



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.

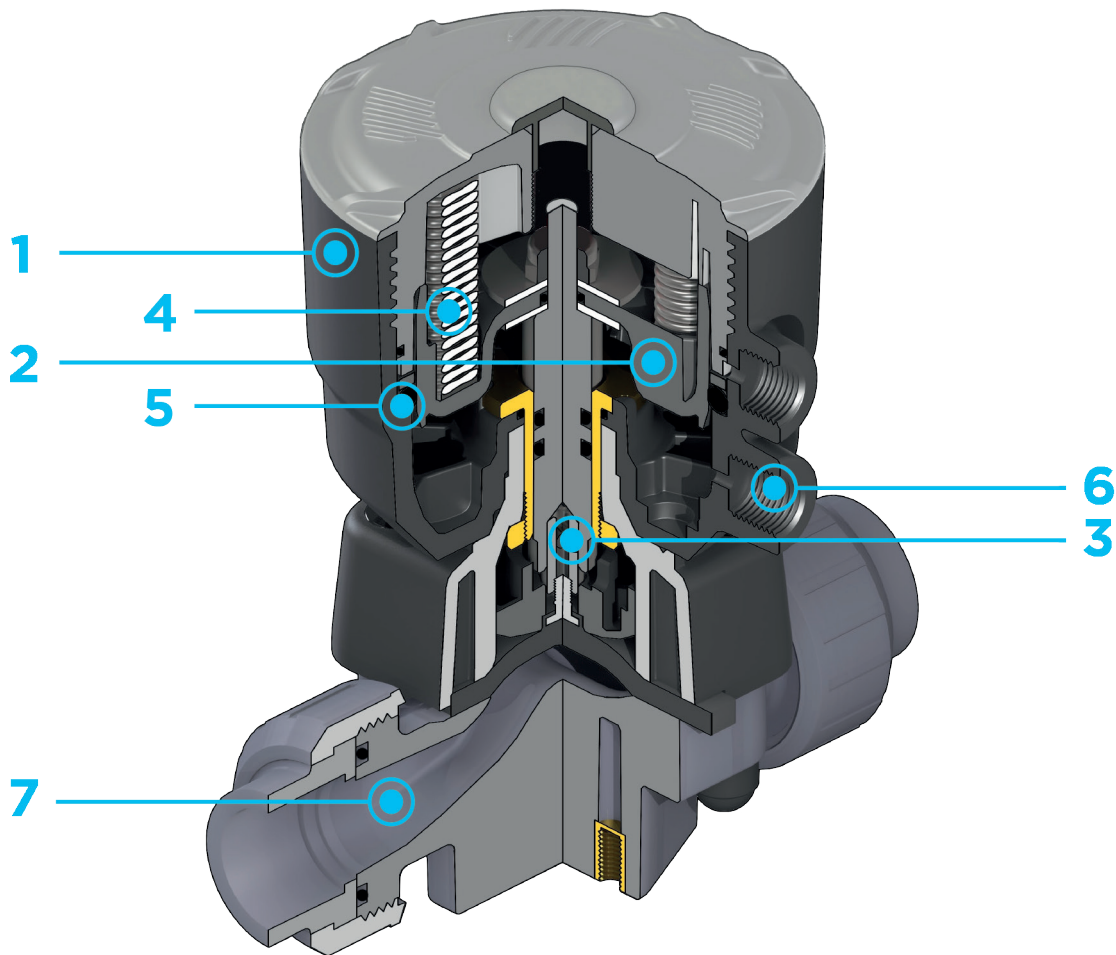
PNEUMATICALLY ACTUATED PN6 2-WAY DIAPHRAGM VALVE FOR LIMITED PRESSURE APPLICATIONS

- 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 | |
|---------------------------------|---|
| Construction | Pneumatically actuated diaphragm valve with body at maximized flow rate |
| Size range | DN 15 ÷ 65 |
| Nominal pressure | PN 6 with water at 20° C |
| Temperature range | PVC-U: 0 °C ÷ 60 °C PVC-C: 0° C ÷ 100° C PP-H: 0° C ÷ 100° C |
| PVC-U coupling standards | Solvent welding: 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 Thread: ISO 228-1, DIN 2999, ASTM D 2464. Flanging system: 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. |
| PVC-C coupling standards | Solvent welding: EN ISO 15493, ASTM F 439. Can be coupled to pipes according to EN ISO 15493, ASTM F 441. Thread: ISO 228-1, DIN 2999. Flanging system: ISO 7005-1, EN ISO 15493, EN 558-1, DIN 2501, ANSI B.16.5 cl.150 |
| PP-H coupling standards | Welding: EN ISO 15494. Can be coupled to pipes according to EN ISO 15494. Thread: ISO 228-1, DIN 2999. Flanging system: ISO 7005-1, EN ISO 1092-1, EN 15494, EN 558-1, DIN 2501, ANSI B16.5 cl.150 |
| Reference standards | PVC-U construction criteria: EN ISO 16138, EN ISO 1452, EN ISO 15493 PVC-C construction criteria: EN ISO 16138, EN ISO 15493 PP-H construction criteria: EN ISO 16138, EN ISO 15494 Test methods and requirements: ISO 9393 PVC-U/PVC-C installation criteria: DVS 2204, DVS 2221, UNI 11242 PP-H installation criteria: DVS 2202-1, DVS 2207-11, DVS 2208-1, UNI 11318 |
| Valve material | PVC-U / PVC-C / PP-H |
| Seal material | EPDM |
| Control options | 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 | |
|---|--|
| Construction | Single-acting (NC) pneumatic piston actuator |
| Actuator material | Body and bonnet: PP-GR |
| Control air pressure | Minimum: according to working pressure and actuator function (see graphs) Maximum: 6 bar |
| Power supply | Dry or lubricated filtered compressed air. If using other fluids, contact the FIP service centre |
| Control fluid temperature | Max 40 °C |
| Temperature range | -20 °C ÷ 50 °C |
| Accessories | <ul style="list-style-type: none"> • Pilot solenoid valves 3-5/2 ways for direct or manifold mounting • Distance plate |



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).

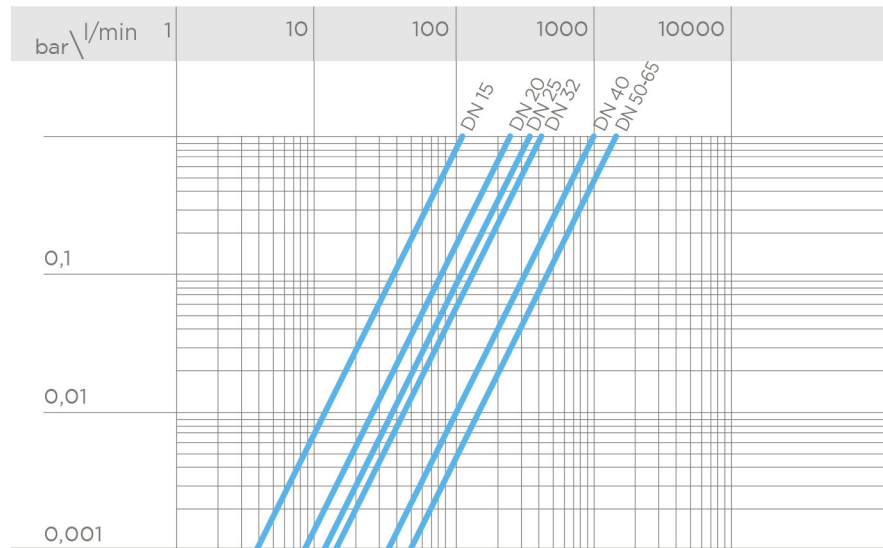


PP-H BODY

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_v100 FLOW COEFFICIENT

The K_v100 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_v100 values shown in the table are calculated with the valve completely open.

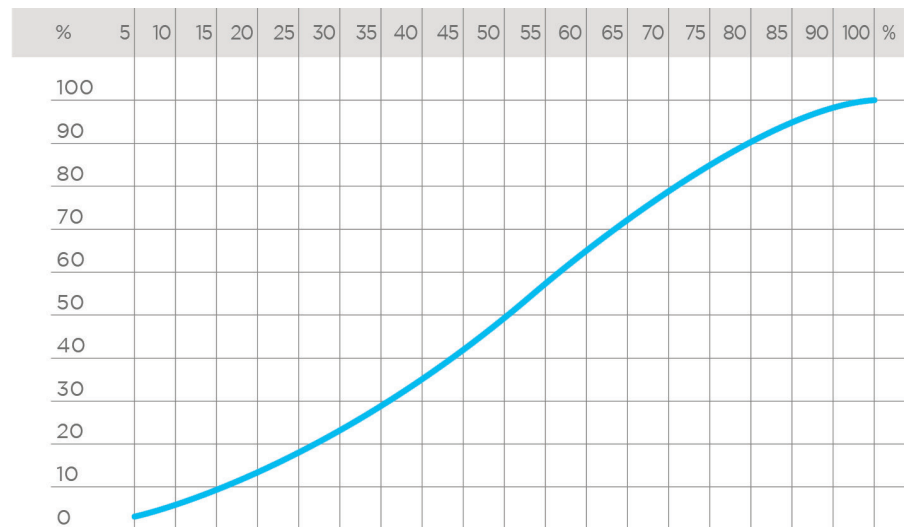
| DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 |
|-------------|-----|-----|-----|-----|------|------|------|
| Kv100 l/min | 112 | 261 | 445 | 550 | 1087 | 1648 | 1600 |

RELATIVE FLOW COEFFICIENT GRAPH

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

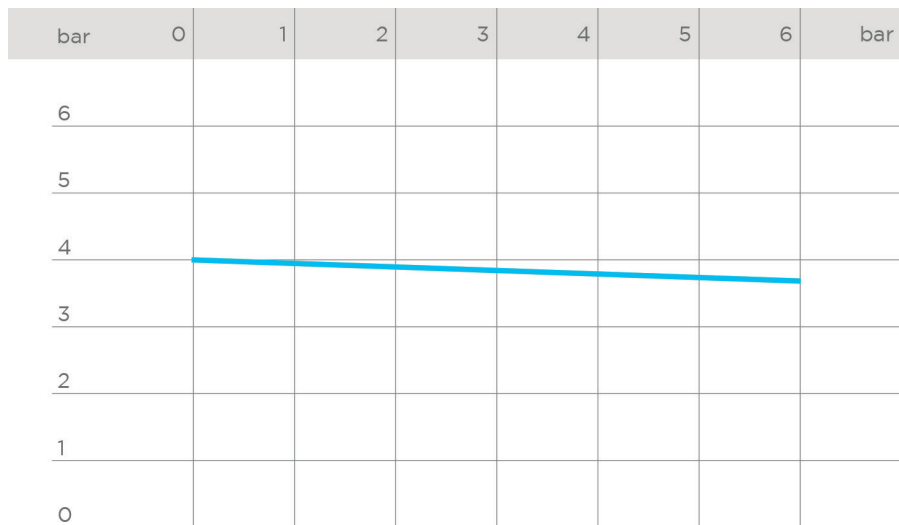
X axis: Opening percentage of the diaphragm

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

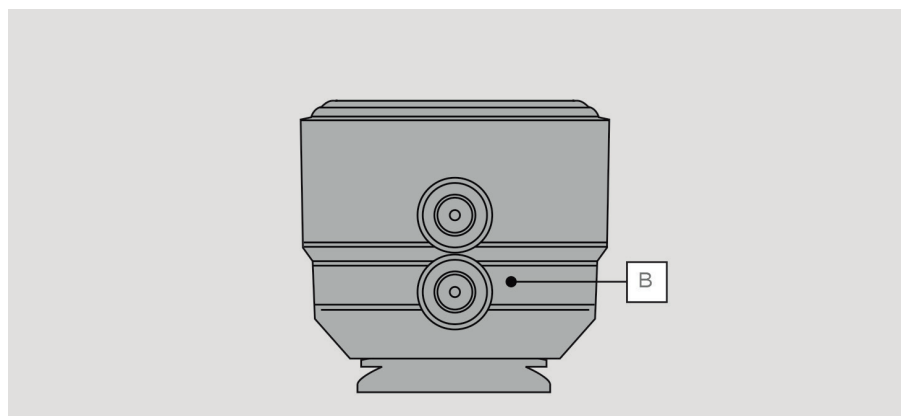
L: litre, equivalent to 10^{-3} m^3

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 |

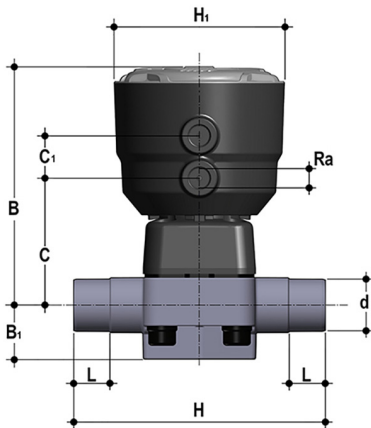
COMPRESSED AIR CONNECTIONS

| | |
|---------------|----------------------|
| Function type | Normally closed (NC) |
| Valve opening | Inlet B |



DIMENSIONS

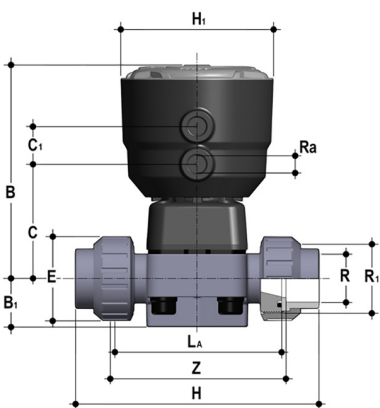
DKB/CP DN 15÷65 PVC-U



DKBDV/CP NC

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

| d | DN | PN | B | B ₁ | C | C ₁ | H | H ₁ | L | R ₀ | 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 |



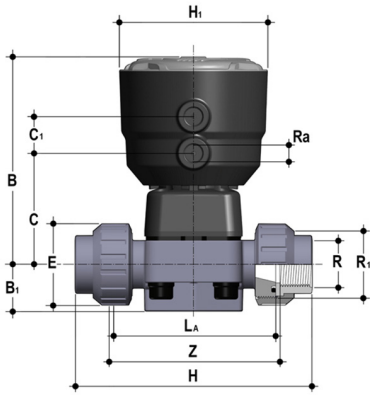
DKBUIV/CP NC

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

| d | DN | PN | B | B ₁ | C | C ₁ | E | H | H ₁ | L ₀ | R ₁ | R ₀ | 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

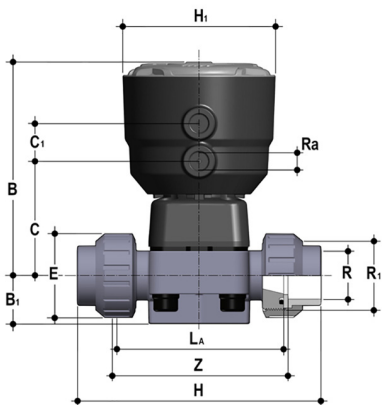
DKB/CP DN 15÷65 PVC-U



DKBUFV/CP NC

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

| R | DN | PN | B | B ₁ | C | C ₁ | E | H | H ₁ | L _o | R ₁ | R _o | 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 |



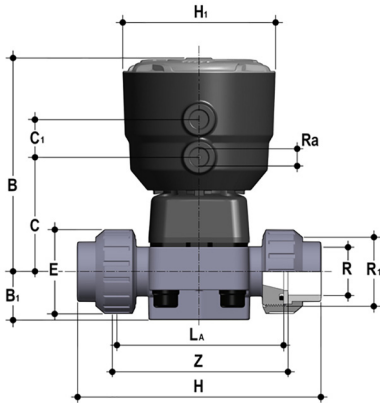
DKBUAV/CP NC

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

| R | DN | PN | B | B ₁ | C | C ₁ | E | H | H ₁ | L _o | R ₁ | R _o | 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

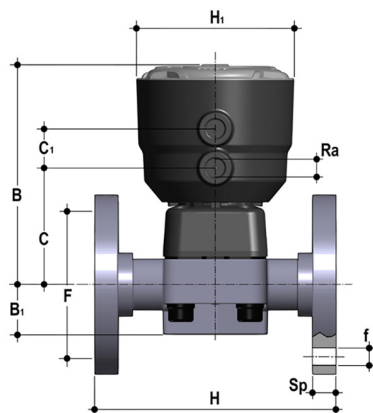
DKB/CP DN 15÷65 PVC-U



DKBULV/CP NC

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

| d | DN | PN | B | B ₁ | C | C ₁ | E | H | H ₁ | L ₂ | R ₁ | R ₂ | 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 |



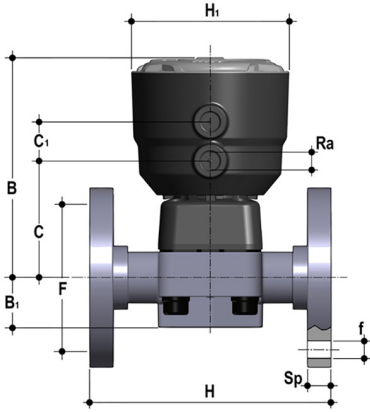
DKBOV/CP NC

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 ₁ | C | C ₁ | F | f | H | H ₁ | R ₂ | 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



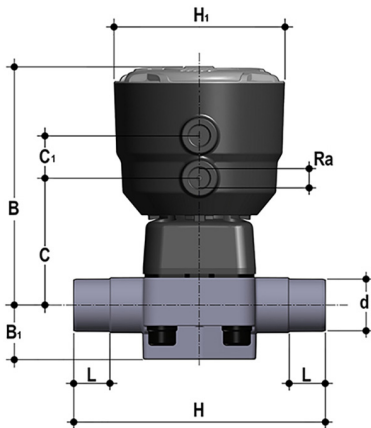
DKBOAV/CP NC

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

| d | DN | PN | B | B ₁ | C | C ₁ | F | f | H | H ₁ | R _a | 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

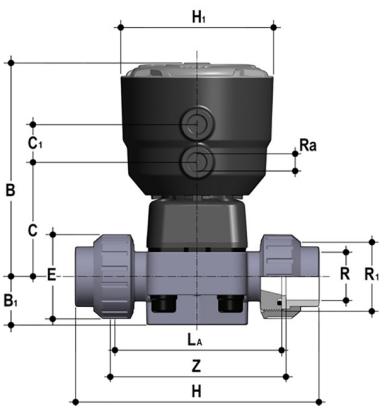
DKB/CP DN 15÷65 PVC-C



DKBDC/CP NC

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

| d | DN | PN | B | B ₁ | C | C ₁ | H | H ₁ | L | R ₀ | 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 |



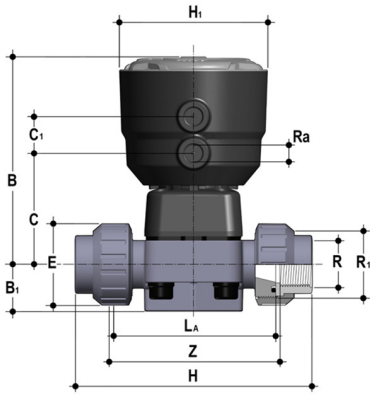
DKBUIC/CP NC

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

| d | DN | PN | B | B ₁ | C | C ₁ | E | H | H ₁ | L ₀ | R ₁ | R ₀ | 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

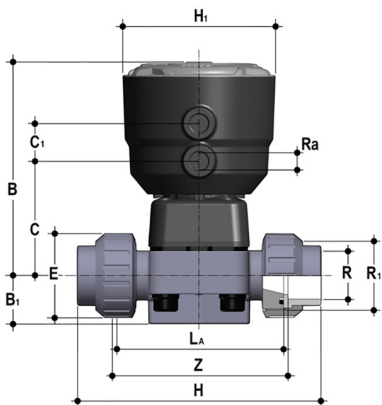
DKB/CP DN 15÷65 PVC-C



DKBUCF/CP NC

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

| R | DN | PN | B | B ₁ | C | C ₁ | E | H | H ₁ | L _o | R ₁ | R _o | Z | g | EPDM Code |
|--------|----|----|-----|----------------|-----|----------------|----|-----|----------------|----------------|----------------|----------------|-----|------|--------------|
| 1/2" | 15 | 6 | 134 | 25 | 66 | 24 | 41 | 131 | 97 | 90 | 1" | 1/4" | 97 | 694 | DKBUCFNC012E |
| 3/4" | 20 | 6 | 137 | 30 | 69 | 24 | 50 | 151 | 97 | 108 | 1 1/4" | 1/4" | 118 | 761 | DKBUCFNC034E |
| 1" | 25 | 6 | 145 | 33 | 78 | 24 | 58 | 165 | 97 | 116 | 1 1/2" | 1/4" | 127 | 997 | DKBUCFNC100E |
| 1 1/4" | 32 | 6 | 149 | 30 | 82 | 24 | 72 | 188 | 97 | 134 | 2" | 1/4" | 145 | 1130 | DKBUCFNC114E |
| 1 1/2" | 40 | 6 | 193 | 35 | 112 | 24 | 79 | 208 | 126 | 154 | 2 1/2" | 1/4" | 165 | 2768 | DKBUCFNC112E |
| 2" | 50 | 6 | 231 | 46 | 142 | 24 | 98 | 246 | 157 | 184 | 2 3/4" | 1/4" | 195 | 6068 | DKBUCFNC200E |



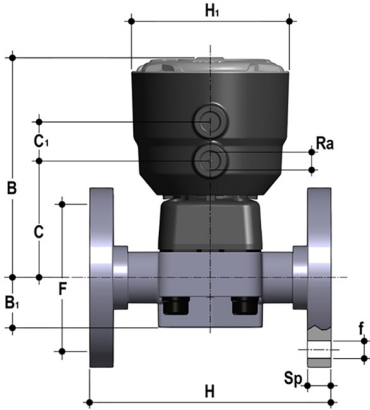
DKBUAC/CP NC

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

| R | DN | PN | B | B ₁ | C | C ₁ | E | H | H ₁ | L _o | R ₁ | R _o | 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

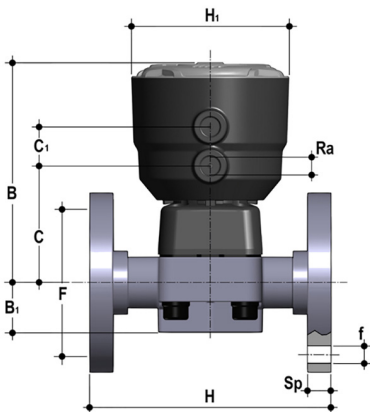
DKB/CP DN 15÷65 PVC-C



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 ₁ | C | C ₁ | F | f | H | H ₁ | R ₃ | 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 |



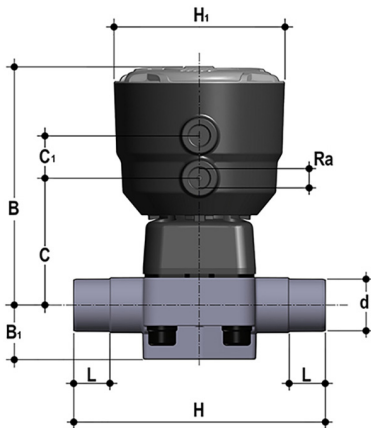
DKBOAC/CP NC

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

| d | DN | PN | B | B ₁ | C | C ₁ | F | f | H | H ₁ | R ₃ | 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

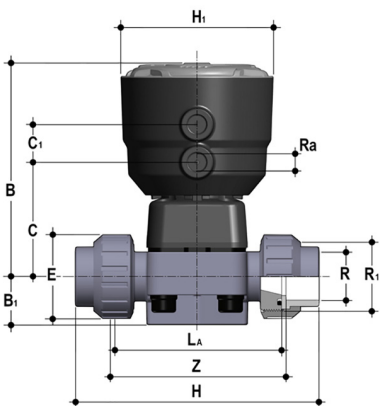
DKB/CP DN 15÷65 PP-H



DKBDM/CP NC

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

| d | DN | PN | B | B ₁ | C | C ₁ | H | H ₁ | L | R ₀ | 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 |



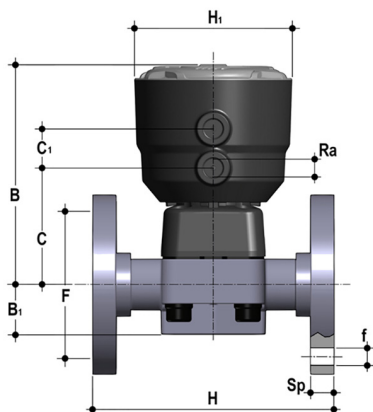
DKBUIM/CP NC

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

| d | DN | PN | B | B ₁ | C | C ₁ | E | H | H ₁ | L ₀ | R ₁ | R ₀ | 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

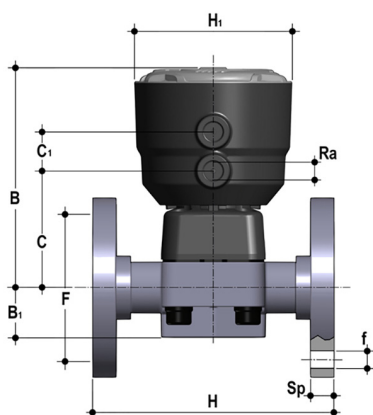
DKB/CP DN 15÷65 PP-H



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 ₁ | C | C ₁ | F | f | H | H ₁ | R ₃ | 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 ₁ | C | C ₁ | F | f | H | H ₁ | R ₃ | 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



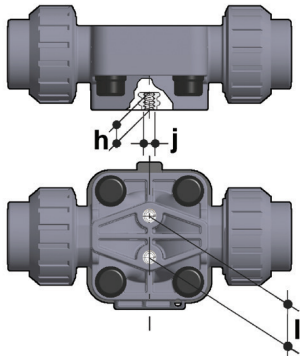
All valves, whether manual or actuated, must be adequately supported in many applications.

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.

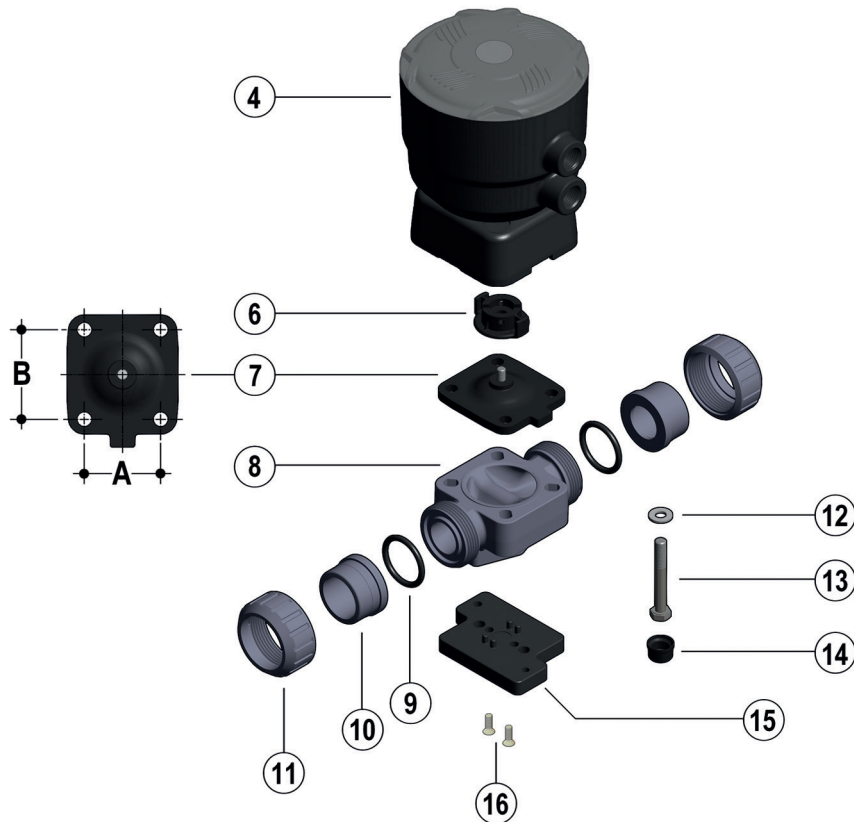
PMDK plates also allow DKB valve alignment with FIP ZIKM pipe clips.

| 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

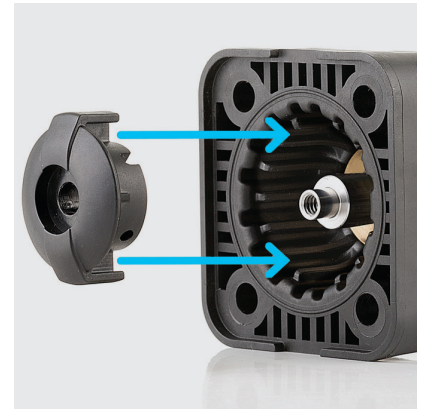


Fig. 4



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.