

PRESSURE CONTROL

Back pressure regulators UV 1.2

Valve for medium to very high flow rates



Technical data

| | |
|---------------------|---------------------------|
| Connection DN | 25 - 200 |
| Nominal pressure PN | 16 - 40 |
| Inlet pressure | 2 - 40 bar |
| K_{vs} value | 6 - 125 m ³ /h |
| Temperature | 300 °C |
| Medium | liquids and gases |
| *RT | -10 °C TO + 50 °C |

Description

Self-acting back pressure regulators are simple control valves offering accurate control while being easy to install and maintain. They control the pressure upstream of the valve without requiring pneumatic or electrical control elements.

The UV 1.2 back pressure regulator is a spring-loaded, seat-controlled proportional control valve balanced by diaphragm, piston or bellows. It is designed for simple control tasks and medium volumes. The valve cone can be fitted with a metallic or soft seal.

The inlet pressure to be controlled is balanced across the valve seat by the force of the valve spring (set pressure). If the inlet pressure rises above the set pressure, the valve opens. With decreasing inlet pressure the valve control orifice reduces, when the pipeline is depressurised, the valve is closed. Rotating the adjusting screw clockwise increases the inlet pressure.

These valves are no shut-off elements ensuring a tight closing of the valve. In accordance with DIN EN 60534-4 and/or ANSI FCI 70-2 they may feature a leakage rate in closed position in compliance with the leakage classes III or V.

Options

- » For toxic or hazardous media: sealed bonnet complete with leakage line connection (incl. sealed adjusting screw). Must be installed with a leakage line capable of draining leaking medium safely and without pressure
- » Various diaphragm and seal materials suitable for your medium
- » Special versions on request

Product



Picture similar

Technical specification

K_{vs} values [m³/h]

| seat | nominal diameter | | | | |
|------|------------------|----|----|----|----|
| | 25 | 32 | 40 | 50 | 65 |
| I | 6 | 12 | 15 | 20 | 35 |
| II | - | 6 | 12 | 15 | 20 |
| III | - | - | 6 | 12 | 15 |

K_{vs} values [m³/h]

| seat | nominal diameter | | | | |
|------|------------------|-----|-----|-----|-----|
| | 80 | 100 | 125 | 150 | 200 |
| I | 40 | 50 | 80 | 95 | 125 |
| II | 35 | 40 | 50 | 80 | 95 |
| III | 20 | 35 | 40 | 50 | 80 |

Setting ranges [bar] balanced by diaphragm

| | | |
|-------|-------|--------|
| 2 - 5 | 4 - 8 | 6 - 12 |
|-------|-------|--------|

Setting ranges [bar] balanced by piston

| | | | | | |
|-------|-------|--------|--------|---------|---------|
| 2 - 5 | 4 - 8 | 6 - 12 | 8 - 16 | 10 - 25 | 20 - 35 |
|-------|-------|--------|--------|---------|---------|

Setting ranges [bar] balanced by bellows

| | | | |
|-------|-------|--------|---------|
| 2 - 5 | 4 - 8 | 6 - 12 | 10 - 25 |
|-------|-------|--------|---------|

Materials

| Materials | | | |
|---------------|---|----------------------------|-----------------|
| Temperatur | 80 °C | 130 °C | 300 °C |
| Body | Cast steel optional stainless steel | | |
| Bonnet | Steel welded optional stainless steel | | |
| Spring | Spring steel optional stainless steel | | |
| Metallic seal | Chromium steel optional stainless steel | | |
| Soft seal | NBR | EPDM optional FKM | - |
| Diaphragm | CR | EPDM optional FKM | - |
| O-ring | NBR | EPDM optional FKM oder FXM | - |
| Bellow | Stainless steel | Stainless steel | Stainless steel |

*All materials equal or of higher quality

Dimensions and weights

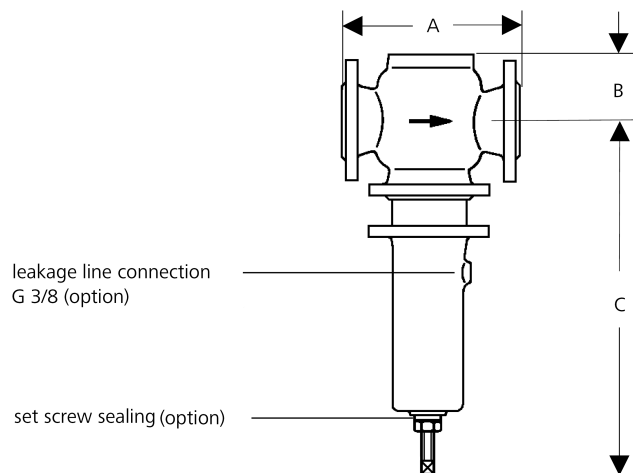
| Dimensions [mm] | | | | | | |
|-----------------|------------------|---------------------|-----|-----|-----|-----|
| size | nominal pressure | nominal diameter DN | | | | |
| | | 25 | 32 | 40 | 50 | 65 |
| A* | PN 16 - 40 | 160 | 180 | 200 | 230 | 290 |
| B | PN 16 - 40 | - | 72 | 72 | 72 | 72 |
| C | PN 16 - 40 | on request | | | | |

| Dimensions [mm] | | | | | | |
|-----------------|------------------|---------------------|-----|-----|-----|-----|
| size | nominal pressure | nominal diameter DN | | | | |
| | | 80 | 100 | 125 | 150 | 200 |
| A* | PN 16 - 40 | 310 | 350 | 400 | 480 | 600 |
| B | PN 16 - 40 | 102 | 102 | 240 | 240 | 270 |
| C | PN 16 - 40 | on request | | | | |

*overall length tolerances in acc. with DIN EN 558

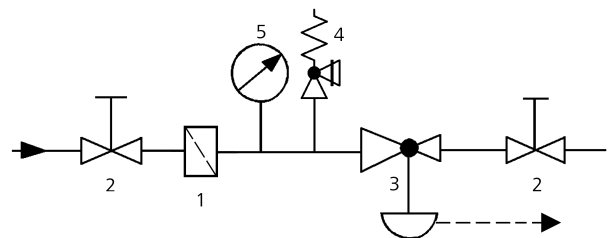
| Weights [kg] | | | | | | | | | | |
|------------------|---------------------|----|----|----|----|----|-----|-----|-----|-----|
| nominal pressure | nominal diameter DN | | | | | | | | | |
| | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 |
| PN 16 | 12 | 17 | 20 | 22 | 32 | 40 | 60 | 100 | 120 | 220 |
| PN 40 | 14 | 20 | 24 | 28 | 42 | 50 | 70 | 115 | 140 | 250 |

| Customs tariff number | |
|-----------------------|--|
| 84814010 | |



Recommended installation

- | | |
|---------------------------|--|
| 1 Strainer | 4 Safety valve |
| 2 Shut-off valves | 5 Pressure gauge |
| 3 Back pressure regulator | 6 Leakage line connection G 3/8 (optional) |



Authorised Distributor:



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Please send us your enquiry and allow us to advise you. Special designs on request.

The pressure has always been indicated as overpressure. Mankenberg reserves the right to alter technical specifications without notice.