482

Pressure reducing valves made of stainless steel with flange connections

→ Series 482















■ MATERIAL





■ SPECIFICATION







DN 20 to DN 80 - 10°C to + 95°C

up to 30 bar Outlet pressure: 0,5 to 15 bar depending on version

■ SUITABLE FOR

Warm water



■ EXAMPLES OF USE

For the protection of:

- domestic water supply systems
- commercial and industrial plants against too high supply pressure.

Pressure reducers are used, if within a piping system despite of varying pressures on the inlet side a certain pressure must not be exceeded on the outlet side.

- potable water supply according to DIN 1988
- process water supply in industrial- and building technology
- fire-fighting equipment and sprinkler systems
- shipbuilding industry and offshore plants
- secondary areas in the food-, pharmaceutical- and cosmeticsindustries.

■ APPROVALS

DIN-DVGW type examination

Type approval ACS

Type approval WRAS

GOST-R

Requirements

DIN DVGW guidelines **DIN EN 1567 DIN 1988** DIN EN ISO 3822 PED 97/23/EC

Classification society

Germanischer Lloyd LR EMEA Lloyd's Register EMEA American Bureau of Shipping ABS Bureau Veritas

■ MATERIALS

| Component | Material | DIN EN | ASME |
|----------------|--|--------|-----------|
| Inlet body | Stainless steel | 1.4408 | CF8M |
| Outlet body | Stainless steel | 1.4408 | CF8M |
| Internal parts | Stainless steel | 1.4408 | CF8M |
| | Stainless steel | 1.4404 | 316 L |
| Spring | Spring steel with anti-rust protection | 1.1200 | ASTM A228 |
| Strainer | Stainless steel | 1.4301 | 304 |



■ VALVE VERSION

m with diaphragm

High-quality, heat-resistant moulded elastomere, fabric-reinforced diaphragm. Pressure adjustment by means of non-rising spindle.

Valve insert with balanced single seat valve completely made of stainless steel.

Complete valve cartridge SP/HP (order code: 482 Insert-DN..-seal) available as replacement part can be exchanged without removing the valve.

Complete valve cartridge LP (order code: 482 LP Insert-DN..-seal) available as replacement part can be exchanged without removing the valve.

Built-in dirt trap made of stainless steel.

Mesh size:

DN 20 to DN 32 DN 40 to DN 80

0,75 mm

■ MEDIUM

GF

gaseous and liquid

for water and distilled water, neutral and non-sticking liquids, compressed air and neutral gases; optionally with FPM elastomere seals for non-neutral media i.e. oils, fuels, oil-laden compressed air etc.

■ TYPE OF LIFTING MECHANISM

0

without lifting device

■ OUTLET PRESSURE RANGES

| SP | Standard version | Inlet pressure: up to 25 bar | Outlet pressure: from 1 to 8 bar (DVGW 6 bar) | | | | | |
|----|---|------------------------------|---|--|--|--|--|--|
| НР | High-pressure version (not for DN 65 and DN 80) | Inlet pressure: up to 30 bar | Outlet pressure: from 5 to 15 bar | | | | | |
| LP | Low-pressure version (not for DN 65 and DN 80) | Inlet pressure: up to 25 bar | Outlet pressure: from 0,5 to 2 bar | | | | | |

Fixed setting at a required outlet pressure against surcharge.

■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

| Nominal diameter DN | 20 | 25 | 32 | 40 | 50 | 65 | 80 |
|---------------------|-------|-------|-------|-------|-------|-------|-------|
| Inlet / Outlet | 20/20 | 25/25 | 32/32 | 40/40 | 50/50 | 65/65 | 80/80 |
| | | | | | | | |

■ TYPE OF CONNECTION INLET / OUTLET FLANGE CONNECTIONS

FL/FL Standard Flange connection / flange connection DIN EN 1092 / DIN EN 1092

■ SEALS

| EPDM | Ethylene propylene diene | Elastomere moulded diaphragm and seals approvals according to drinking water directive | −10°C to +95°C |
|-------------------|--------------------------|--|----------------|
| Against surcharge | | | |
| FKM | Fluorocarbon | Elastomere moulded diaphragm and seals | -10°C to +95°C |

■ OPTIONS

| Against surcharge | _ | | | | | | |
|-------------------|----|-----|-----|------|-----|-----|---|
| | Αa | air | ıst | SIII | cha | ara | e |

Pressure gauges 33, 34, 35, 36, 39 and 40 Chapter Accessories

Pressure gauge 37, 38, 41, 42 or 43 made of stainless steel Chapter Accessories

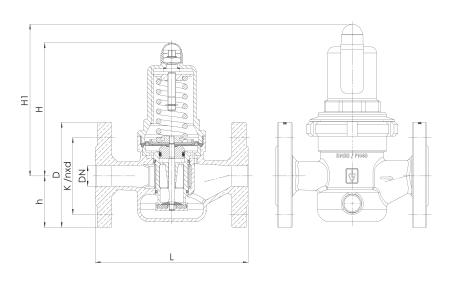


■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

| Series 482: Connection, installation dimensions, ranges of adjustment | | | | | | | | | |
|---|--------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|--------------|--------------|--------------|
| Connection | | DN20 PN40 | DN25 PN40 | DN32 PN40 | DN40 PN40 | DN50 PN40 | DN65 PN16 | DN65 PN40 | DN80 PN40 |
| Inlet pressure SP, LP up to | bar | 25 | 25 | 25 | 25 | 25 | 16 | 25 | 25 |
| Inlet pressure HP up to | bar | 30 | 30 | 30 | 30 | 30 | | | |
| Outlet pressure | bar | 0,5 - 2 1 - 8 5 - 15 | 0,5 – 2 1 – 8 5 – 15 | 0,5 - 2 1 - 8 5 - 15 | 0,5 - 2 1 - 8 5 - 15 | 0,5 – 2 1 – 8 5 – 15 | 1 – 8 | 1 – 8 | 1 – 8 |
| Installation dimensions | D | 105 | 115 | 140 | 150 | 165 | 185 | 185 | 200 |
| in mm | L | 150 | 160 | 180 | 200 | 230 | 290 | 290 | 310 |
| | H (H1) | 130 (150¹) | 130 (150¹) | 130 (150¹) | 165 (185¹) | 165 (185¹) | 235 | 235 | 235 |
| | h | 50 | 55 | 68 | 73 | 80 | 89 | 89 | 96 |
| | K/nxd | 75 / 4xM12 | 85 / 4xM12 | 100 / 4xM16 | 110 / 4xM16 | 125 / 4xM16 | 145 / 4xM16 | 145 / 8xM16 | 160 / 8xM16 |
| Weight | kg | 3,9 (4,31) | 4,3 (4,7 ¹) | 5,5 (5,9 ¹) | 8,4 (9,11) | 10,2 (10,9¹) | 18,7 | 19 | 20,5 |
| Kv value | m³/h | 4,5-5,0 | 6,2-7,8 | 8,7 – 9,6 | 12,0 - 14,0 | 14,5 – 19,0 | 30,0 - 47,0 | 30,0 – 47,0 | 44,0-60,0 |
| Max. capacity (water) | m³/h | 10 | 16 | 18 | 30 | 35 | 60 | 60 | 68 |

¹for type 482mGFO-LP

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



■ INDIVIDUAL SELECTION / VALVE CONFIGURATION

| Series | Valve version | Medium | Lifting device | Outlet pressure | Nominal diameter | Connec | tion type | Connec | tion size | Seal | Options | Optional: | Quantity |
|--------|------------------|--------|-------------------|-----------------|---------------------|--------|-----------|--------|-----------|------|-------------------------|-----------|----------|
| | 70101011 | | 401100 | production | DN | Inlet | Outlet | Inlet | Outlet | | | 3 | |
| 482 | m | GF | 0 | SP | 65 | FL | FL | 65 | 65 | EPDM | PN16 | | 5 |
| 482 | m | GF | 0 | LP | 40 | FL | FL | 40 | 40 | FKM | Pressure Gauge 43 | 1,5 | 2 |
| 482 | m | GF | 0 | | | FL | FL | | | | | | |
| 482 | m | GF | 0 | | | FL | FL | | | | | | |

In this table you can configure a valve according to your individual requirements (similar to the *example* shown, which should be deleted before you enter your own data). Please complete the table by hand using the abbreviations in this datasheet and then fax it to: +49(0)7141.4889488 Please do not forget to add your personal data so that our sales team can contact you.

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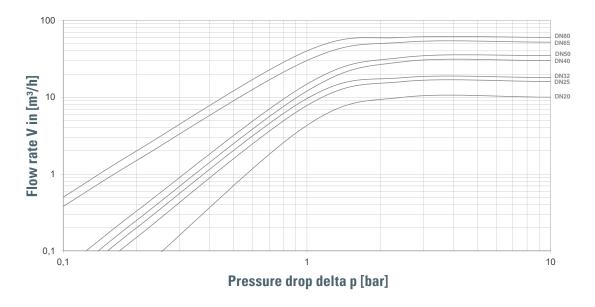


■ CAPACITY CHARTS

Series 482:

Dimensioning by pressure loss on the outlet pressure side

Flow chart water



Dimensioning by flow velocity

For Liquids:

With \hat{N} help of the chart you can determine the nominal diameter (DN) for a given flow volume V (m^3/h). According to DVGW-guidelines (DIN 1988) a flow velocity of 2 m/s in domestic water supply systems should not be exceeded.

For compressed air and other gaseous media:

The usual flow velocity for compressed air is 10 - 20 m/s. For gaseous media the flow volume V should always be shown in actual cubic meters/hour. If the flow volume is given in standard cubic meters, these should be converted into actual cubic meters before using the diagram.

$$V\left(m^{3}/h\right) = \frac{V_{Norm}\left(Nm^{3}/h\right)}{p_{absolut}\left(bar\right)} = \frac{V_{Norm}}{p_{0}+1}$$

Actual cubic meters are based on the prevailing pressure of the medium on the outlet side of the pressure reducer.

