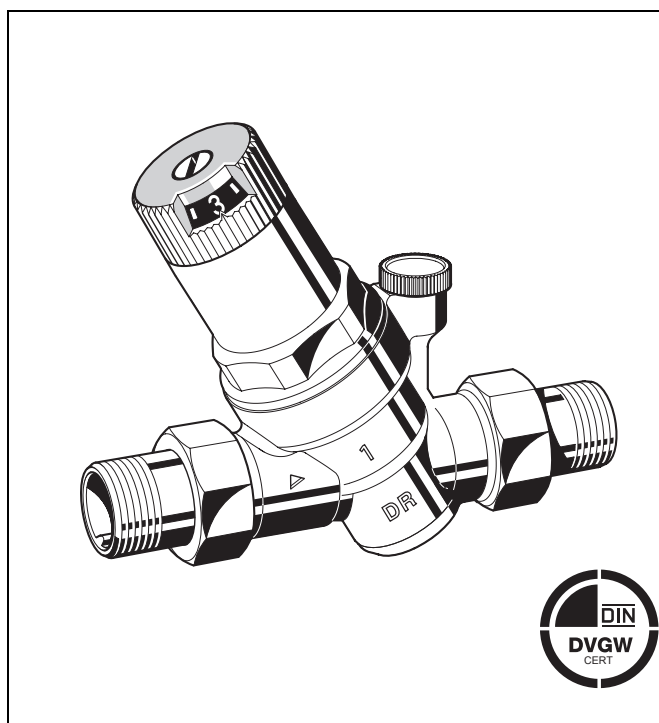


## D05FS

### Pressure reducing valve with balanced seat Standard pattern with setting scale

#### Product specification sheet



#### Construction

The pressure reducing valve comprises:

- Housing with pressure gauge connection G1/4"
- With internal and external threads 1/2" - 1"
- With external threads 1 1/4" - 2"
- Valve insert complete with diaphragm and valve seat
- Spring bonnet with adjustment knob and setting scale
- Adjustment spring
- Pressure gauge not included (see accessories)

#### Materials

- Dezincification resistant brass housing
- High-quality synthetic material valve insert
- High-quality synthetic material spring bonnet with adjustment knob and setting scale
- Spring steel adjustment spring
- Fibre-reinforced NBR diaphragm
- NBR and EPDM seals

#### Application

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

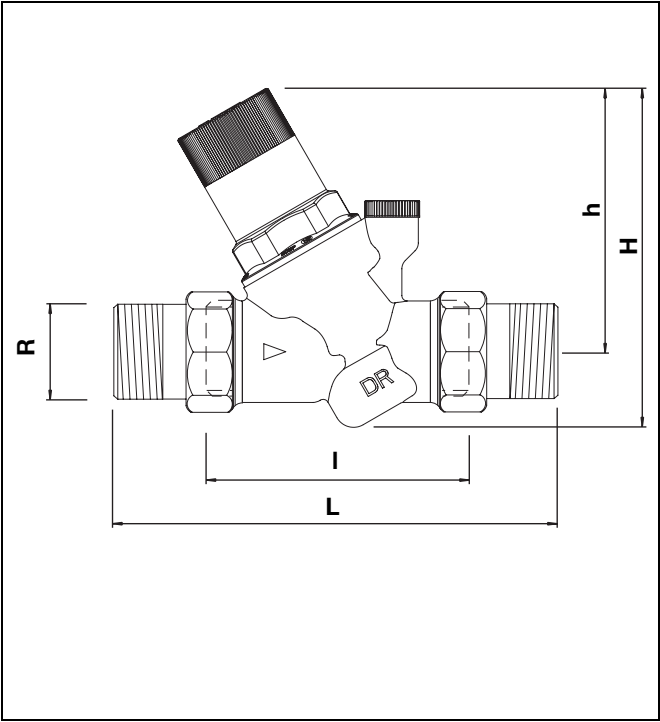
- DIN/DVGW-certified
- WRAS approved according to BSEN1567
- The outlet pressure is set by turning the adjustment knob
- The set pressure is directly indicated on the set point scale
- The adjustment spring is not in contact with the potable water
- The valve insert is of high quality synthetic material and can be fully exchanged
- Also available without fittings
- Inlet pressure balancing - fluctuating inlet pressure does not influence outlet pressure
- Light weight

#### Range of Application

Medium	Water
Inlet pressure	max. 25 bar
Outlet pressure	1.5-6 bar (preset to 3 bar)

#### Technical Data

Installation position	Horizontal and vertical installation position possible In vertical installation position spring bonnet with adjustment knob facing upwards
Operating temperature	max. 40°C accord. to DIN EN 1567 max. 70°C (max. operating pressure 10 bar)
Minimum pressure drop	1 bar
Connection size	1/2" - 2"



Method of Operation

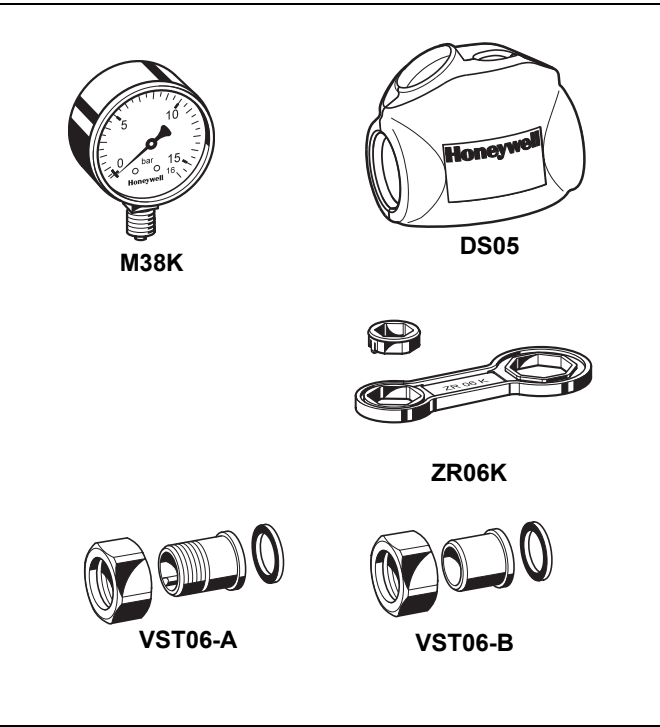
Spring loaded pressure reducing valves operate by means of a force equalising system. The force of a diaphragm operates against the force of an adjustment spring. If the outlet pressure and therefore diaphragm force fall because water is drawn, the then greater force of the spring causes the valve to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

Options

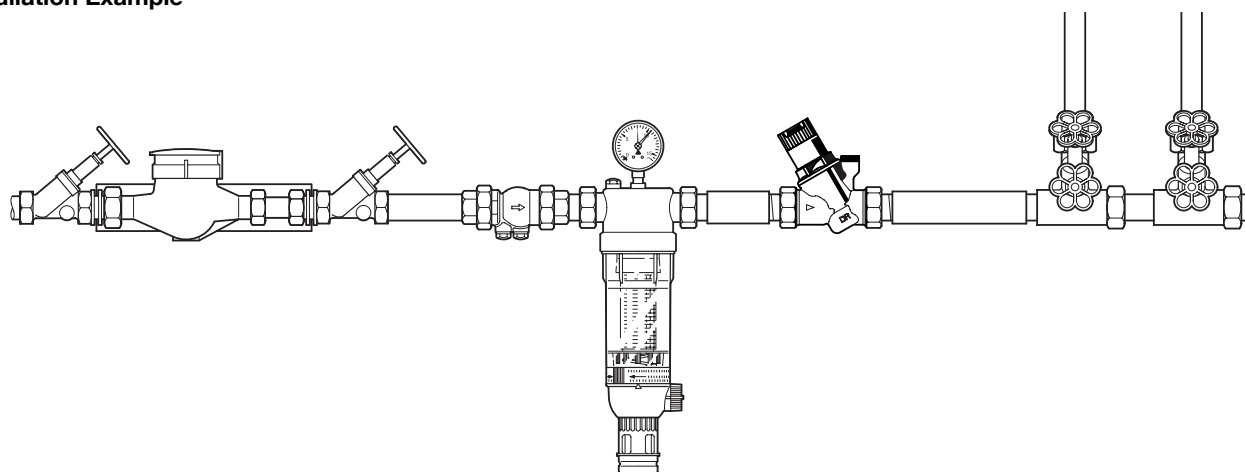
D05FS-... A = External threaded connection set on in- and outlet  
D05FS-... E = External thread on in- and outlet  
Connection size

Connection size	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	0.65	0.82	1.35	2.20	3.09	4.46
Dimensions	mm						
	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
Kvs-value		3.0	3.5	3.7	7.3	7.5	7.7
DIN/DVGW Registration No.		NW-6330 BN 0584					



Accessories

- M38K Pressure gauge**  
Housing diameter 50 mm, below connection thread G1/4". Ranges: 0 - 4, 0 - 10, 0 - 16 or 0 - 25 bar. Please indicate upper value of pressure range when ordering
- DS05 Insulation shells**  
Please indicate nominal size (1/2 to 2") when ordering e.g. DS05-1/2
- ZR06K Double ring wrench**  
For removal of spring bonnet
- VST06-A Connection set**  
Threaded connections
- VST06-B Connection set**  
Solder connections

**Installation Example**

Connection size	R	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
	DN	15	20	25	32	40	50
W*	mm	55	55	60	60	70	70
* Minimum distance from wall to centre line of pipework							

**Installation Guidelines**

- Horizontal and vertical installation position possible
  - In vertical installation position spring bonnet with adjustment knob facing upwards
- Install shutoff valves
- The installation location should be protected against frost and be easily accessible
  - Pressure gauge can be read off easily
  - Simplified maintenance and cleaning
- For residential applications where maximum protection against dirt is required, install a fine filter upstream 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 DIN EN806 part 2)

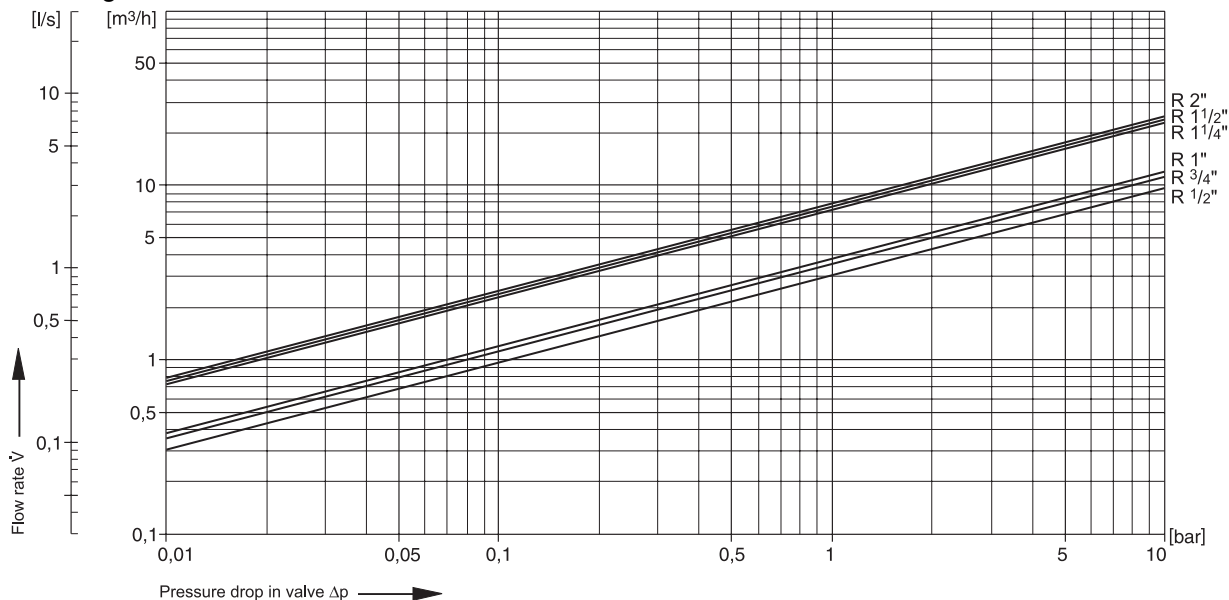
**Typical Applications**

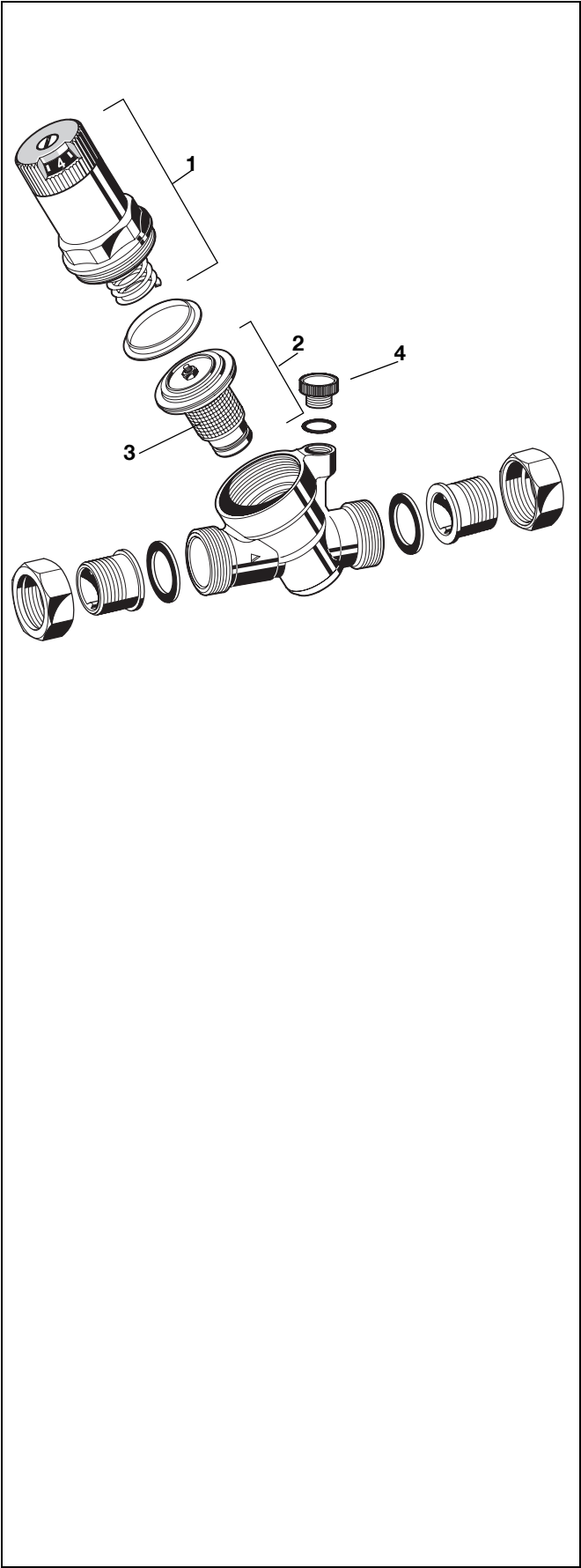
Pressure reducing valves of this type are suitable for all types of household water installations.

Pressure reducing valves can also be used for industrial and commercial applications within the range of their specifications.

Pressure reducing valves should be installed:

- If the static pressure exceeds the maximum permissible value for the system
- As protection against noise if the static pressure at take off points exceeds 5.0 bar (DIN 4109: Noise protection in high buildings)
- If several pressure zones are required when a pressurisation system is used (pressure reducers on each storey of a building)
- To achieve constant inlet and outlet pressures on pumped pressure boosting systems
- If pressure fluctuations in the downstream system must be avoided

**Flow Diagram**



**Spare Parts**

**Pressure Reducing Valve D05FS, from 2007 onwards**

No.	Description	Dimension	Part No.
1	Spring bonnet complete with setting scale	1/2" - 1"	0901515
		1 1/4" - 2"	0903890
2	Valve insert complete (without filter)	1/2" - 1"	D05FA-1/2B
		1 1/4" - 2"	D05FA-11/4B
3	Replacement filter insert	1/2" - 1"	ES05F-1/2A
4	Blanking plug with O-ring R1/4" (5 pcs.)	1/2" - 2"	S06K-1/4

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