Braukmann
D06F-LF

Lead-free pressure reducing valve with balanced seat

Standard pattern with set point 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, pressurization 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

- DVGW
- ACS
- SINTEF
- VA (ETA)

Special Features

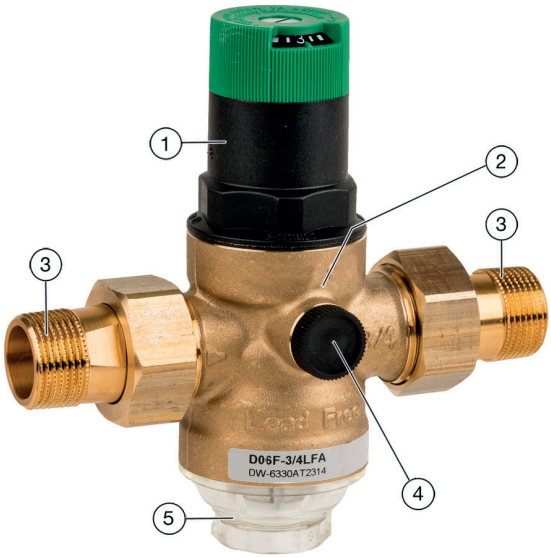
- LEAD-FREE: Pb content of all materials in contact with medium less than 0.1 %
- Inlet pressure balancing – no influence on outlet pressure by fluctuating inlet pressure
- Up to size $1^1/_4$" approved by LGA for low noise, Group 1 without limitations
- The valve insert is of high-quality synthetic 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
- Integral fine filter
- All materials in contact with medium follow UBA and ACS conformity

Technical Data

Medium	
Medium:	Drinking water
Connections/Sizes	
Connection size:	$^1/_2$" - 2"
Nominal sizes:	DN15 - DN50
Pressure values	
Max. inlet pressure with clear filter bowl:	16 bar
Max. inlet pressure with lead free brass filter bowl:	25 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:	30 °C
Max. operating temperature medium (10 bar/lead free brass filter bowl):	70 °C

Note: Use the SM06T brass filter bowl, if the valve can be exposed to UV radiation or solvent vapors.

Construction

Overview			
	**1**	Spring bonnet with adjustment knob and setting scale	High-quality synthetic material
	2	Housing with pressure gauge connections on both sides	Lead-free brass
	3	Threaded male connections	Lead-free brass
	4	Pressure gauge connection port $^{1}/_{4}$" (pressure gauge see accessories)	High-quality synthetic material
	5	Filter bowl	Clear synthetic
		Not depicted components:	
		Adjustment spring	Spring steel
		Valve insert complete with diaphragm and valve seat	High-quality synthetic material, EPDM diaphragm
		Fine filter with 0.16 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 before and after D06F for maintenance
- The device downstream should be protected by means of a safety valve (installed downstream of the pressure reducing valve). In these cases the delivery pressure of the pressure reducing valve shall be set to at least 20 % below the response pressure of the pressure relief-valve according to EN 806-2
- The installation location should be protected against frost and be easily accessible
  - Pressure gauge can be read off easily
  - With clear filter bowl, degree of contamination can be easily seen
  - Simplified maintenance and cleaning
- 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

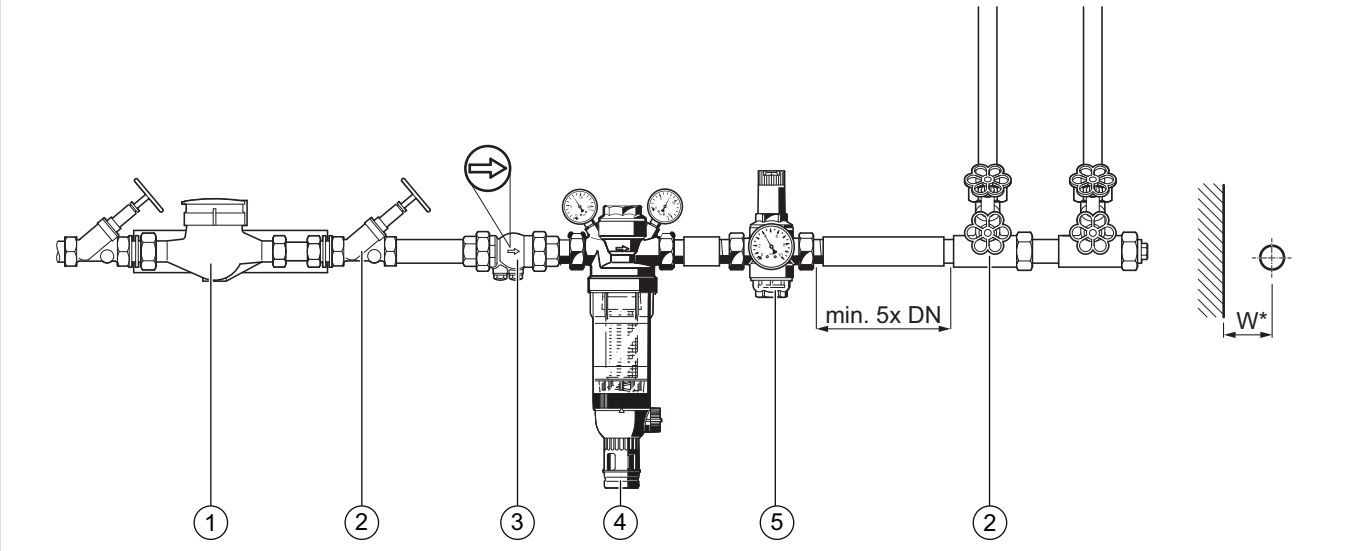


Fig. 1 Standard installation example for the pressure reducing valve

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

Connection size:	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 size:	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
k_{vs}-value (m^3/h):	2.4	3.1	5.8	5.9	12.6	12
Peak flow rate at 2m/s (m^3/h):	1.3	2.3	3.6	5.8	9.1	14
Peak flow rate at 3m/s (m^3/h):	1.8	3.3	5.4	8.6	13.7	21.1

Note: Peak flow rate of 2m/s applies to residential buildings in accordance with DIN EN 1567.
Peak flow rate of 3m/s applies to commercial systems in accordance with DIN 1988.

Pressure drop characteristics

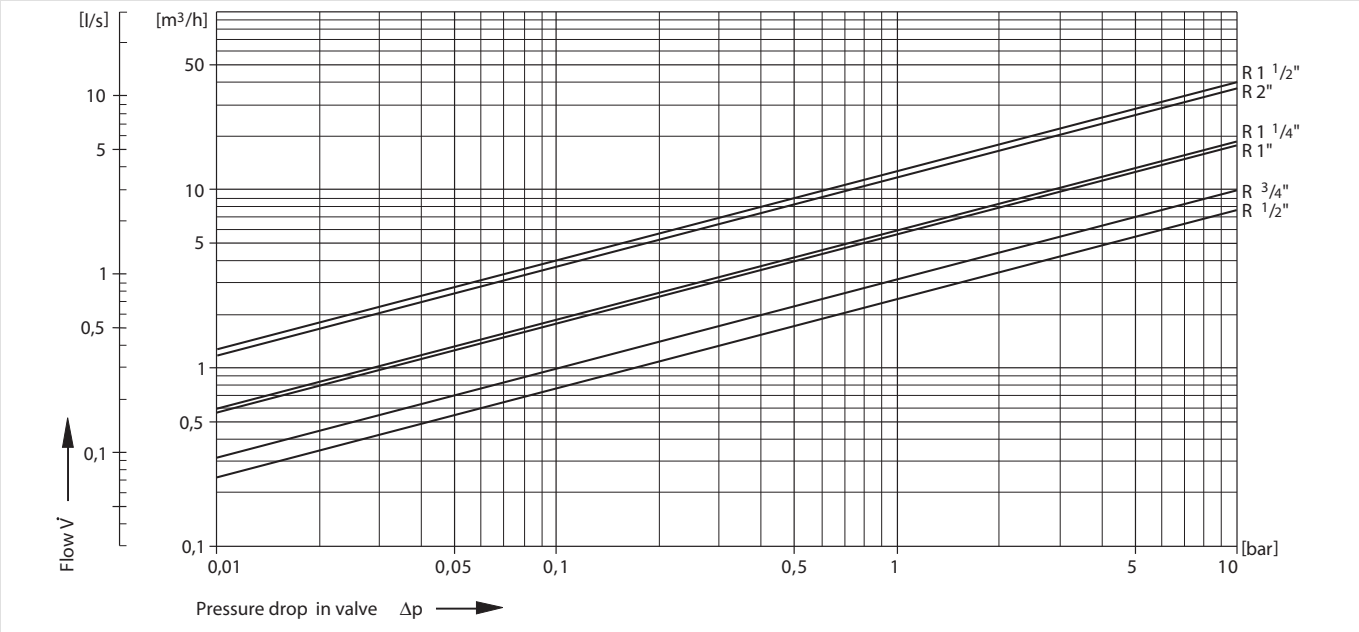
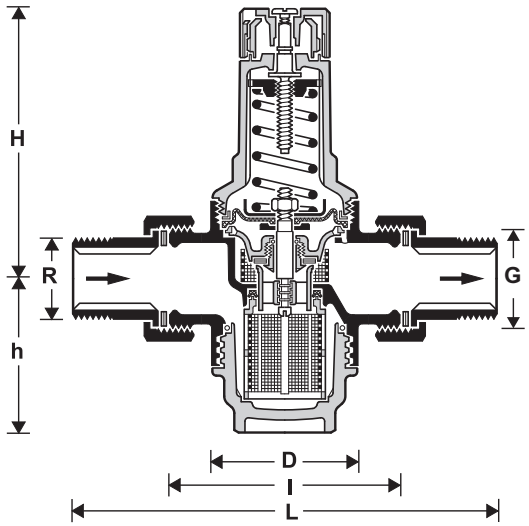


Fig. 2 Pressure drop within the valve in dependency of the flow rate and the used connection size

Dimensions

Overview



Parameter		Values					
Nominal size diameter:	DN	15	20	25	32	40	50
Connection size:	R	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
	G	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"
Weight:	kg	0.8	1.0	1.3	1.4	4.0	5.3
Dimensions:	L	140	160	180	200	225	255
	I	80	90	100	105	130	140
	H	89	89	111	111	173	173
	h	58	58	64	64	126	126
	D	54	54	61	61	82	82

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.

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

		D06F-...LFA	D06F-...LFB	D06F-...LFE
Max. operating temperature medium:	30 °C	•	–	•
	70 °C	–	•	–
Filter bowl:	clear	•	–	•
	brass	–	•	–
Connection type:	comes with connection sets for in- and outlet	•	•	–
	external thread housing connection	–	–	•

Note: ... = space holder for connection size

Note: Item number example for 1 1/4" and type A valve: D06F-11/4LFA

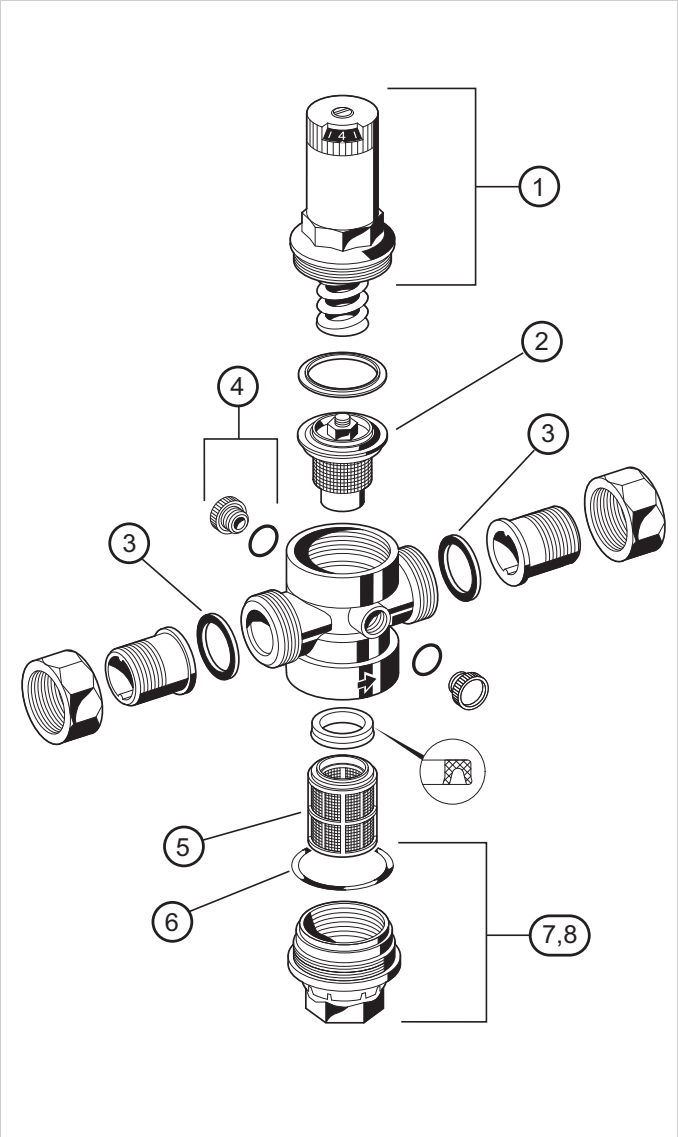
Accessories

	Description		Dimension	Item No.
	**M07M**	**Pressure gauge** Housing diameter 63 mm, rear connection thread G $^1/_4$"		
		Range: 0 - 4 bar		M07M-A4
		Range: 0 - 10 bar		M07M-A10
		Range: 0 - 16 bar		M07M-A16
		Range: 0 - 25 bar		M07M-A25
	**ZR06K**	**Double ring wrench** For removal of spring bonnet and filter bowl		
				ZR06K
	**VST06-LFA**	**Lead-free connection set** Threaded connections		
			$^1/_2$"	VST06-1/2LFA
			$^3/_4$"	VST06-3/4LFA
			1"	VST06-1LFA
			1 $^1/_4$"	VST06-11/4LFA
			1 $^1/_2$"	VST06-11/2LFA
			2"	VST06-2LFA

Spare Parts

Pressure Reducing Valve D06F-LF, from 2015 onwards

Overview



	Description	Dimension	Item No.
1	**Spring bonnet complete**		
		1/2" - 1"	0901515
		1" + 1 1/4"	0901516
		1 1/2" + 2"	0901518
2	**Valve insert complete (without filter)**		
		1/2" + 3/4"	D06FA-1/2LF
		1" - 1/4"	D06FA-1LF
		1 1/2" + 2"	D06FA-11/2LF
3	**Union seal washer (10 pcs.)**		
		1/2"	0901443
		3/4"	0901444
		1"	0901445
		1 1/4"	0901446
		1 1/2"	0901447
		2"	0901448
4	**Blanking plug with O-ring R1/4" (5 pcs.)**		
		1/2" - 2"	S06K-1/4
5	**Replacement filter insert**		
		1/2" + 3/4"	ES06F-1/2A
		1" + 1 1/4"	ES06F-1B
		1 1/2" + 2"	ES06F-11/2A
6	**O-ring set (10 pcs.)**		
		1/2" + 3/4"	0901246
		1" + 1 1/4"	0901499
		1 1/2" + 2"	0901248
7	**Clear filter bowl with O-ring**		
		1/2" + 3/4"	SK06T-1/2
		1" + 1 1/4"	SK06T-1B
		1 1/2" + 2"	SK06T-11/2
8	**Brass filter bowl with O-ring**		
		1/2" + 3/4"	SM06T-1/2
		1" + 1 1/4"	SM06T-1B
		1 1/2" + 2"	SM06T-11/2

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For more information

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