



Braukmann D05FT

Pressure reducing valve with balanced seat

Hot water pattern with setting scale

APPLICATION

According EN 806-2 pressure reducing valves of this type protect household water installations against excessive pressure from the supply. They can also be used for industrial or commercial applications within the range of their specification.

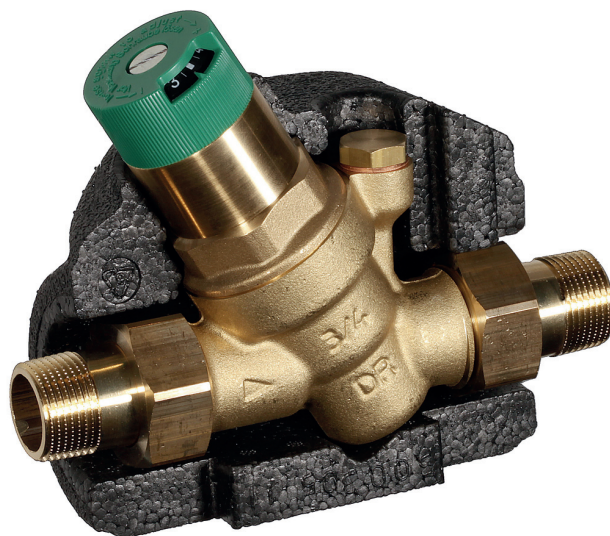
By installing a pressure reducing valve, pressurisation damage is avoided and water consumption is reduced.

The set pressure is also maintained constant, even when there is wide inlet pressure fluctuation.

Reduction of the operating pressure and maintaining it at a constant level minimizes flow noise in the installation.

SPECIAL FEATURES

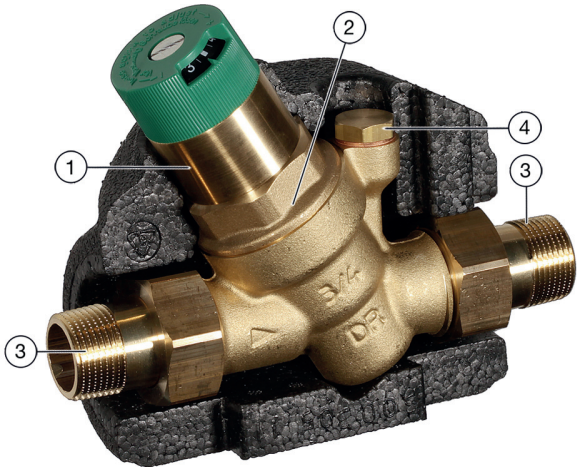
- Suitable for hot water systems
- Inlet pressure balancing – no influence on outlet pressure by fluctuating inlet pressure
- The valve insert is made of dezincification resistant brass and can be fully exchanged
- The outlet pressure is set by turning the adjustment knob
- The set pressure is directly indicated on the set point scale
- The adjustment spring is not in contact with the drinking water
- With internal and external threads $\frac{1}{2}$ " - 1", with external threads $1 \frac{1}{4}$ " - 2"
- Also available without fittings



TECHNICAL DATA

| Media | |
|--|----------------------|
| Medium: | Drinking water |
| Connections/Sizes | |
| Connection sizes: | $\frac{1}{2}$ " - 2" |
| Nominal sizes: | DN15 - DN50 |
| Pressure values | |
| Max. inlet pressure: | 16 bar |
| Outlet pressure: | 1.5 - 6 bar |
| Preset outlet pressure: | 3 bar |
| Min. pressure drop: | 1 bar |
| Operating temperatures | |
| Max. operating temperature medium accord. to EN 1567 for warm water: | 80 °C |
| Max. operating temperature medium (short-term, soft water only): | 95 °C |

CONSTRUCTION

| Overview | Components | Materials |
|---|--|---|
|  | 1 Spring bonnet with adjustment knob and setting scale | Brass, High-quality synthetic material |
| | 2 Housing with pressure gauge connection | Dezincification-resistant brass |
| | 3 Threaded male connections (option A) | Brass |
| | 4 Pressure gauge connection | |
| | Not depicted components: | |
| | Piston and spindle | Stainless steel |
| | Adjustment spring | Spring steel |
| | Valve insert complete with diaphragm and valve seat | Dezincification-resistant brass, EPDM diaphragm |
| | Pressure gauge (see accessories) | High-quality synthetic material |
| | Seals | EPDM |

METHOD OF OPERATION

Spring loaded pressure reducing valves operate by means of a force equalising system. The force of a diaphragm operates against the force of an adjustment spring. If the outlet pressure and therefore diaphragm force fall because water is drawn, the then greater force of the spring causes the valve to open. The outlet pressure then increases until the forces between the diaphragm and the spring are equal again.

The inlet pressure has no influence in either opening or closing of the valve. Because of this, inlet pressure fluctuation does not influence the outlet pressure, thus providing inlet pressure balancing.

TRANSPORTATION AND STORAGE

Keep parts in their original packaging and unpack them shortly before use.

The following parameters apply during transportation and storage:

| Parameter | Value |
|---------------------------------|--------------------------|
| Environment: | clean, dry and dust free |
| Min. ambient temperature: | 5 °C |
| Max. ambient temperature: | 55 °C |
| Min. ambient relative humidity: | 25 % * |
| Max. ambient relative humidity: | 85 % * |

*non condensing

INSTALLATION GUIDELINES

Setup requirements

- Horizontal and vertical installation position possible
 - In vertical installation position spring bonnet with adjustment knob facing upwards
- Install shut-off valves
- The installation location should be protected against frost and be easily accessible
 - Pressure gauge can be read off easily
 - Simplified maintenance and cleaning
- To guarantee perfect functioning, a filter must be inserted ahead of the pressure reducing valve
- Provide a straight section of pipework of at least five times the nominal valve size after the pressure reducing valve (in accordance with EN 806-2)
- Requires regular maintenance in accordance with EN 806-5

Installation Example

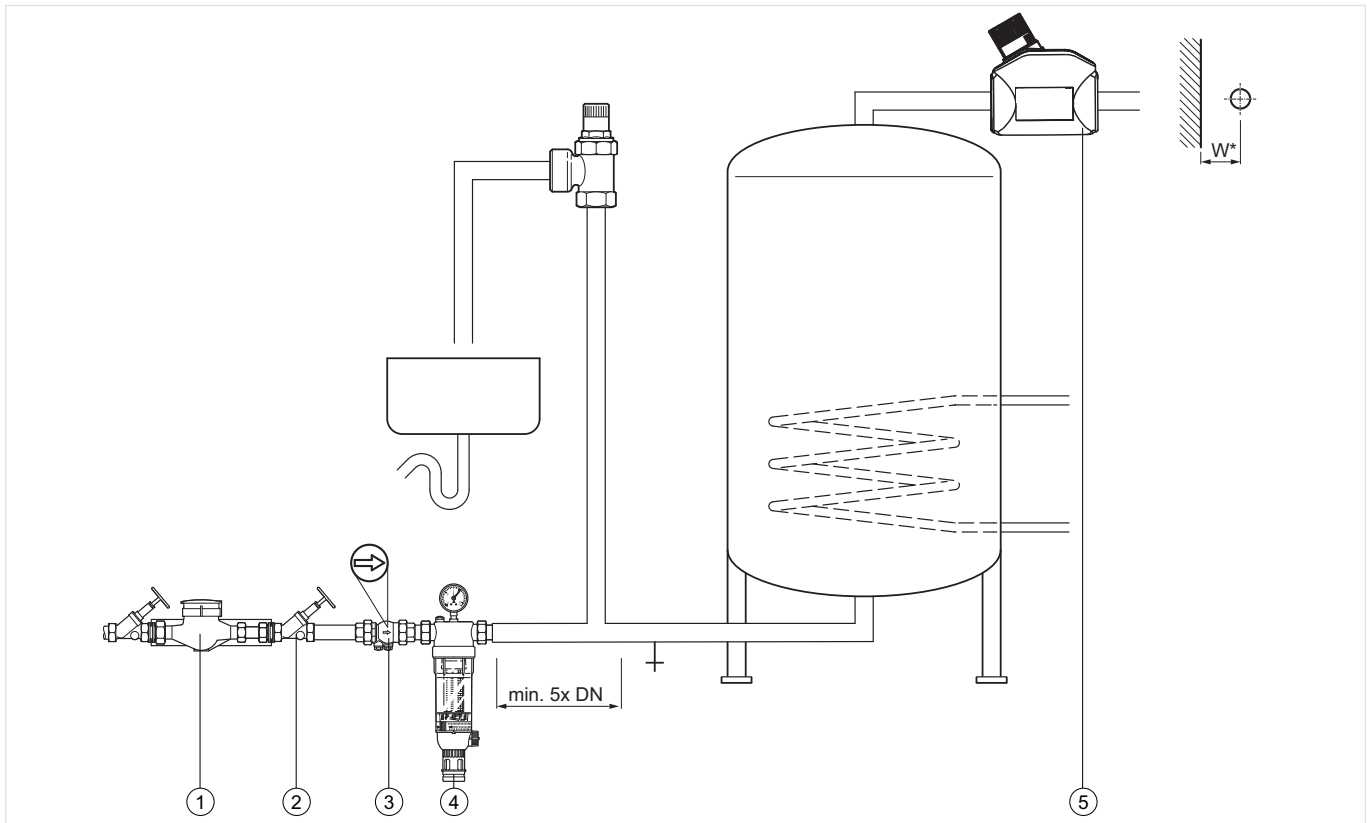


Fig. 1 Standard installation example for the pressure reducing valve

- 1 Water meter
- 2 Shut-off valve
- 3 Check valve
- 4 Filtering unit
- 5 Pressure reducing valve

| Connection sizes: | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" |
|----------------------|------|------|----|--------|--------|----|
| Distance in mm (W*): | 55 | 55 | 60 | 60 | 70 | 70 |

* Required installation distances between the centerline of the pipework and the surrounding in dependency of the connection size.

TECHNICAL CHARACTERISTICS

kvs-Values

| Connection sizes: | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" |
|---|---------------|------|-----|--------|--------|-----|
| k _{VS} -value (m ³ /h): | 3.0 | 3.5 | 3.7 | 7.3 | 7.5 | 7.7 |
| lFBt designation: | P-IX 9290/II | | | | | |
| DIN/DVGW Registration No.: | NW-6331CL0252 | | | | | |

* Compulsory testing in sizes R 1/2" to R 2"

Pressure drop characteristics

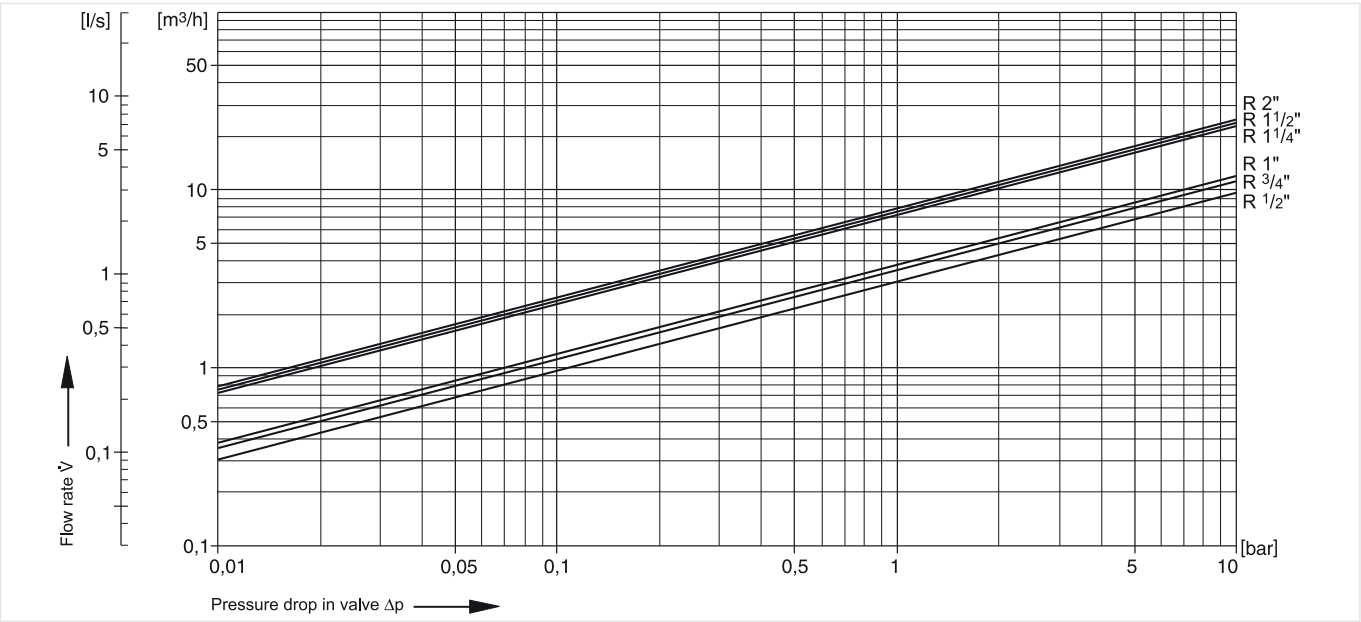
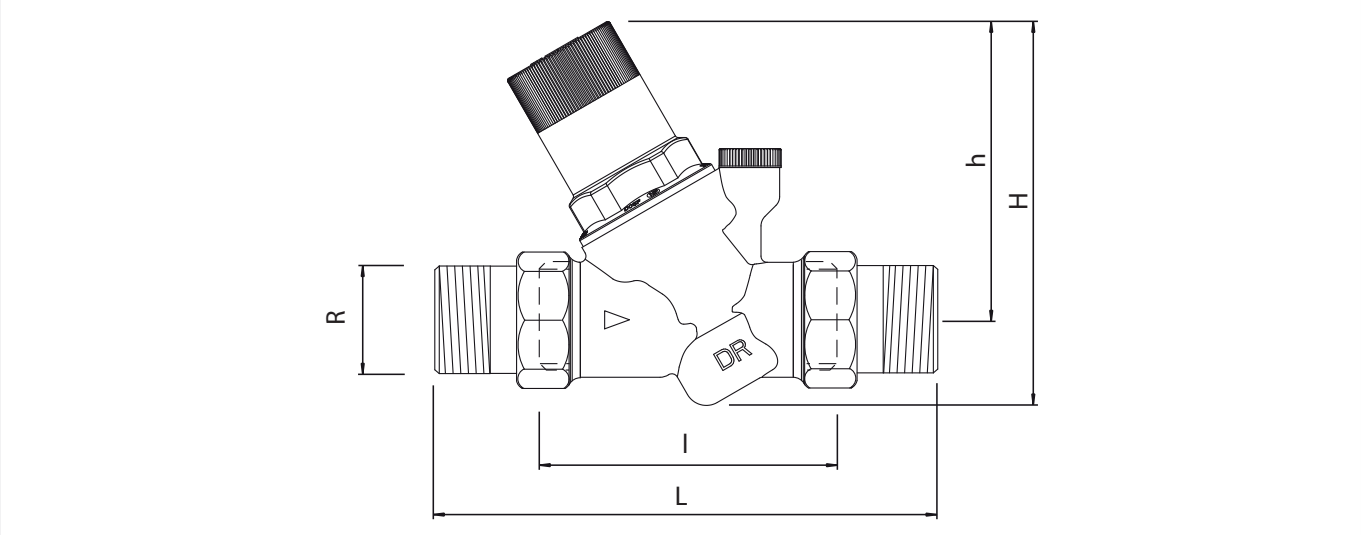


Fig. 2 Pressure drop within the valve in dependency of the flow rate and the used connection size

DIMENSIONS

Overview



| Parameter | | Values | | | | | |
|------------------------|----|--------|------|-----|--------|--------|-----|
| Connection sizes: | R | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" |
| Nominal size diameter: | DN | 15 | 20 | 25 | 32 | 40 | 50 |
| Weight: | kg | 0.9 | 1.0 | 1.6 | 3.0 | 3.8 | 5.2 |
| Dimensions: | L | 155 | 163 | 176 | 207 | 216 | 257 |
| | I | 95 | 95 | 97 | 115 | 120.5 | 140 |
| | H | 123 | 123 | 124 | 178 | 181 | 178 |
| | h | 96 | 96 | 96 | 147 | 147 | 147 |

Note: All dimensions in mm unless stated otherwise.

ORDERING INFORMATION

The following tables contain all the information you need to make an order of an item of your choice. When ordering, please always state the type, the ordering or the part number.

Options

The valve is available in the following sizes: 1/2", 3/4", 1", 1 1/4", 1 1/2" and 2".




- standard
- not available

| | | D05FT-...A | D05FT-...E |
|------------------|--|------------|------------|
| Connection type: | external threaded connection set on in- and outlet | • | – |
| | external thread on in- and outlet | – | • |

Note: ... = space holder for connection size

Note: Ordering number example for 1 1/4" and type A valve: D05FT-11/4A

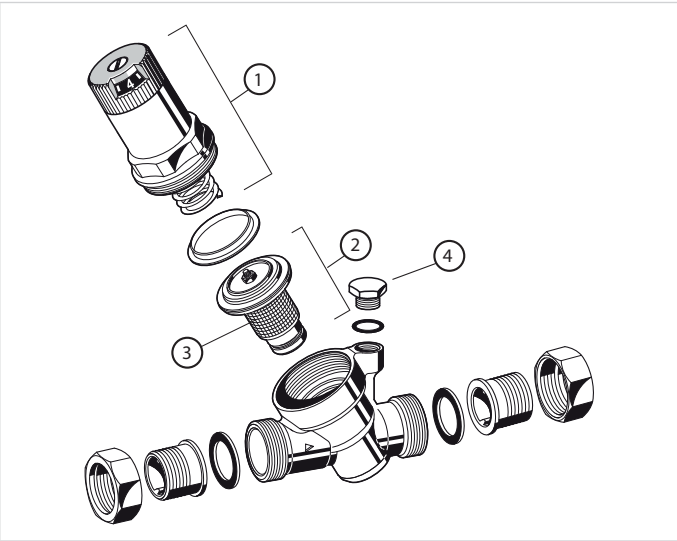
Accessories

| | Description | Dimension | Part No. |
|---|---|-----------|-------------|
|  | M38T-A10 Pressure gauge Housing Ø 50 mm, below connection thread G 1/4" | | |
| | Range: 0 - 10 bar | | M38T-A10 |
|  | DS05 Insulation shells | 1/2" | DS05-1/2 |
| | | 3/4" | DS05-3/4 |
| | | 1" | DS05-1 |
| | | 1 1/4" | DS05-11/4 |
| | | 1 1/2" | DS05-11/2 |
| | | 2" | DS05-2 |
|  | ZR06K Double ring wrench For removal of spring bonnet and filter bowl | | |
| | | | ZR06K |
|  | VST06A Connection set Threaded connections | 1/2" | VST06-1/2A |
| | | 3/4" | VST06-3/4A |
| | | 1" | VST06-1A |
| | | 1 1/4" | VST06-11/4A |
| | | 1 1/2" | VST06-11/2A |
| | | 2" | VST06-2A |
|  | VST06B Connection set Solder connections | 1/2" | VST06-1/2B |
| | | 3/4" | VST06-3/4B |
| | | 1" | VST06-1B |
| | | 1 1/4" | VST06-11/4B |
| | | 1 1/2" | VST06-11/2B |
| | | 2" | VST06-2B |

Spare Parts

Pressure Reducing Valve D05FT, from 2010 onwards

Overview



| | Description | Dimension | Part No. |
|---|--|--------------|-------------|
| 1 | Spring bonnet complete | | |
| | | 1/2" - 1 " | 0903919 |
| | | 1 1/4" - 2" | 0903920 |
| 2 | Valve insert complete | | |
| | | 1/2" - 1 " | D05FA-1/2T |
| | | 1 1/4" - 2" | D05FA-11/4T |
| 3 | Replacement filter insert | | |
| | | 1/2" - 1 " | ES05F-1/2A |
| | | 1 1/4" - 2 " | ESD05FS |
| 4 | Hexagon-plug with copper sealing-ring R1/4" (5 pcs.) | | |
| | | 1/2" - 2" | SO6M-1/4 |



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