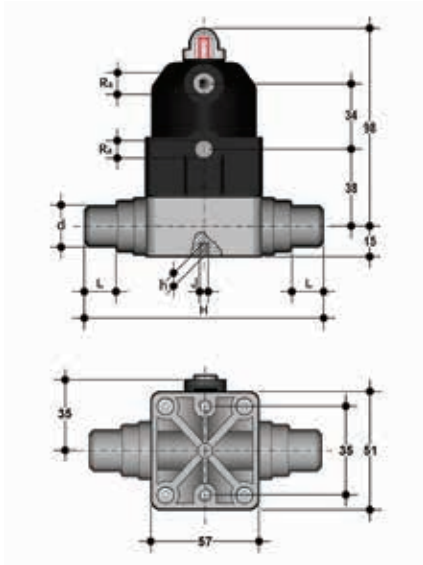
### CMDV/CP NO

Compact diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Normally Open function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	340	CMDVNO020E	CMDVNO020F	CMDVNO020P

# DIMENSIONS

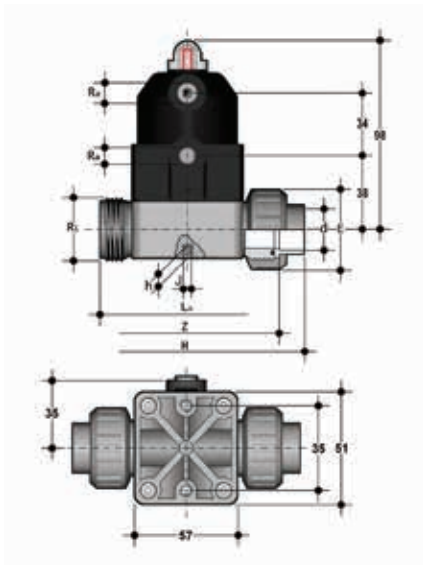
## CM/CP DN 12÷15 PVC-U



### CMDV/CP DA

Compact diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Double-Acting function

d	DN	PN	B <sub>1</sub>	R <sub>1</sub>	R <sub>2</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"		17	124	8	M5	340	CMDVDA020E	CMDVDA020F	CMDVDA020P



### CMUIV/CP NC

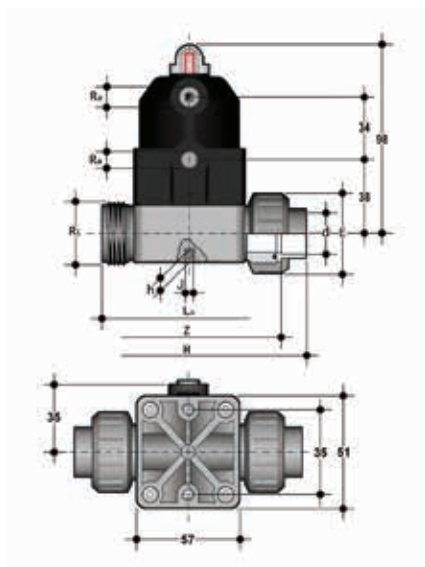
Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Normally Closed function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUIVNC020E	CMUIVNC020F	CMUIVNC020P

\*FKM union O-ring

# DIMENSIONS

## CM/CP DN 12÷15 PVC-U

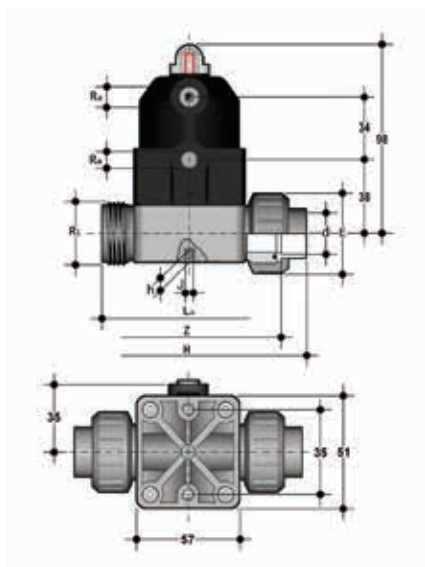


### CMUIV/CP NO

Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Normally Open function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUIVNO020E	CMUIVNO020F	CMUIVNO020P

\*FKM union O-ring



### CMUIV/CP DA

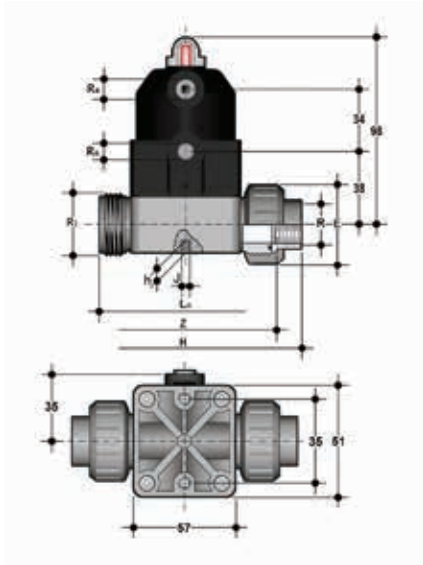
Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Double-Acting function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUIVDA020E	CMUIVDA020F	CMUIVDA020P

\*FKM union O-ring

# DIMENSIONS

## CM/CP DN 12÷15 PVC-U

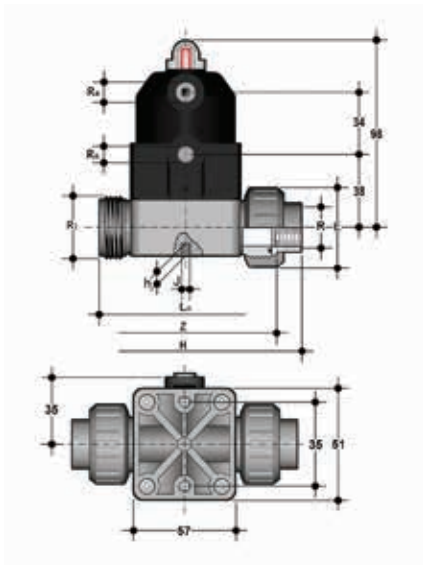


### CMUFV/CP NC

Compact diaphragm valve with female union ends, pneumatically actuated gas cylinder thread, Normally Closed function

R	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>1</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
1/2"	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUFVNC012E	CMUFVNC012F	CMUFVNC012P

\*FKM union O-ring



### CMUFV/CP NO

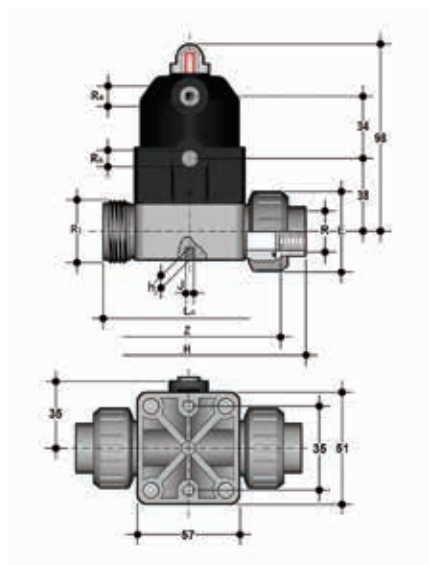
Compact diaphragm valve with female union ends, pneumatically actuated gas cylinder thread, Normally Open function

R	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>1</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
1/2"	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUFVNO012E	CMUFVNO012F	CMUFVNO012P

\*FKM union O-ring

# DIMENSIONS

## CM/CP DN 12÷15 PVC-U

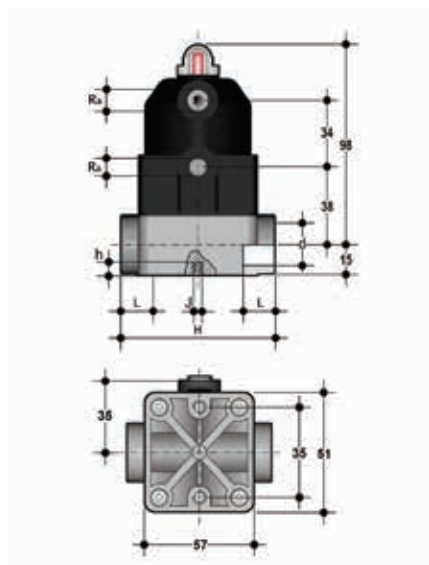


### CMUFV/CP DA

Compact diaphragm valve with female union ends, pneumatically actuated gas cylinder thread, Double-Acting function

R	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>x</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
1/2"	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUFVDA012E	CMUFVDA012F	CMUFVDA012P

\*FKM union O-ring



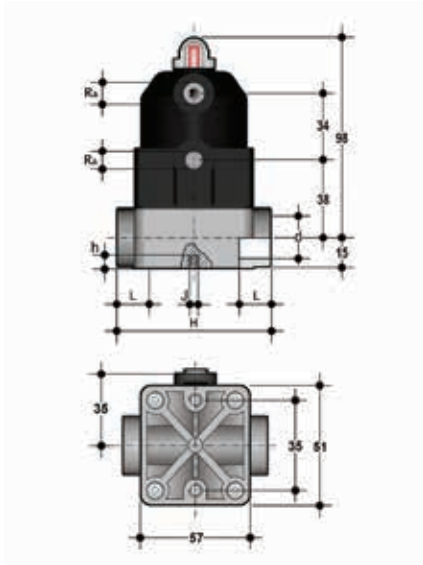
### CMIV/CP NC

Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Normally Closed function

d	DN	PN	R <sub>3</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"	14	75	8	M5	340	CMIVNC016E	CMIVNC016F	CMIVNC016P
20	15	6	G 1/4"	16	75	8	M5	340	CMIVNC020E	CMIVNC020F	CMIVNC020P

# DIMENSIONS

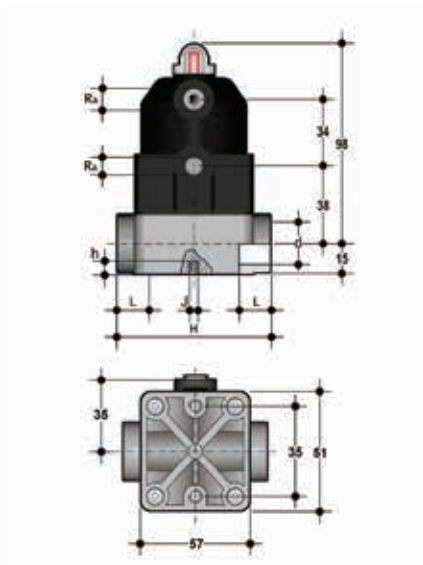
## CM/CP DN 12÷15 PVC-U



### CMIV/CP NO

Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Normally Open function

d	DN	PN	R <sub>o</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"	14	75	8	M5	340	CMIVNO016E	CMIVNO016F	CMIVNO016P
20	15	6	G 1/4"	16	75	8	M5	340	CMIVNO020E	CMIVNO020F	CMIVNO020P



### CMIV/CP DA

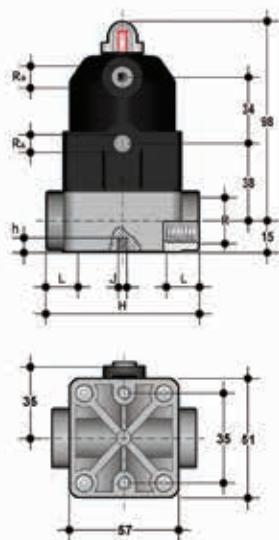
Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Double-Acting function

d	DN	PN	R <sub>o</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"	14	75	8	M5	340	CMIVDA016E	CMIVDA016F	CMIVDA016P
20	15	6	G 1/4"	16	75	8	M5	340	CMIVDA020E	CMIVDA020F	CMIVDA020P



# DIMENSIONS

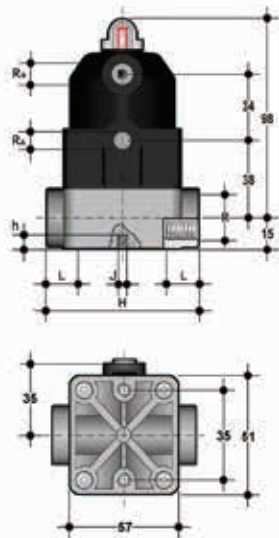
## CM/CP DN 12÷15 PVC-U



### CMFV/CP NC

Compact diaphragm valve with female ends, pneumatically actuated gas cylinder thread, Normally Closed function

R	DN	PN	R <sub>1</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	11.5	75	8	M5	340	CMFVNC038E	CMFVNC038F	CMFVNC038P
1/2"	15	6	G 1/4"	15	75	8	M5	340	CMFVNC012E	CMFVNC012F	CMFVNC012P



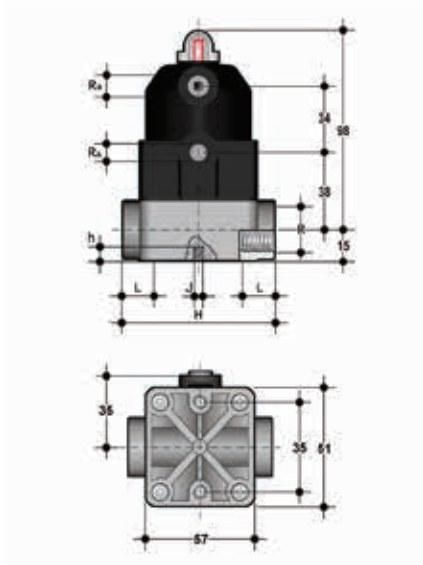
### CMFV/CP NO

Compact diaphragm valve with female ends, pneumatically actuated gas cylinder thread, Normally Open function

R	DN	PN	R <sub>1</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	11.5	75	8	M5	340	CMFVNO038E	CMFVNO038F	CMFVNO038P
1/2"	15	6	G 1/4"	15	75	8	M5	340	CMFVNO012E	CMFVNO012F	CMFVNO012P

# DIMENSIONS

## CM/CP DN 12÷15 PVC-U



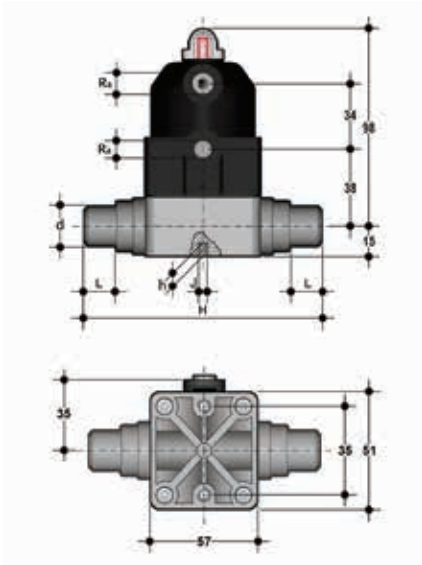
### CMFV/CP DA

Compact diaphragm valve with female ends, pneumatically actuated gas cylinder thread, Double-Acting function

R	DN	PN	R <sub>2</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	11.5	75	8	M5	340	CMFVDA038E	CMFVDA038F	CMFVDA038P
1/2"	15	6	G 1/4"	15	75	8	M5	340	CMFVDA012E	CMFVDA012F	CMFVDA012P

# DIMENSIONS

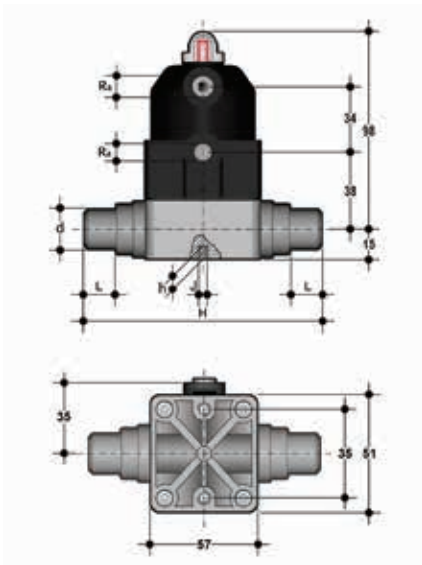
## CM/CP DN 12÷15 PVC-C



### CMDC/CP NC

Compact diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Normally Closed function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	340	CMDNCN020E	CMDNCN020F	CMDNCN020P



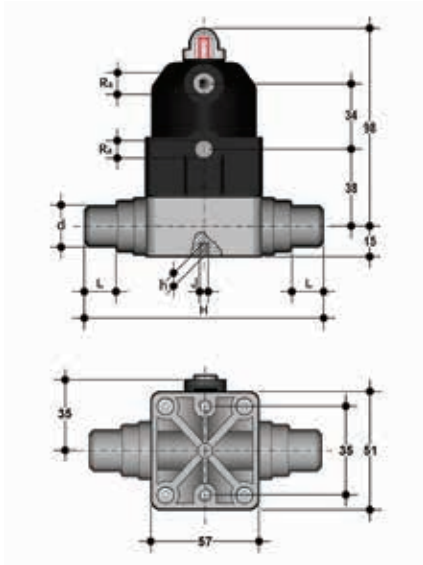
### CMDC/CP NO

Compact diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Normally Open function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	340	CMDCNO020E	CMDCNO020F	CMDCNO020P

# DIMENSIONS

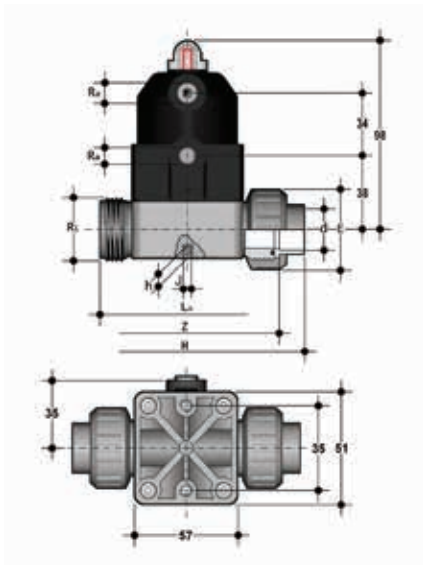
## CM/CP DN 12÷15 PVC-C



### CMDC/CP DA

Compact diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Double-Acting function

d	DN	PN	B <sub>1</sub>	R <sub>2</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	340	CMDCCA020E	CMDCCA020F	CMDCCA020P



### CMUIC/CP NC

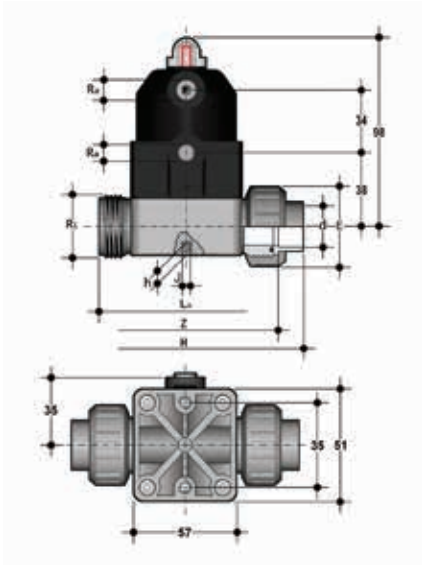
Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Normally Closed function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUICNC020E	CMUICNC020F	CMUICNC020P

\*FKM union O-ring

# DIMENSIONS

## CM/CP DN 12÷15 PVC-C

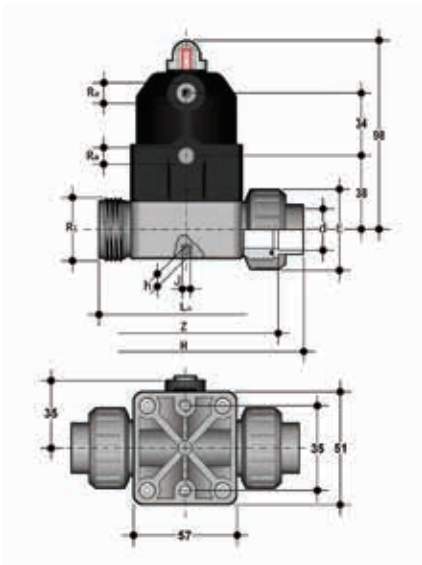


### CMUIC/CP NO

Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Normally Open function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUICNO020E	CMUICNO020F	CMUICNO020P

\*FKM union O-ring



### CMUIC/CP DA

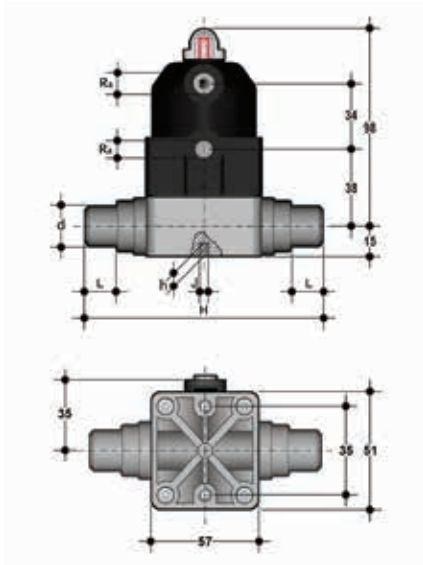
Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Double-Acting function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUICDA020E	CMUICDA020F	CMUICDA020P

\*FKM union O-ring

# DIMENSIONS

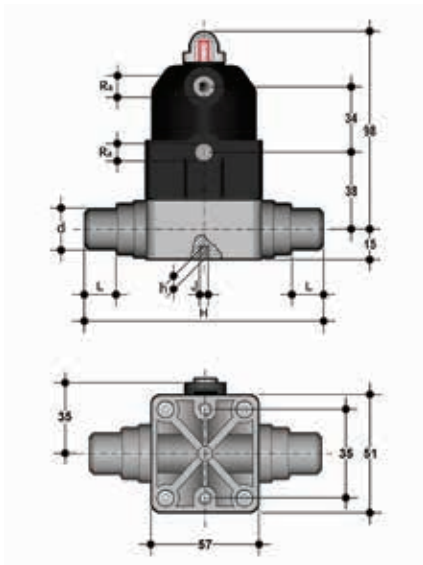
## CM/CP DN 12÷15 PP-H



### CMDM/CP NC

Compact diaphragm valve with male ends for pneumatically actuated socket welding, Normally Closed function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	300	CMDMNC020E	CMDMNC020F	CMDMNC020P



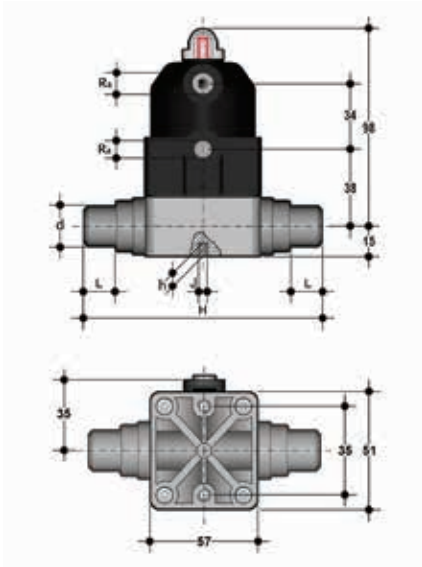
### CMDM/CP NO

Compact diaphragm valve with male ends for pneumatically actuated socket welding, Normally Open function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	300	CMDMNO020E	CMDMNO020F	CMDMNO020P

# DIMENSIONS

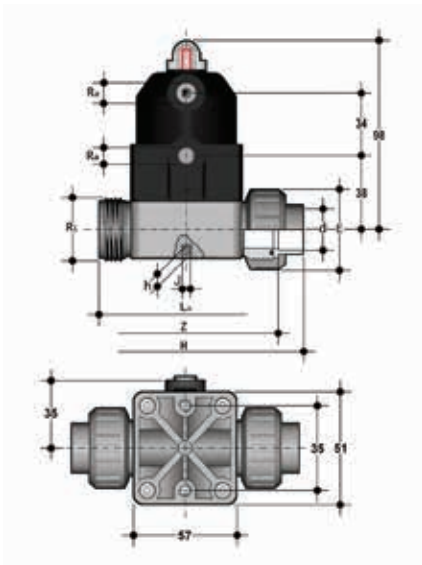
## CM/CP DN 12÷15 PP-H



### CMDM/CP DA

Compact diaphragm valve with male ends for pneumatically actuated socket welding, Double-Acting function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	300	CMDMDA020E	CMDMDA020F	CMDMDA020P



### CMUIM/CP NC

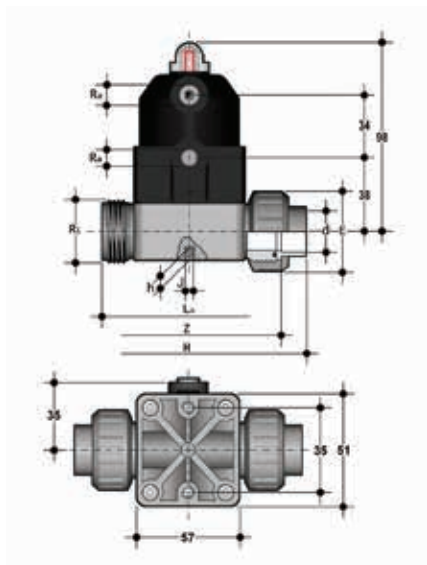
Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Normally Closed function

d	DN	PN	E	R <sub>1</sub>	R <sub>0</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	47.5	1"	G 1/4"	90	98	130	8	M5	300	CMUIMNC020E	CMUIMNC020F	CMUIMNC020P

\*FKM union O-ring

# DIMENSIONS

## CM/CP DN 12÷15 PP-H

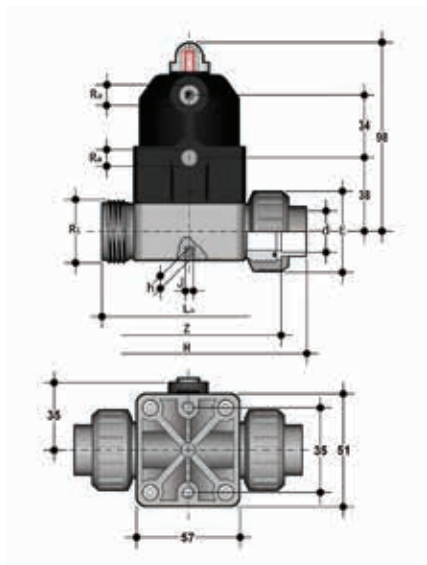


### CMUIM/CP NO

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Normally Open function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	47.5	1"	G 1/4"	90	98	130	8	M5	300	CMUIMNO020E	CMUIMNO020F	CMUIMNO020P

\*FKM union O-ring



### CMUIM/CP DA

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Double-Acting function

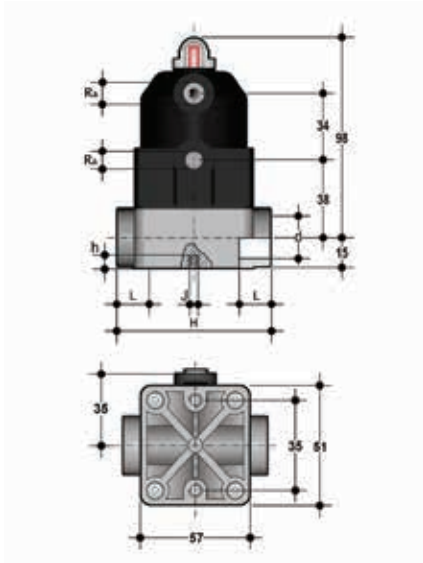
d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	47.5	1"	G 1/4"	90	98	130	8	M5	300	CMUIMDA020E	CMUIMDA020F	CMUIMDA020P

\*FKM union O-ring



# DIMENSIONS

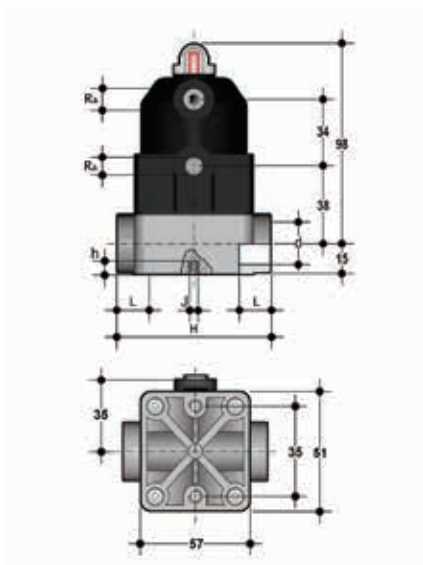
## CM/CP DN 12÷15 PP-H



### CMIM/CP NC

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Normally Closed function

d	DN	PN	R <sub>o</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"	14	75	8	M5	300	CMIMNC016E	CMIMNC016F	CMIMNC016P
20	15	6	G 1/4"	16	75	8	M5	300	CMIMNC020E	CMIMNC020F	CMIMNC020P



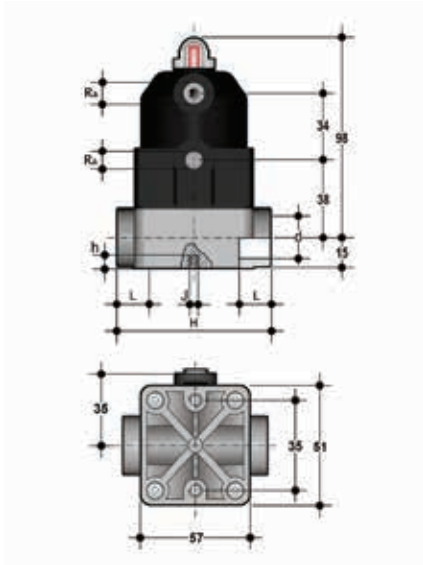
### CMIM/CP NO

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Normally Open function

d	DN	PN	R <sub>o</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"	14	75	8	M5	300	CMIMNO016E	CMIMNO016F	CMIMNO016P
20	15	6	G 1/4"	16	75	8	M5	300	CMIMNO020E	CMIMNO020F	CMIMNO020P

# DIMENSIONS

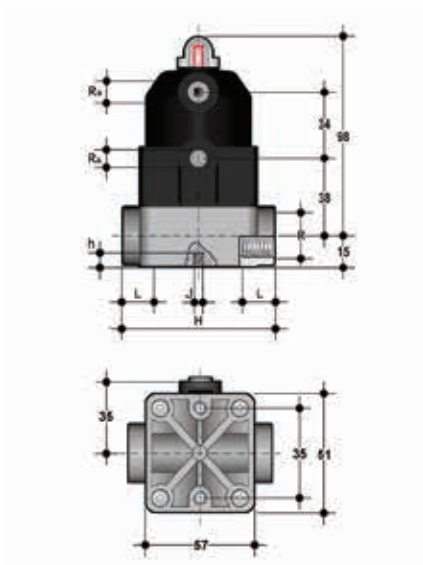
## CM/CP DN 12÷15 PP-H



### CMIM/CP DA

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Double-Acting function

d	DN	PN	R <sub>1</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"	14	75	8	M5	300	CMIMDA016E	CMIMDA016F	CMIMDA016P
20	15	6	G 1/4"	16	75	8	M5	300	CMIMDA020E	CMIMDA020F	CMIMDA020P



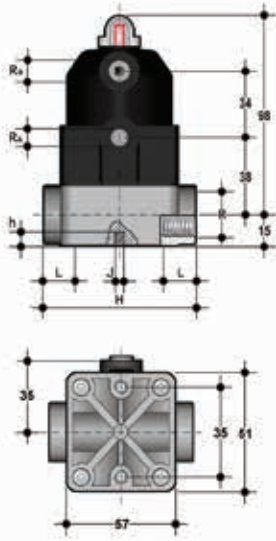
### CMFM/CP NC

Compact diaphragm valve with BSP pneumatically actuated threaded female ends. Normally Closed function

R	DN	PN	R <sub>1</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	12	75	8	M5	300	CMFMNC038E	CMFMNC038F	CMFMNC038P
1/2"	15	6	G 1/4"	15	75	8	M5	300	CMFMNC012E	CMFMNC012F	CMFMNC012P

# DIMENSIONS

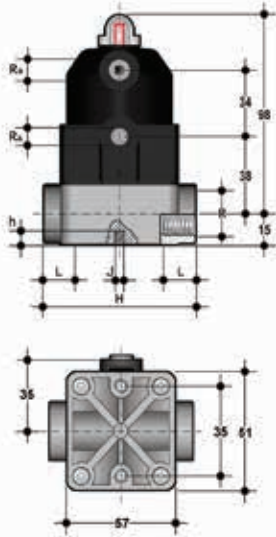
## CM/CP DN 12÷15 PP-H



### CMFM/CP NO

Compact diaphragm valve with BSP pneumatically actuated threaded female ends. Normally Open function

R	DN	PN	R <sub>2</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	12	75	8	M5	300	CMFMNO038E	CMFMNO038F	CMFMNO038P
1/2"	15	6	G 1/4"	15	75	8	M5	300	CMFMNO012E	CMFMNO012F	CMFMNO012P



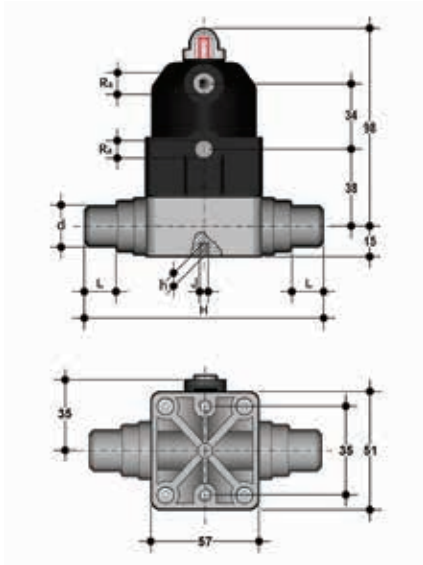
### CMFM/CP DA

Compact diaphragm valve with BSP pneumatically actuated threaded female ends. Double-Acting function

R	DN	PN	R <sub>2</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	12	75	8	M5	300	CMFMDA038E	CMFMDA038F	CMFMDA038P
1/2"	15	6	G 1/4"	15	75	8	M5	300	CMFMDA012E	CMFMDA012F	CMFMDA012P

# DIMENSIONS

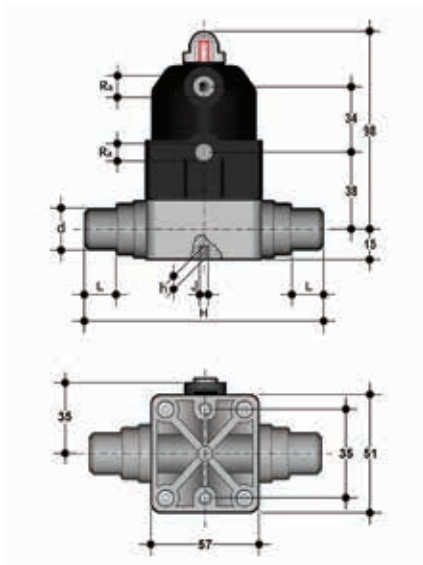
## CM/CP DN 12÷15 PVDF



### CMDF/CP NC

Compact diaphragm valve with male ends for pneumatically actuated socket welding,  
Normally Closed function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	360	CMDFNC020E	CMDFNC020F	CMDFNC020P



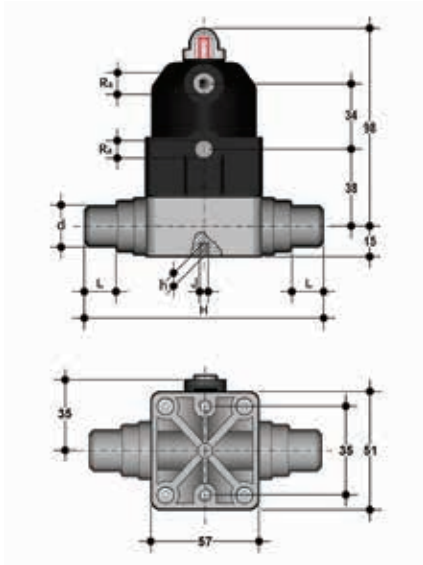
### CMDF/CP NO

Compact diaphragm valve with male ends for pneumatically actuated socket welding,  
Normally Open function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	360	CMDFNO020E	CMDFNO020F	CMDFNO020P

# DIMENSIONS

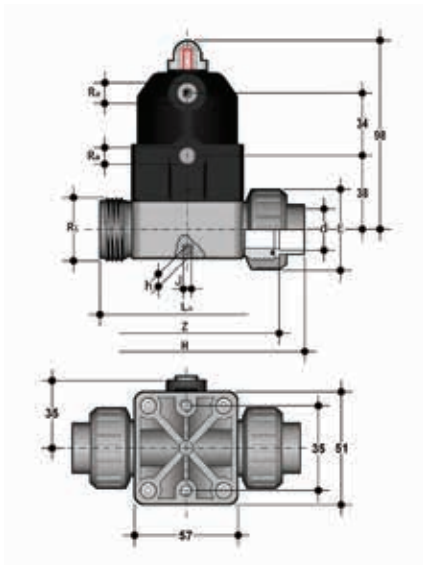
## CM/CP DN 12÷15 PVDF



### CMDF/CP DA

Compact diaphragm valve with male ends for pneumatically actuated socket welding, Double-Acting function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	360	CMDFDA020E	CMDFDA020F	CMDFDA020P



### CMUIF/CP NC

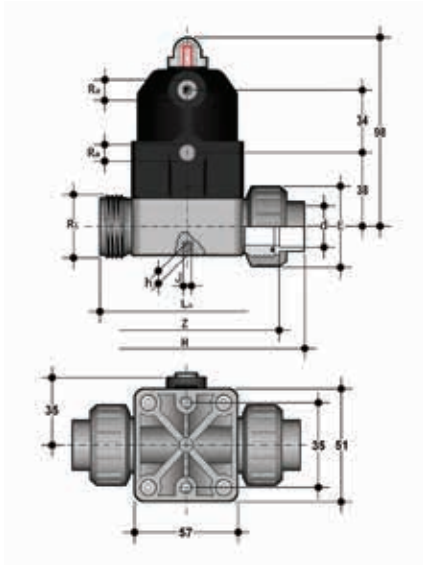
Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Normally Closed function

d	DN	PN	E	R <sub>1</sub>	R <sub>0</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	360	CMUIFNC020E	CMUIFNC020F	CMUIFNC020P

\*FKM union O-ring

# DIMENSIONS

## CM/CP DN 12÷15 PVDF

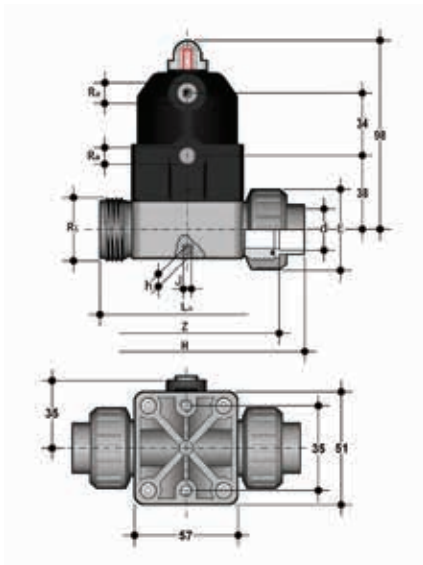


### CMUIF/CP NO

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Normally Open function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	360	CMUIFNO020E	CMUIFNO020F	CMUIFNO020P

\*FKM union O-ring



### CMUIF/CP DA

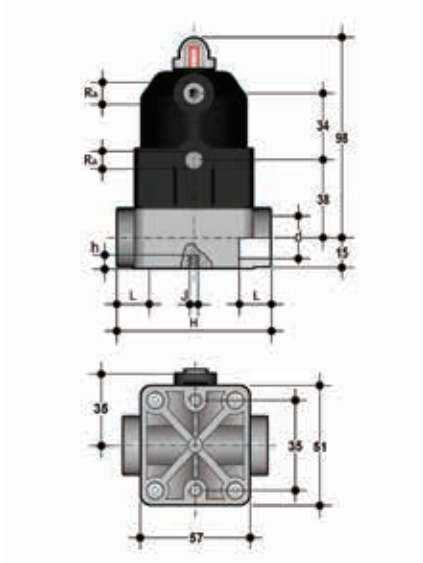
Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Double-Acting function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	360	CMUIFDA020E	CMUIFDA020F	CMUIFDA020P

\*FKM union O-ring

# DIMENSIONS

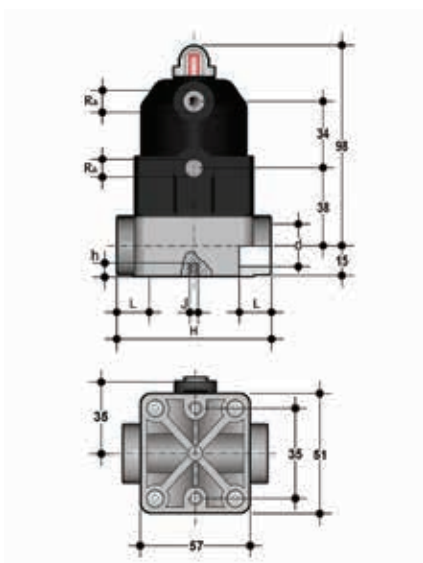
## CM/CP DN 12÷15 PVDF



### CMIF/CP NC

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Normally Closed function

d	DN	PN	R <sub>o</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"	14	75	8	M5	360	CMIFNC016E	CMIFNC016F	CMIFNC016P
20	15	6	G 1/4"	16	75	8	M5	360	CMIFNC020E	CMIFNC020F	CMIFNC020P



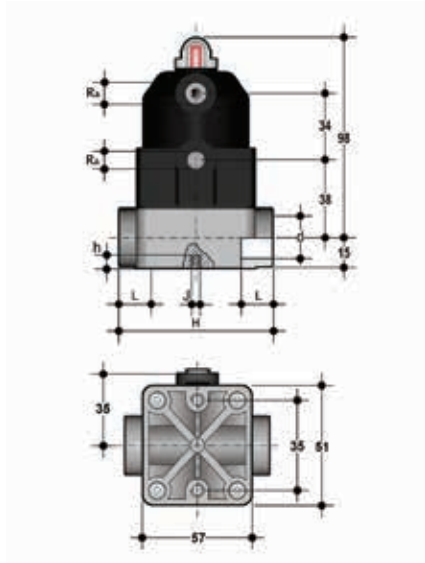
### CMIF/CP NO

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Normally Open function

d	DN	PN	R <sub>o</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"	14	75	8	M5	360	CMIFNO016E	CMIFNO016F	CMIFNO016P
20	15	6	G 1/4"	16	75	8	M5	360	CMIFNO020E	CMIFNO020F	CMIFNO020P

# DIMENSIONS

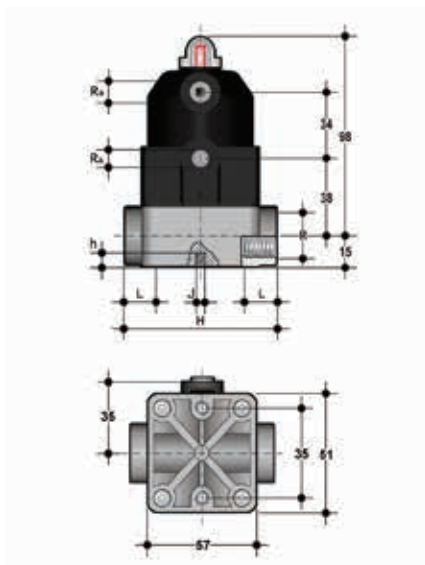
## CM/CP DN 12÷15 PVDF



### CMIF/CP DA

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Double-Acting function

d	DN	PN	R <sub>1</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"	14	75	8	M5	360	CMIFDA016E	CMIFDA016F	CMIFDA016P
20	15	6	G 1/4"	16	75	8	M5	360	CMIFDA020E	CMIFDA020F	CMIFDA020P



### CMFF/CP NC

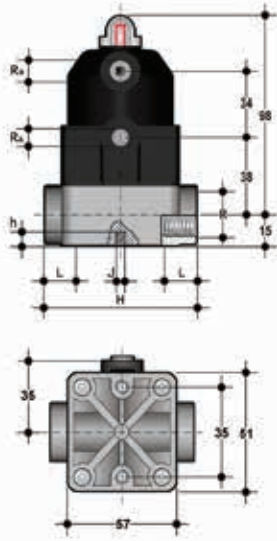
Compact diaphragm valve with BSP pneumatically actuated threaded female ends. Normally Closed function

R	DN	PN	R <sub>1</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	11.5	75	8	M5	360	CMFFNC038E	CMFFNC038F	CMFFNC038P
1/2"	15	6	G 1/4"	15	75	8	M5	360	CMFFNC012E	CMFFNC012F	CMFFNC012P



# DIMENSIONS

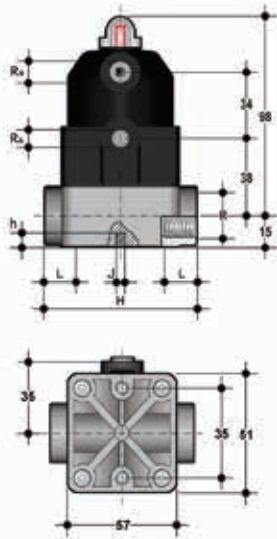
## CM/CP DN 12÷15 PVDF



### CMFF/CP NO

Compact diaphragm valve with BSP pneumatically actuated threaded female ends. Normally Open function

R	DN	PN	R <sub>2</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	11.5	75	8	M5	360	CMFFNO038E	CMFFNO038F	CMFFNO038P
1/2"	15	6	G 1/4"	15	75	8	M5	360	CMFFNO012E	CMFFNO012F	CMFFNO012P



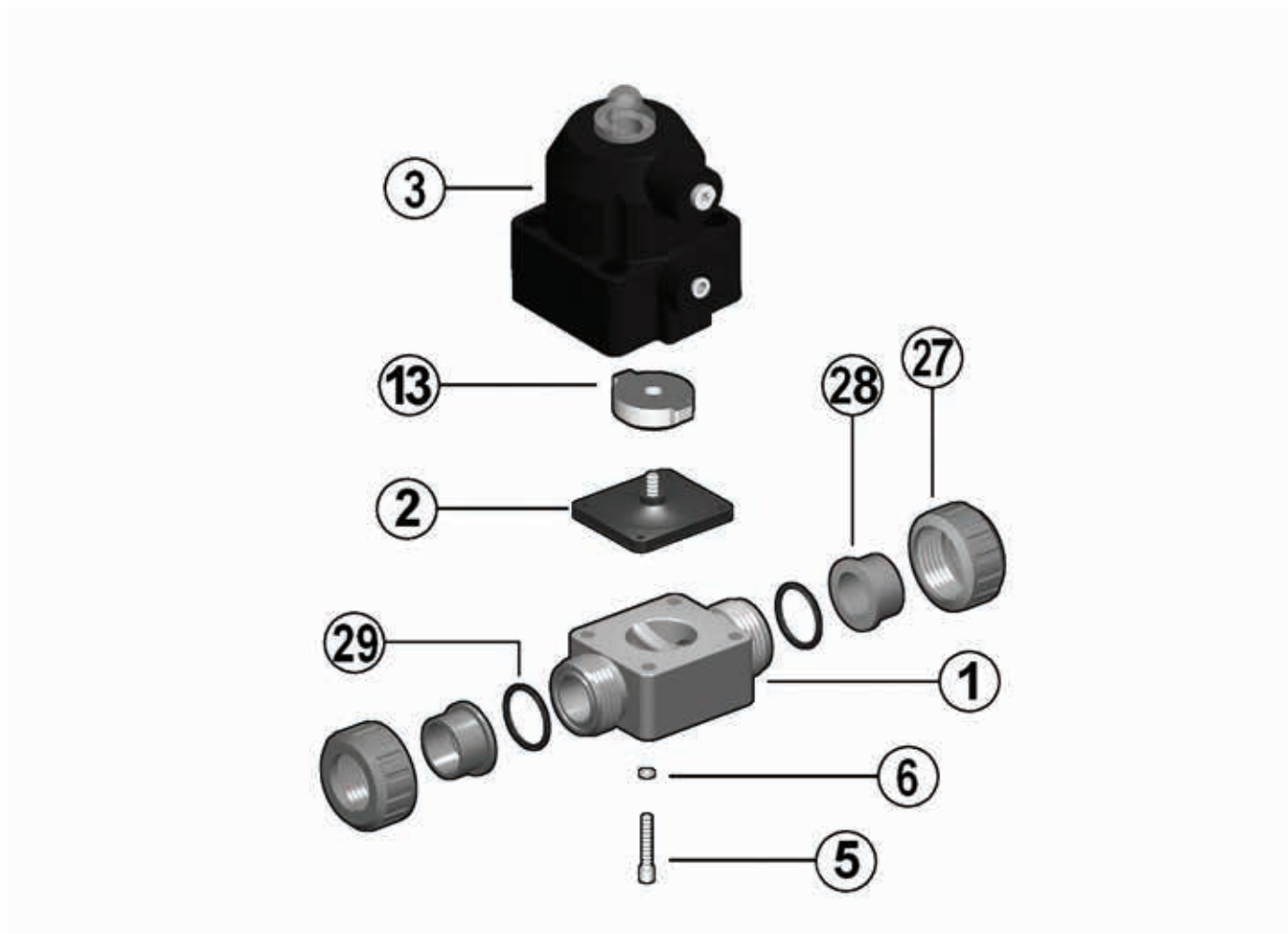
### CMFF/CP DA

Compact diaphragm valve with BSP pneumatically actuated threaded female ends. Double-Acting function

R	DN	PN	R <sub>2</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	11.5	75	8	M5	360	CMFFDA038E	CMFFDA038F	CMFFDA038P
1/2"	15	6	G 1/4"	15	75	8	M5	360	CMFFDA012E	CMFFDA012F	CMFFDA012P

# COMPONENTS

## EXPLODED VIEW



**1** Body (PVC-U/PVC-C/PP-H/PVDF - 1)\*

**2** Diaphragm (EPDM - FKM - PTFE - 1)\*

**3** Actuator (PP-GR - 1)\*

**5** Screw (STAINLESS steel - 4)\*

**6** Washer (STAINLESS steel - 4)\*

**13** Shutter (PA-MXD6- 1)\*

**27** Union nut (PVC-U, PVC-C,PP-H, PVDF - 2)\*

**28** End connector (PVC-U, PVC-C,PP-H, PVDF - 2)

**29** Socket seal O-Ring (EPDM-FKM - 2)\*

\* Spare parts

The material the component is made of and the quantity supplied are shown in brackets

## DISASSEMBLY

- 1) Isolate the valve from the line (release the pressure and empty the pipeline).
- 2) Open the valve with compressed air (NC-DA) to drain any residual liquid from the valve.
- 3) Disconnect the valve from the pneumatic and electrical connections.
- 4) Unscrew the union nuts (27) and extract the valve.
- 5) Unscrew the screws (5) with their washers (6). This operation will be made easier if the actuator is pressurised (NC).
- 6) Separate the valve body (1) from the actuator (3).
- 7) Unscrew the diaphragm (2) and remove the compressor (13). This operation will be made easier if the actuator is not pressurised (NC).

## ASSEMBLY

- 1) Insert the compressor (13) on the actuator shaft (3).
- 2) Screw the diaphragm (2) onto the stem, aligning it correctly with its housing on the actuator.
- 3) Mount the actuator (3) on the valve body (1) and screw in the bolts (5) with the relative washers (6). This operation will be made easier if the actuator is pressurised (NC).
- 4) Tighten the bolts (5) evenly (diagonally) to the tightening torque suggested on the relative instruction sheet.
- 5) Position the valve between the end connectors (28) and tighten the union nuts (27), making sure that the socket seal O-rings (29) do not exit their seats.
- 6) Reconnect the valve to the pneumatic and electrical connections.



**Note:** All operations on equipment under pressure or containing compressed springs must be carried out under safe conditions for the operator.

# INSTALLATION

The valve can be installed in any position and in any direction.

Before proceeding with installation, please follow these instructions carefully: (instructions refer to versions with union ends).

- 1) Check that the pipes to be connected to the valve are aligned in order to avoid mechanical stress on the threaded joints.
- 2) Unscrew the union nuts (27) and insert them on the pipe segments.
- 3) Solvent weld or screw the end connectors (28) onto the pipe ends.
- 4) Position the valve body between the end connectors making sure the socket seal O-Rings (29) do not exit the seats.
- 5) Completely tighten the union nuts (27).
- 6) Connect the compressed air as indicated in "Compressed air connections" For valves with electric accessories, refer to the specific technical manual supplied with the accessory.

## WARNINGS

**Note:** before putting the valve into service, check that the bolts on the valve body (1) are tightened correctly at the torque indicated in the instruction sheet.



# ACCESSORIES

Pneumatically actuated valves



# Diaphragm valves

## Accessories

Series DK - DKB - DKD - VM - CM

### Accessory reference in valve code

#### Character position examples

Valve description	Valve code (without accessories)	Reference (last three positions to be added at the end of the valve code)		
Diaphragm valve DKUIV d50 DN40, body in PVC-U, diaphragm in PTFE, ISO female solvent welding union ends, with pneumatic actuator Single-acting, Normally closed, with pilot solenoid valve SP/NC 24 V DC	<b>DKUIVNC050P</b>	<b>0</b>	<b>0</b>	<b>1</b>
Diaphragm valve DKDM d32 DN25, body in PP-H and diaphragm in EPDM, male ISO fittings for socket welding, with pneumatic actuator, Single-acting, Normally open with electromechanical microswitch box and stroke limiter	<b>DKDMNO032E</b>	<b>1</b>	<b>M</b>	<b>-</b>
Only if positions 2 and 3 are used		<b>0</b>		
<b>Position 1</b> Stroke limiter only for microswitch box		<b>1</b>		
Only if position 3 is used			<b>0</b>	
Stroke limiter with position indicator			<b>T</b>	
Stroke limiter with optical position indicator and manual override			<b>R</b>	
Electromechanical microswitch box (24.85 and 24.91)			<b>M</b>	
Inductive microswitch box NAMUR (24.86 and 24.92)			<b>N</b>	
PNP inductive microswitch box (24.87)			<b>I</b>	
Limit switch (24.90)			<b>1</b>	
Dry contract microswitch box (24.50)			<b>F</b>	
Smart electro-pneumatic positioner 4-20 mA			<b>E</b>	
<b>Position 2</b>				<b>S</b>
SP/NC 24V DC pilot solenoid valve				<b>1</b>
SP/NC 24V AC pilot solenoid valve				<b>2</b>
SP/NC 110V AC pilot solenoid valve				<b>3</b>
SP/NC 230V AC pilot solenoid valve				<b>4</b>
SD/NO 24V DC pilot solenoid valve				<b>5</b>
Pilot solenoid valve Namur "2EV" 24V DC				<b>A</b>
Pilot solenoid valve Namur "2EV" 24V AC				<b>B</b>
Pilot solenoid valve Namur "2EV" 110V AC				<b>C</b>
<b>Position 3</b> Pilot solenoid valve Namur "2EV" 230V AC				<b>D</b>



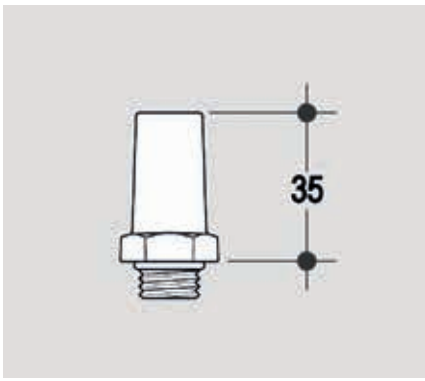
## Optical position indicator

Optical position indicator with protection cover and O-ring

For use with valves in series:	DN	Code	POS.1*	POS.2*	POS.3*
VM / CP	80 ÷ 100	ZIN005	-	V	-

\*Reference (last three positions to be added at the end of the valve code)

\*\*factory assembled only





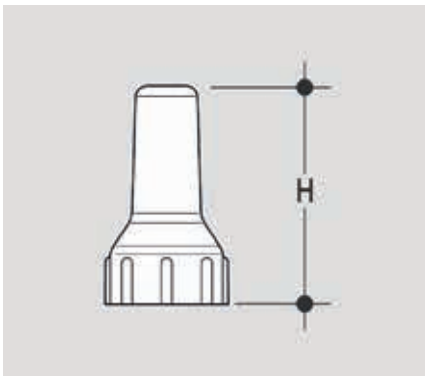
## Stroke limiter with optical position indicator

Stroke limiter with position indicator, protection cover and O-ring

For use with valves in series:	DN	H	Code	POS.1*	POS.2*	POS.3*
DK / NC	15 ÷ 32	60	ZLI001	-	T	-
DK / NO - DA	15 ÷ 32	60	ZLI002	-	T	-
DK / NC	40 ÷ 65	110	ZLI103	-	T	-
DK / NO - DA	40 ÷ 65	110	ZLI104	-	T	-
**VM / NC	80 ÷ 100	110	-	-	T	-
**VM / NO - DA	80 ÷ 100	110	-	-	T	-
CM / CP	12 ÷ 15	45	ZLI010	-	T	-

\*Reference (last three positions to be added at the end of the valve code)

\*\*factory assembled only





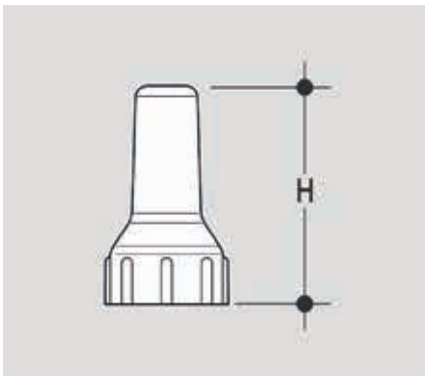


## Stroke limiter with optical position indicator and manual override

Stroke limiter with position indicator, manual override, protection cover and O-ring

For use with valves in series:	DN	H	Code	POS.1*	POS.2*	POS.3*
DK / NC	15 ÷ 32	60	ZLIM001	-	R	-
DK / NO - DA	15 ÷ 32	60	ZLIM002	-	R	-
DK / NC	40	60	ZLIM103	-	R	-
DK / NO - DA	40	60	ZLIM104	-	R	-
DK / NC	50 ÷ 65	60	ZLIM103	-	R	-
DK / NO - DA	50 ÷ 65	60	ZLIM104	-	R	-

\*Reference (last three positions to be added at the end of the valve code)



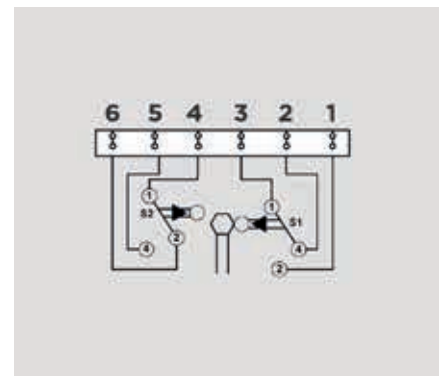
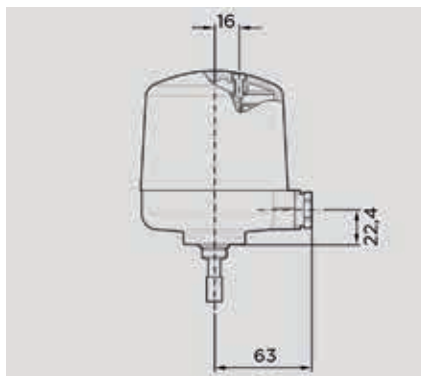
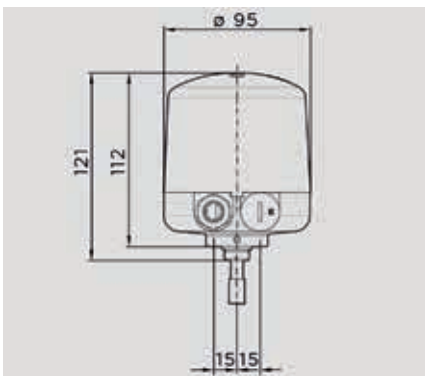


## Electromechanical microswitch box

IP 65 box with two electromechanical limit switches

For use with valves in series:	DN	Code	POS.1*	POS.2*	POS.3*
DK / CP	15 ÷ 65	ZMSMEC001	-	M	-
VM / NC	80 ÷ 100	ZMSMEC004	-	M	-
VM / NO - DA	80	ZMSMEC005	-	M	-
VM / NO - DA	100	ZMSMEC006	-	M	-

\*Reference (last three positions to be added at the end of the valve code)



CLOSED VALVE

1 NC  
2 NO  
3 COM

OPEN VALVE  
4 COM  
5 NO  
6 NC

### TECHNICAL DATA

Switch type	SPDT
Max contacts rate	6A, 250V AC
Protection class	IP65 / DIN IEN 60529
Temperature range	-20°C ÷ +60°C
Cable inlet	1 PG 13,5/10-12mm cable gland
Material	Body: PPGR Cover: polycarbonate



## Electromechanical microswitch box with stroke limiter

IP 65 box with two electromechanical limit switches and stroke limiter

For use with valves in series:	DN	Code	POS.1*	POS.2*	POS.3*
DK / NC	15 ÷ 32	ZMSMECLIM001	1	M	-
DK / NC	40	ZMSMECLIM102	1	M	-
DK / NC	50 ÷ 65	ZMSMECLIM103	1	M	-
VM / NC	80	ZMSMECLIM005	1	M	-
VM / NC	100	ZMSMECLIM006	1	M	-

\*Reference (last three positions to be added at the end of the valve code)

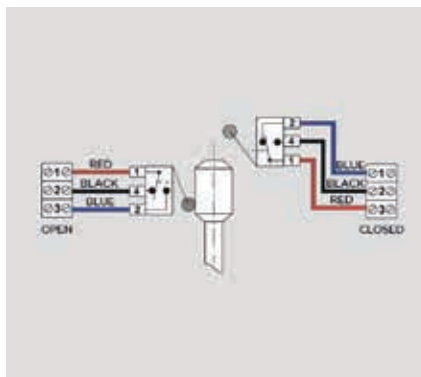
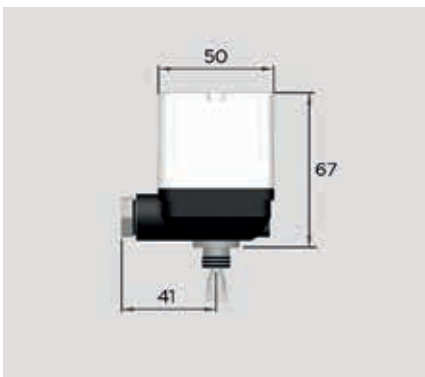


## CM electromechanical microswitch box

IP 65 box with two electromechanical limit switches

For use with valves in series:	DN	Code	POS.1*	POS.2*	POS.3*
CM / CP	12 ÷ 15	ZMSMECCM	-	M	-

\*Reference (last three positions to be added at the end of the valve code)



### TECHNICAL DATA

Switch type	SPDT
Contacts rate	10A, 250V AC
Protection class	IP65 / DIN IEN 60529
Temperature range	-20°C ÷ +60°C
Cable inlet	1 PG 11/8-10mm cable gland
Material	Body: PPGR Cover: polycarbonate



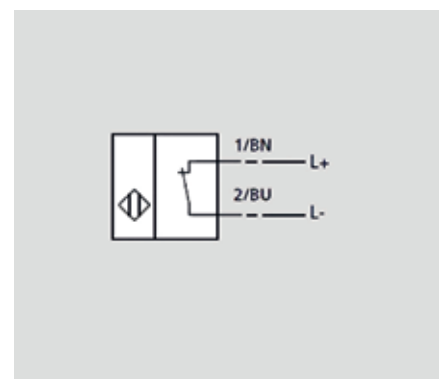
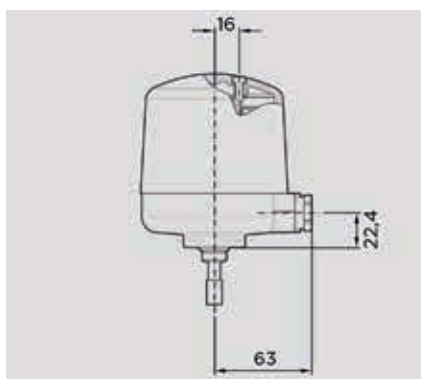
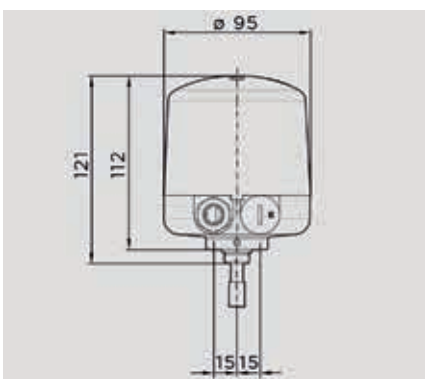
## NAMUR inductive microswitch box

IP 65 box with two NAMUR\*\* type inductive limit switches Safety class: Eex ia IIC T6

For use with valves in series:	DN	Code	POS.1*	POS.2*	POS.3*
DK / CP	15 ÷ 65	ZMSNAM001	-	N	-
VM / NC	80 ÷ 100	ZMSNAM004	-	N	-
VM / NO - DA	80	ZMSNAM005	-	N	-
VM / NO - DA	100	ZMSNAM006	-	N	-

\*Reference (last three positions to be added at the end of the valve code)

\*\*For use with amplifier



### TECHNICAL DATA

Sensor Type	P+F mod. NJ2-V3-N, 2 wire NAMUR
Rated voltage	8.2V
Current consumption	≥ 3mA size sheet not read ≥ 1mA size sheet read
Protection class	IP65 / DIN IEN 60529
ATEX safety class	II 1G Ex ia IIC T6..T1 Ga
Temperature range	-20°C ÷ +60°C
Cable inlet	1 PG 13,5/10-12mm cable gland
Material	Body: PPGR Cover: polycarbonate



## NAMUR inductive microswitch box with stroke limiter

IP 65 box with two NAMUR type inductive limit switches and stroke limiter

For use with valves in series:	DN	Code	POS.1*	POS.2*	POS.3*
DK / NC	15 ÷ 32	ZMSNAMLIM001	1	N	-
DK / NC	40	ZMSNAMLIM102	1	N	-
DK / NC	50 ÷ 65	ZMSNAMLIM103	1	N	-
VM / NC	80	ZMSNAMLIM005	1	N	-
VM / NC	100	ZMSNAMLIM006	1	N	-

\*Reference (last three positions to be added at the end of the valve code)



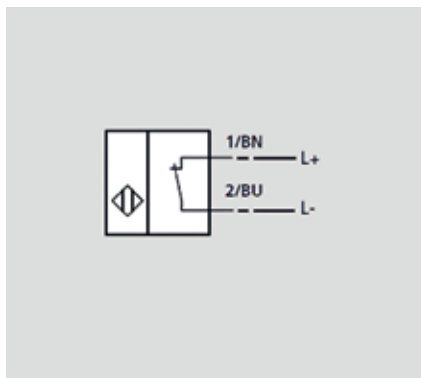
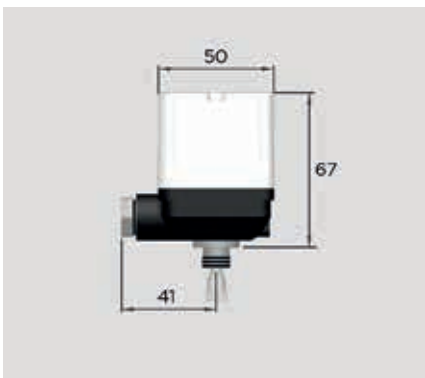
## NAMUR CM inductive microswitch box

IP 65 box with two NAMUR\*\* type inductive limit switches Safety class: Eex ia IIC T6

For use with valves in series:	DN	Code	POS.1*	POS.2*	POS.3*
CM / CP	12 ÷ 15	ZMSNAMCM	-	N	-

\*Reference (last three positions to be added at the end of the valve code)

\*\*For use with amplifier



### TECHNICAL DATA

Sensor Type	P+F mod. NJ0,8-4,5-N, 2 wire NAMUR
Rated voltage	8.2V
Current consumption	≥ 3mA size sheet not read ≥ 1mA size sheet read
Protection class	IP65 / DIN IEN 60529
ATEX safety class	II 1G Ex ia IIC T6..T1 Ga
Temperature range	-20°C ÷ +60°C
Cable inlet	1 PG 11/8-10mm cable gland
Material	Body: PPGR Cover: polycarbonate

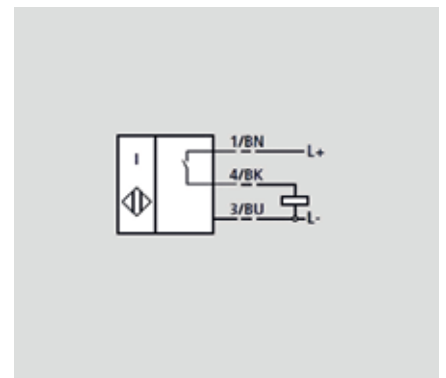
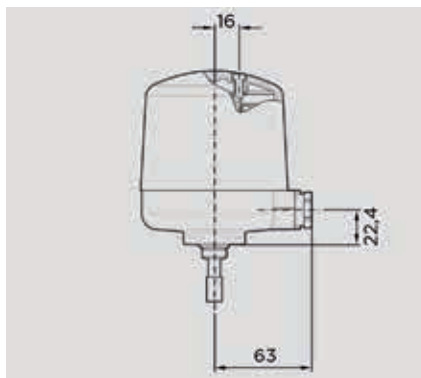
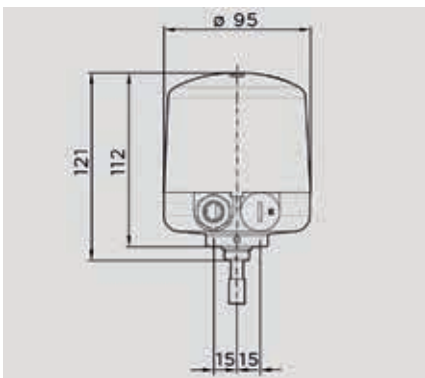


## PNP inductive microswitch box

IP 65 box with two PNP NO wire type inductive limit switches

For use with valves in series:	DN	Code	POS.1*	POS.2*	POS.3*
DK / CP	15 ÷ 65	ZMSPNP001	-	I	-
VM / NC	80 ÷ 100	ZMSPNP004	-	I	-
VM / NO - DA	80	ZMSPNP005	-	I	-
VM / NO - DA	100	ZMSPNP006	-	I	-

\*Reference (last three positions to be added at the end of the valve code)



### TECHNICAL DATA

Sensor Type	P+F mod. NBB2-V3-E2, 3 wire iPNP
Rated voltage	24V DC
Operating voltage	10 ÷ 30V DC
Voltage drop	≤ 3V
Operating current	0 ÷ 100mA
Empty current	≤ 15mA
Protection class	IP65 / DIN IEN 60529
Temperature range	-20°C ÷ +60°C
Cable inlet	1 PG 13,5/10-12mm cable gland
Material	Body: PPGR Cover: polycarbonate



## PNP inductive microswitch box with stroke limiter

IP 65 box with two PNP NO 3-wire type inductive limit switches and stroke limiter

For use with valves in series:	DN	Code	POS.1*	POS.2*	POS.3*
DK / NC	15 ÷ 32	ZMSPNPLIM001	1	I	-
DK / NC	40	ZMSPNPLIM102	1	I	-
DK / NC	50 ÷ 65	ZMSPNPLIM103	1	I	-
VM / NC	80	ZMSPNPLIM005	1	I	-
VM / NC	100	ZMSPNPLIM006	1	I	-

\*Reference (last three positions to be added at the end of the valve code)

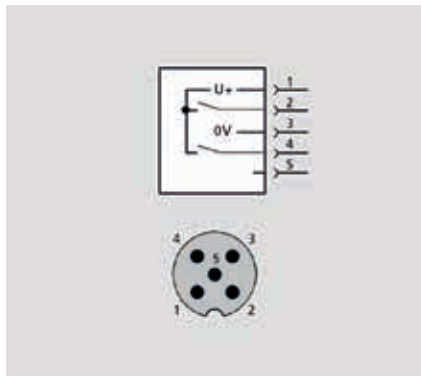
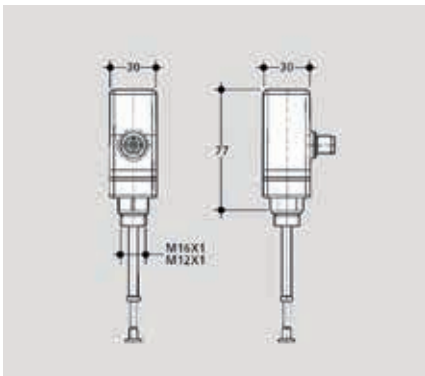


## Contact free microswitch box

IP 67 contact free box

For use with valves in series:	DN	Code	POS.1*	POS.2*	POS.3*
DK / CP	15 ÷ 65	ZMS001	-	F	-
VM / NC	80	ZMS001	-	F	-
VM / NO - DA	80 ÷ 100	ZMS001	-	F	-
CM / CP	12 ÷ 15	ZMS002	-	F	-

\*Reference (last three positions to be added at the end of the valve code)



### ELECTRICAL CONNECTION

- 1 Power supplies +24VDC
- 2 OPEN signal
- 3 Power GND
- 4 CLOSED signal
- 5 Programming input

### TECHNICAL DATA

Supply Voltage	24V DC +/- 10%
Current consumption	0.7W
Maximum input current	30mA
Switch current	800mA
Precision	+/- 0.1mm
Maximum pressure	8bar
Measurement range	3-45mm
Protection class	IP67 / DIN60529
Temperature range	-10°C ÷ +70°C
Electrical connection	M12 multi-core connector, 5 pin, type A
EC compliance	EMV 2014/30/EU
Material	Case: PPSU Mechanical adapter: stainless steel

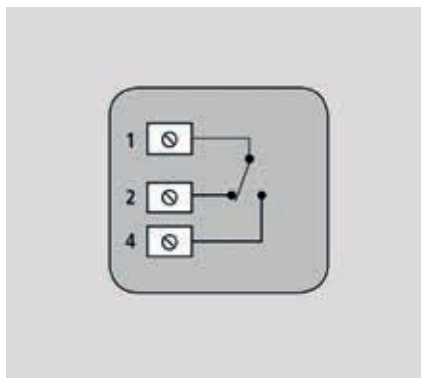
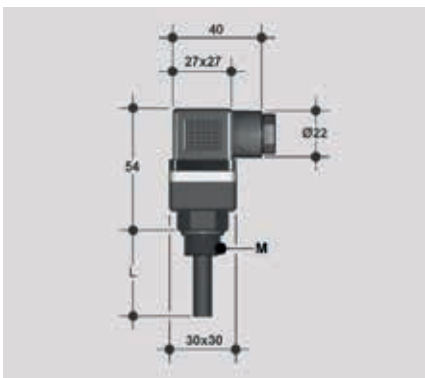


## IP 65 limit switch

Electromechanical limit switch for normally closed valves

For use with valves in series:	DN	Code	POS.1*	POS.2*	POS.3*
DK / NC	15 ÷ 32	ZMSFC001	-	1	-
DK / NC	40 ÷ 65	ZMSFC002	-	1	-
VM / NC	80 ÷ 100	ZMSFC005	-	1	-
CM / CP	12 ÷ 15	ZMSFC009	-	1	-

\*Reference (last three positions to be added at the end of the valve code)



### TECHNICAL DATA

Switch type	SPDT
Contacts rate	5A, 250V AC
Protection class	IP65 / DIN IEN 60529
Temperature range	-10°C ÷ +55°C
Material	Body: PPGR Bonnet: PA





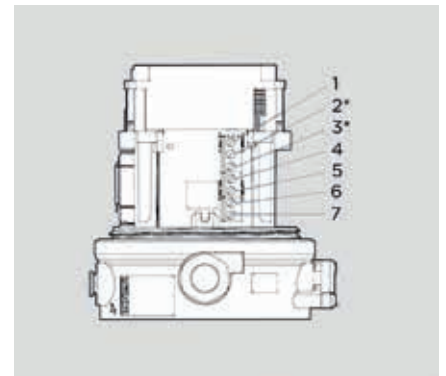
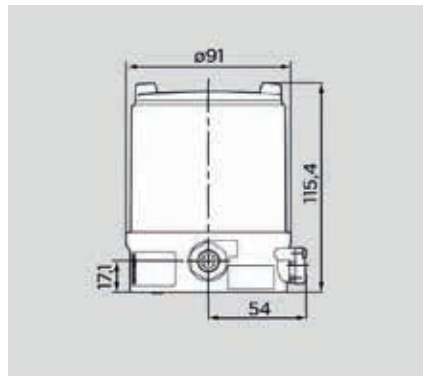
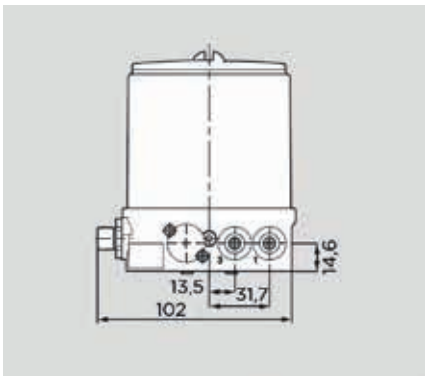
## SA electro-pneumatic positioner

Single-acting smart electro-pneumatic positioner with 4 - 20 mA input plus 4-20mA transmitter

For use with valves in series:	DN	Code	POS.1*	POS.2*	POS.3*
**DK / NC - NO	15 ÷ 65	-	-	E	-
**VM / NC - NO	80 ÷ 100	-	-	E	-

\*Reference (last three positions to be added at the end of the valve code)

\*\*factory assembled only



### ELECTRICAL CONNECTION

- 1 Input +
- 4 Setpoint + (+4/20mA IN)
- 5 Setpoint GND (-4/20mA IN)
- 6 Power 24V DC
- 7 Power GND

\*version with analogue feedback output signal

### TECHNICAL DATA

Input signal	0-20mA / 4-20mA / 0-5V
Supply Voltage	24V DC +/-10%
Current consumption	≤ 3,5 W
Impedance	180Ω (0/4 - 20 mA)
Air pressure	3÷7 bar
Temperature range	-10°C ÷ +50 °C
Protection class	IP65 / DIN60529
Electrical connection	1 M16x1.5 cable gland
Air connections	G1/4" - G1/8"
Material	Cover: polycarbonate Body: stainless steel, PPS Gaskets: EPDM

Special or alternative versions upon request



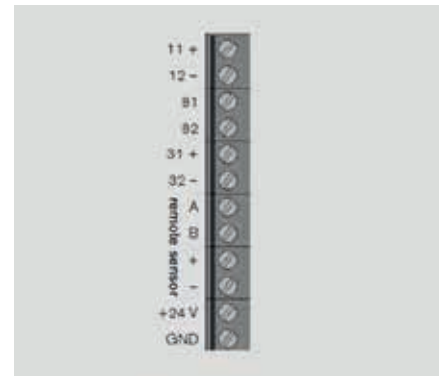
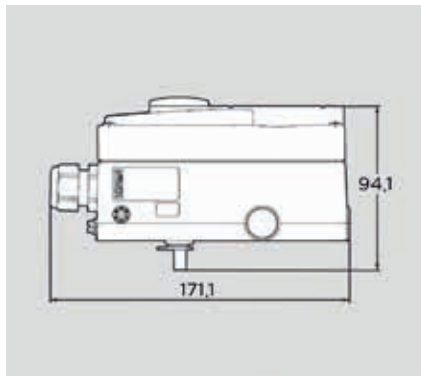
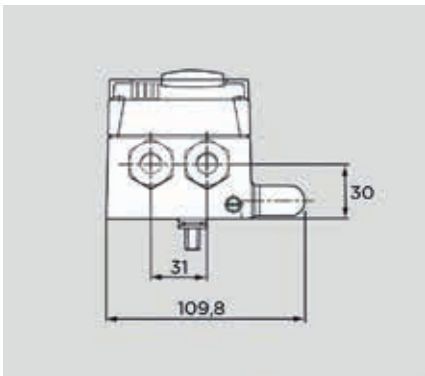
## DA electro-pneumatic positioner

Double-acting smart electro-pneumatic positioner with 4 - 20 mA input plus 4-20mA transmitter

For use with valves in series:	DN	Code	POS.1*	POS.2*	POS.3*
** DK / DA	15 ÷ 32	-	-	E	-
**VM / DA	80 ÷ 100	-	-	E	-

\*Reference (last three positions to be added at the end of the valve code)

\*\*factory assembled only



### ELECTRICAL CONNECTION

- 81** Input +
- 11** Setpoint + (+4/20mA IN)
- 12** Setpoint GND (-4/20mA IN)
- +24V** Power 24V DC
- GND** Power GND

### TECHNICAL DATA

Input signal	0-20mA / 4-20mA / 0-5V
Supply Voltage	24V DC +/-10%
Current consumption	< 3,5 W
Impedance	180Ω (0/4 - 20 mA)
Air pressure	1,4±7 bar
Maximum air consumption	150 NI/min
Temperature range	0°C ÷ +60 °C
Protection class	IP65 / DIN60529
Electrical connection	2 M20x1.5 cable glands
Air connections	G1/4"
Material	Body: painted aluminium Gaskets: EPDM, FKM, NBR



## "SP/NC" pilot solenoid valve

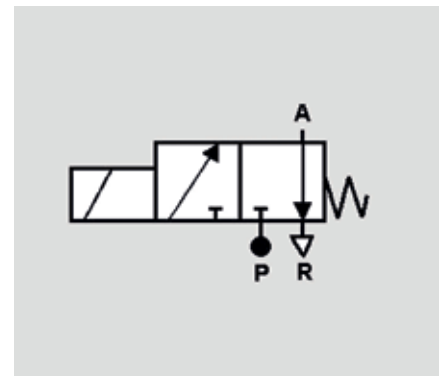
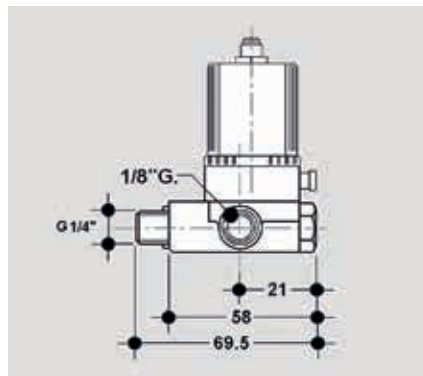
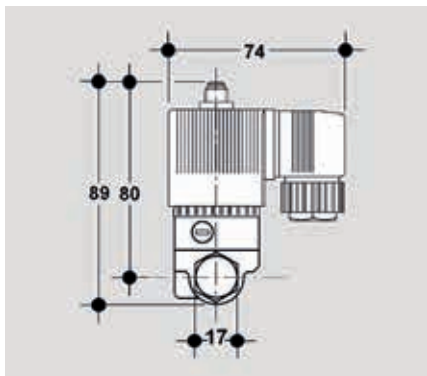
3/2 way pilot solenoid valve, for direct assembly on actuator, with NBR\*\* normally closed gaskets

For use with valves in series:	Voltage	Code	POS.1*	POS.2*	POS.3*
DK/CP - DKB/CP - DKD/CP - VM/CP - CM/CP	24V DC	SPNC014N024DC	-	-	1
DK/CP - DKB/CP - DKD/CP - VM/CP - CM/CP	24V AC 50 Hz	SPNC014N024AC	-	-	2
DK/CP - DKB/CP - DKD/CP - VM/CP - CM/CP	110V AC 50 Hz	SPNC014N110AC	-	-	3
DK/CP - DKB/CP - DKD/CP - VM/CP - CM/CP	220V AC 50 Hz	SPNC014N220AC	-	-	4

\*Reference (last three positions to be added at the end of the valve code)

\*\* FKM gaskets upon request

Version also available for assembly in "SB/NC" battery



TECHNICAL DATA	
Function	3/2 way
Rated diameter	2.5 mm
Working pressure	0 ÷ 10 bar
Flow rate	200 l/min ( 6 bar Δp 1 bar)
Voltage	24V-110V-220V 40-60 Hz / 24V DC
Maximum absorption	24 VA (AC), 8W (DC)
Protection class	IP65
Air inlet	G1/8"
Cable inlet	PG9 ( 6÷9 mm)
Temperature range	-10 °C ÷ +60 °C
Service	100% ED
Weight	290 g
Material	Body: aluminium/PBTB Gaskets: NBR

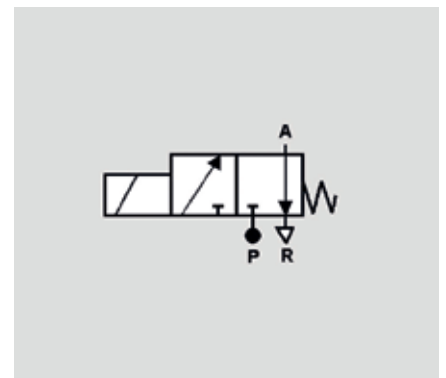
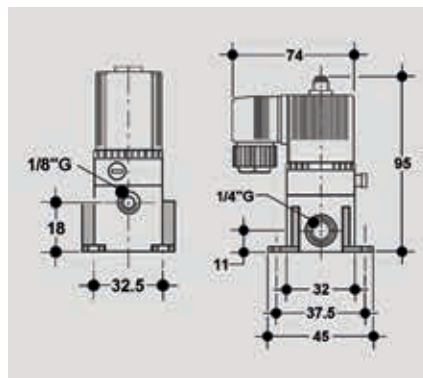
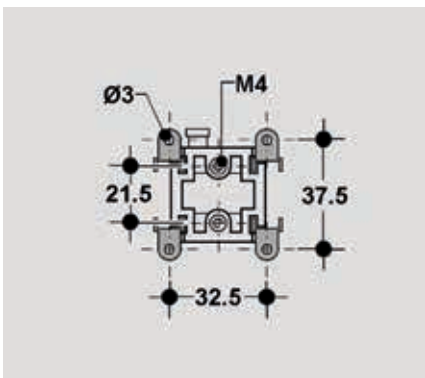
Special versions upon request



## "SB/NC" pilot solenoid valve

3/2 way pilot solenoid valve, for battery assembly, with NBR\*\* normally closed gaskets

For use with valves in series:	Voltage	Code	POS.1*	POS.2*	POS.3*
DK/CP - DKB/CP - DKD/CP - VM/CP - CM/CP	24V DC	SBNC018N024DC	-	-	-
DK/CP - DKB/CP - DKD/CP - VM/CP - CM/CP	24V AC 50 Hz	SBNC018N024AC	-	-	-
DK/CP - DKB/CP - DKD/CP - VM/CP - CM/CP	110V AC 50 Hz	SBNC018N110AC	-	-	-
DK/CP - DKB/CP - DKD/CP - VM/CP - CM/CP	220V AC 50 Hz	SBNC018N220AC	-	-	-



TECHNICAL DATA	
Function	3/2 way
Rated diameter	2.5 mm
Working pressure	0 ÷ 10 bar
Flow rate	200 l/min ( 6 bar Δp 1 bar)
Voltage	24V-110V-220V 40-60 Hz / 24V DC
Maximum absorption	24 VA (AC), 8W (DC)
Protection class	IP65
Air inlet	G1/4"
Air outlet	G1/8"
Cable inlet	PG9 ( 6÷9 mm)
Temperature range	-10 °C ÷ +60 °C
Service	60% ED
Weight	290 g
Material	Body: aluminium/PBTB Gaskets: NBR

Special versions upon request



## "SD/NO" pilot solenoid valve

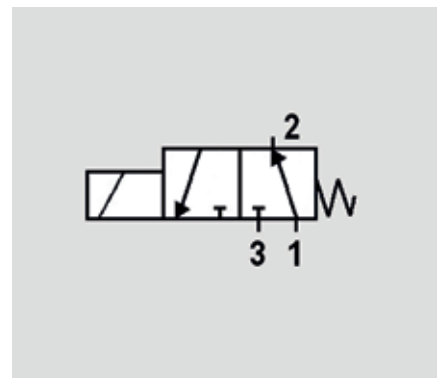
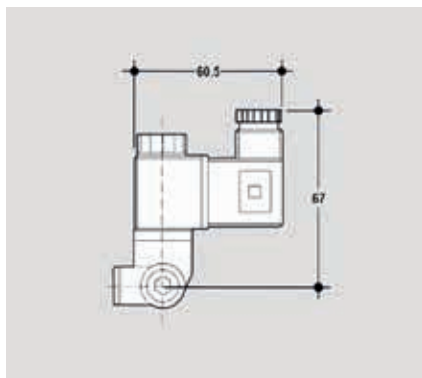
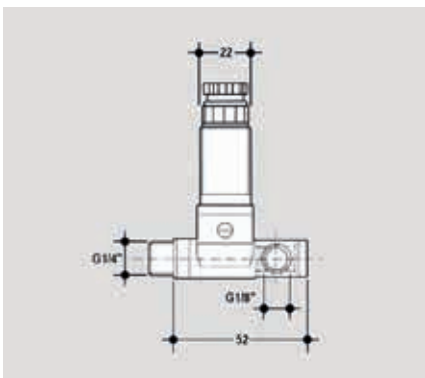
3/2 way pilot solenoid valve, for direct assembly on actuator, with NBR\*\* normally open gaskets

For use with valves in series:	Voltage	Code	POS.1*	POS.2*	POS.3*
DK/CP - DKB/CP - DKD/CP - VM/CP - CM/CP	24V DC	SDNO014N024DC	-	-	5

\*Reference (last three positions to be added at the end of the valve code)

\*\* FKM gaskets upon request

Version also available for assembly in "SM/NO" battery



TECHNICAL DATA	
Function	3/2 way
Rated diameter	1.2 mm
Working pressure	0 ÷ 10 bar
Voltage	24V DC
Maximum absorption	3W
Protection class	IP65
Air inlet	G1/8"
Cable inlet	DIN43650/Type B connector
Temperature range	-10 °C ÷ +55 °C
Material	Body: PA Gaskets: NBR

## NAMUR "2EV" pilot solenoid valve

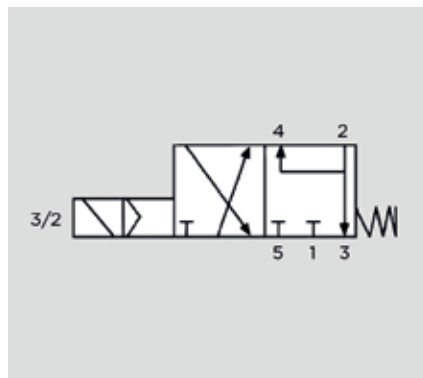
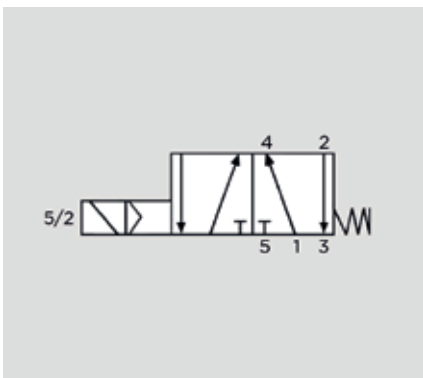
3/2 way pilot solenoid valve, NAMUR for direct assembly on actuator



For use with valves in series:	Voltage	Code	POS.1*	POS.2*	POS.3*
DK/CP	24V DC	2EV024DC	-	-	A
DK/CP	24V AC 50 Hz	2EV024AC	-	-	B
DK/CP	110V AC 50 Hz	2EV110AC	-	-	C
DK/CP	220V AC 50 Hz	2EV220AC	-	-	D

\*Reference (last three positions to be added at the end of the valve code)

\*\* only in combination with NAMUR ZAD2428001 adapter



### TECHNICAL DATA

Function	3/2 way (SA) and 5/2 way (DA)
Voltage	24, 110, 220V AC 50–60 Hz, 24V DC
Max absorption	5.5 VA (AC), 4.8W (DC)
Working pressure	2–10 bar
Air flow	950 l/min
Protection class	IP65
Pneumatic connections	G1/4"
Cable inlet	PG9 (6÷9 mm)
Temperature range	-20° ÷ +50 °C
Service	100% ED
Weight	280g
Material	Body: aluminium Gaskets: NBR

Direct assembly as per VDI/VDE 3845  
Special and ATEX versions upon request

# Abbreviation Legend

<b>ABS</b>	Acrylonitrile butadiene styrene
<b>b</b>	bolts
<b>c</b>	O-Ring code
<b>d</b>	nominal external diameter of the pipe in mm
<b>DA</b>	double-acting
<b>DN</b>	nominal internal diameter of the pipe in mm
<b>EPDM</b>	Ethylene-Propylene-Diene-Monomer
<b>FKM (FPM)</b>	fluoroelastomer
<b>g</b>	weight in grams
<b>HIPVC</b>	PVC high impact
<b>K</b>	lid key
<b>Kg</b>	weight in kilograms
<b>L</b>	length in metres
<b>MRS</b>	minimum guaranteed value of the breaking strength of the material at 20°C - water - for 50 years' service
<b>n</b>	number of flange holes
<b>NBR</b>	nitrile butadiene rubber
<b>OP</b>	working pressure
<b>P</b>	pipe holder
<b>PA</b>	polyamide
<b>PA-GR</b>	fibreglass reinforced polyamide
<b>PBT</b>	polybutylene terephthalate
<b>PE</b>	polyethylene
<b>PN</b>	nominal pressure in bar (max. operating pressure at 20°C water)
<b>POM</b>	polyoxymethylene
<b>PP-GR</b>	fibreglass reinforced polypropylene
<b>PP-H</b>	polypropylene homopolymer

<b>PPS</b>	Polyphenylene sulphide
<b>PPSU</b>	Polyphenylsulfone
<b>PTFE</b>	polyethrafluorethylene
<b>PVC-C</b>	chlorinated polyvinyl chloride
<b>PVC-U</b>	unplasticized polyvinylchloride
<b>PVDF</b>	polyvinylidene difluoride
<b>R</b>	nominal thread size in inches
<b>s</b>	pipe thickness in mm
<b>SA</b>	single-acting
<b>SDR</b>	standard dimension ratio = $d / s$
<b>Sp</b>	flange thickness on flanged valvesa
<b>U</b>	number of flange holes for flanged valves











COD. LEVACTDIA01



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