D05F-EF

Pressure reducing valve with balanced seat

Standard 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.

APPROVALS

- NF EN 1567 approved

SPECIAL FEATURES

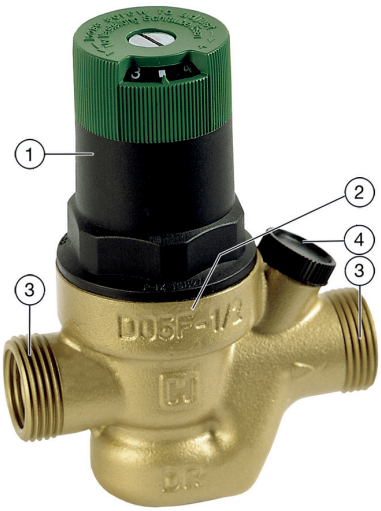
- Inlet pressure balancing – no influence on outlet pressure by fluctuating inlet pressure
- The valve insert is of high-quality synthetic material and can be fully exchanged
- The outlet pressure is set by turning the adjustment knob
- The set pressure is directly indicated on the set point scale
- The adjustment spring is not in contact with the drinking water
- With internal and external threads
- All materials are UBA conform
- All materials are ACS approved

TECHNICAL DATA

Media	
Medium:	Drinking water
Connections/Sizes	
Connection sizes:	1/2", 3/4"
Nominal sizes:	DN15, DN20
Pressure values	
Max. inlet pressure:	25 bar
Outlet pressure:	1.5 - 5.5 bar
Preset outlet pressure:	3 bar
Min. pressure drop:	1 bar
Operating temperatures	
Max. operating temperature medium accord. to EN 1567:	40 °C
Max. operating temperature medium:	70 °C *

* max. operating pressure 10 bar

CONSTRUCTION

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

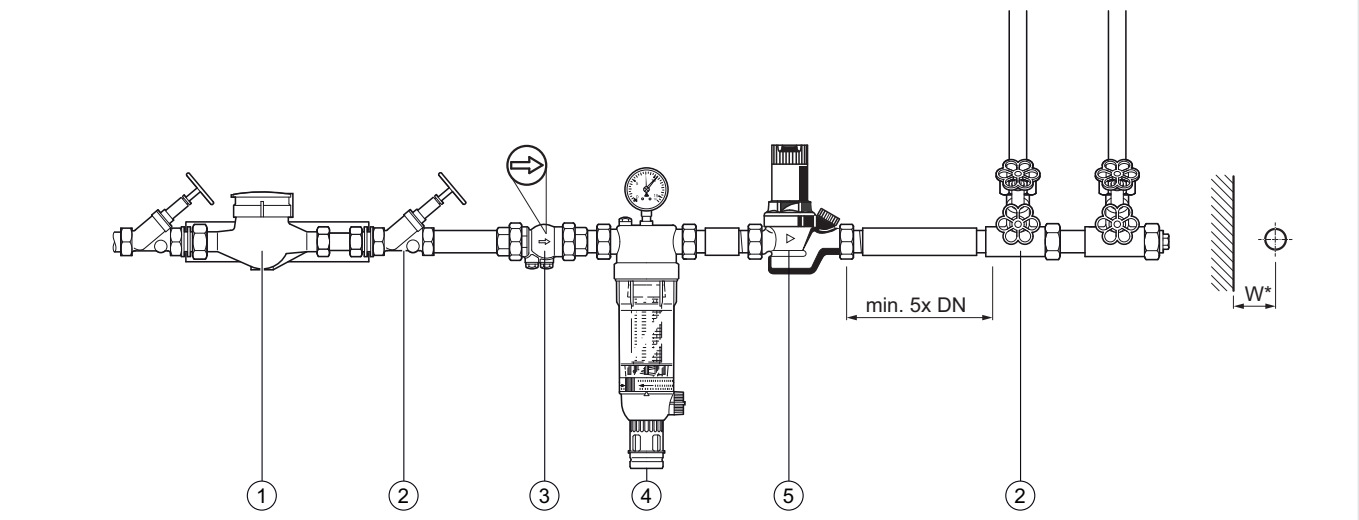


Fig. 1 Standard installation example for the pressure reducing valve

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

Connection sizes:		
R	1/2"	3/4"
R_I	1/2"	3/4"
R_A	3/4"	1"
Distance in mm (W*):	55	55

* 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"**
k_{VS}-value (m^3/h):	2.6	2.8

Pressure drop characteristics

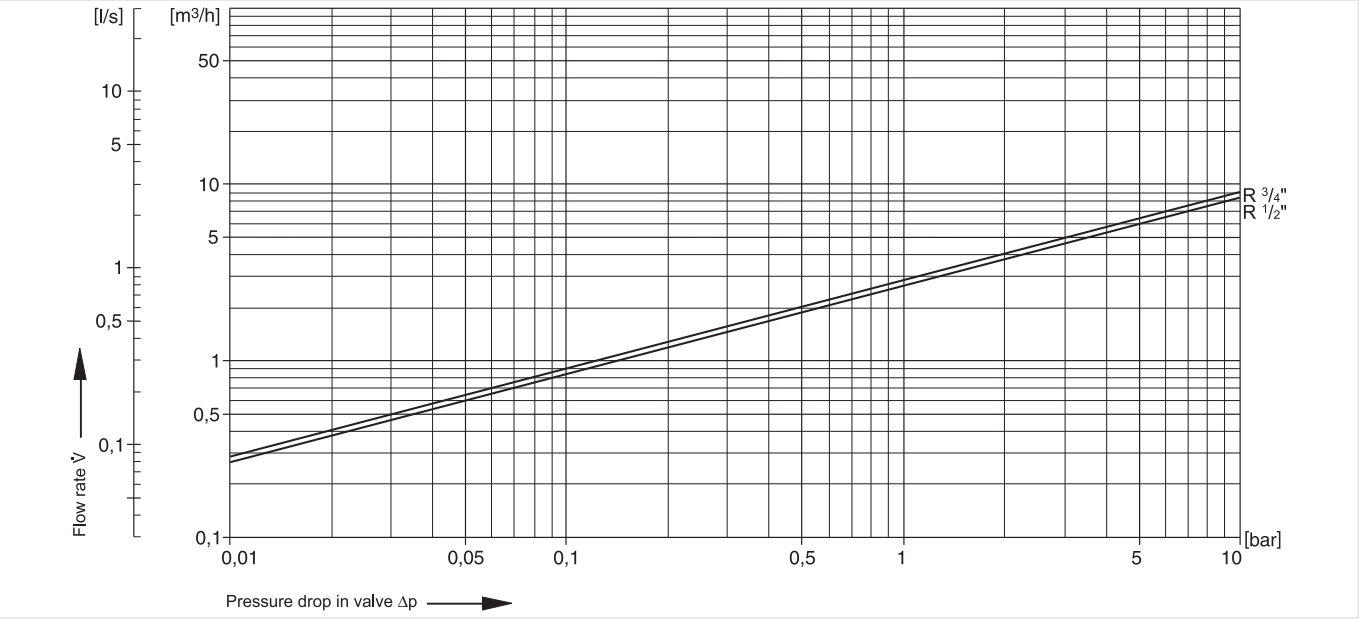
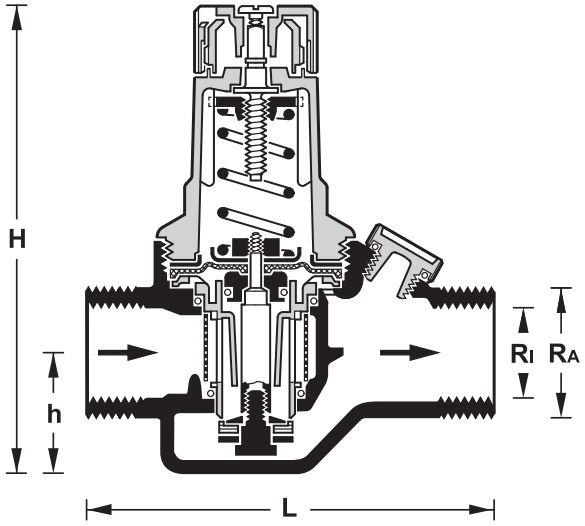


Fig. 2 Pressure drop within the valve in dependency of the flow rate and the used connection size

DIMENSIONS

Overview



Parameter		Values	
Connection sizes:	R	1/2"	3/4"
	R_I	1/2"	3/4"
	R_A	3/4"	1"
Nominal size diameter:	DN	15	20
Weight:	kg	0.60	0.80
Dimensions:	L	90	100
	H	122	122
	h	33	33

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" .

• standard

- not available

		D05F-...EF
Connection type:	external threads	•

Note: ... = space holder for connection size

Note: Ordering number example for 3/4" : D05F-3/4EF

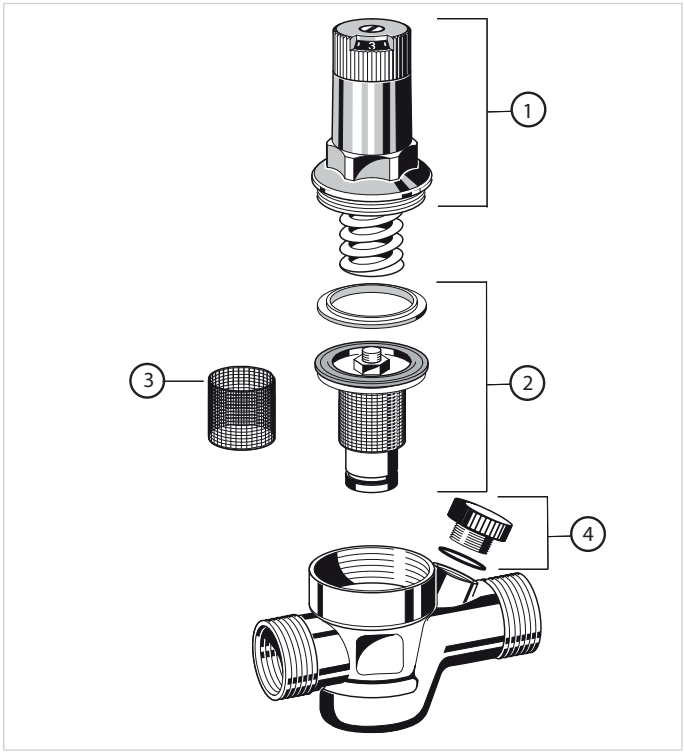
Accessories

	Description		Dimension	Part No.
	**M38K**	**Pressure gauge** Housing diameter 50 mm, below connection thread G 1/4" Note: Please indicate upper value of pressure range when ordering.		
		Range: 0 - 4 bar		M38K-A4
		Range: 0 - 10 bar		M38K-A10
		Range: 0 - 16 bar		M38K-A16
		Range: 0 - 25 bar		M38K-A25
	**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 D05F-EF, from 2012 onwards

Overview



	Description	Dimension	Part No.
1	**Spring bonnet complete**		
		1/2" - 3/4"	0901515
2	**Valve insert complete (without filter)**		
		1/2" - 3/4"	D05FAM-1/2B
3	**Replacement filter insert**		
		1/2" - 3/4"	ES05F-1/2A
4	**Blanking plug with O-ring R1/4" (5 pcs.)**		
		1/2" - 3/4"	S06K-1/4

For more information

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