

D22

Pressure reducing valve with piston balanced seat

Standard pattern for compressed air

APPLICATION

Pressure reducing valves of this type protect installations against excessive pressure from the supply. They can be used for industrial or commercial applications within the range of their specification.

Should excessive pressure occur on the outside of the pressure reducing valve and the downstream system needs to be protected, a safety valve should be installed.

APPROVALS

- Certified to Pressure Equipment Directive 2014/68/EU, CE.

SPECIAL FEATURES

- Inlet pressure balancing – no influence on outlet pressure by fluctuating inlet pressure
- Short installed length
- Screw with knob for setting pressure
- The adjustment spring is not in contact with the medium
- Internal threaded connection
- Compact construction
- Light weight




TECHNICAL DATA

Media	
Medium:	Compressed air*, non-toxic and non flammable gases
Connections/Sizes	
Connection sizes:	1/4" - 2"
Pressure values	
Max. inlet pressure:	40 bar
Outlet pressure:	1.0 - 10 bar
Preset outlet pressure:	1 bar
Nominal pressure:	PN 40
Min. pressure drop:	1.0 bar
Operating temperatures	
Max. operating temperature medium:	70 °C

* As part of an installation being approved according to PED requirements, this product must also be certified.

CONSTRUCTION

Overview	Components	Materials
	1 Spring bonnet with adjustment knob	High-quality synthetic material
	2 Housing	Brass
	3 Pressure gauge not included (see accessories)	High-quality synthetic material
Not depicted components:		
	Adjustment spring	Spring steel
	Piston guide	Brass
	Valve piston	Brass
	Diaphragm	NBR
	O-rings and seals	NBR

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

- Install in horizontal pipework with spring bonnet directed downwards
- Install shut-off valves
- The installation location should be protected against frost and be easily accessible
 - Pressure gauge can be read off easily (see accessories)
 - Simplified maintenance and cleaning
- Install downstream of the filter or strainer
 - This position ensures optimum protection for the pressure reducing valve against dirt
- Provide a straight section of pipework of at least five times the nominal valve size after the pressure reducing valve
- Requires regular maintenance in accordance with EN 806-5

Installation Example

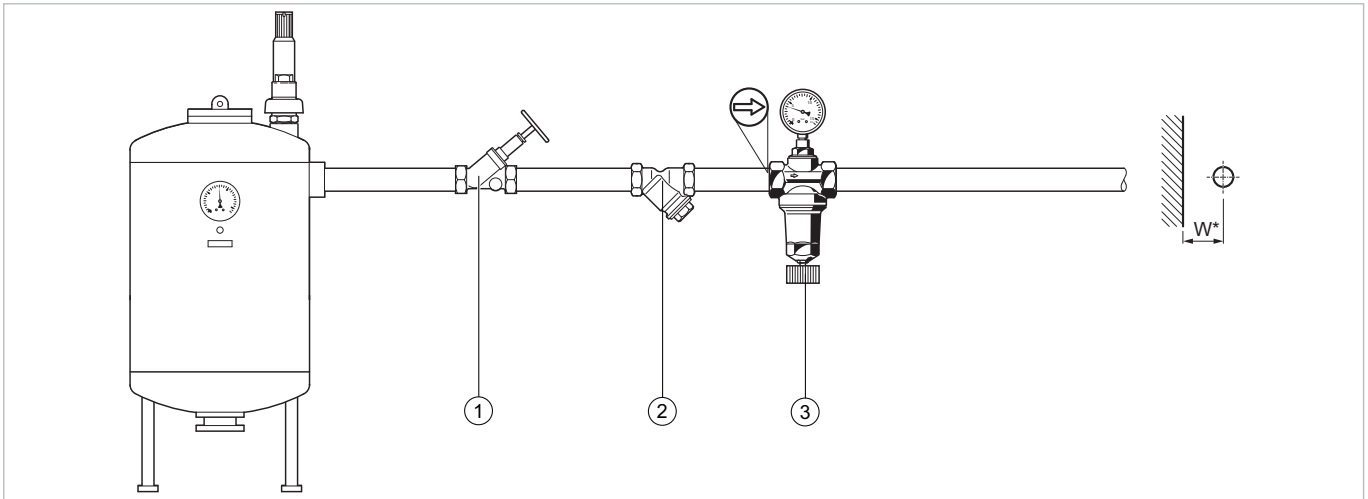


Fig. 1 Standard installation example for the pressure reducing valve

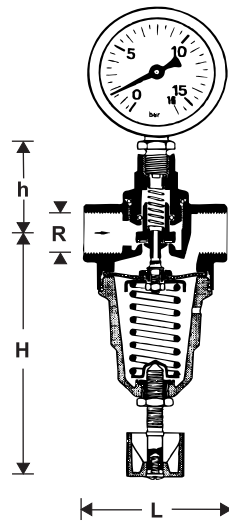
- 1 Shut-off valve
- 2 Check valve
- 3 Pressure reducing valve

Connection sizes:									
DN		8	10	15	20	25	32	40	50
inch		1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Distance in mm (W*):		45	45	50	50	55	60	60	70

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

DIMENSIONS

Overview



Parameter		Values							
Connection sizes:	R	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Nominal size diameter:	DN	8	10	15	20	25	32	40	50
Weight:	kg	0.3	0.3	0.45	0.6	1.35	1.8	2.9	3.8
Dimensions:	L	50	50	65	80	95	105	115	130
	h	90	90	105	105	150	160	200	210
	D	34	34	36	42	57	57	72	72
PED 2014/68/EU:		n.a.						✓	✓

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: 1/4", 3/8", 1/2", 3/4", 1", 1 1/4", 1 1/2" and 2".

- standard
- not available


		D22-...A
Connection size:	Standard version:	•

Note: ... = space holder for connection size

Note: Ordering number example for 1 1/4" and type A valve: D22-11/4A

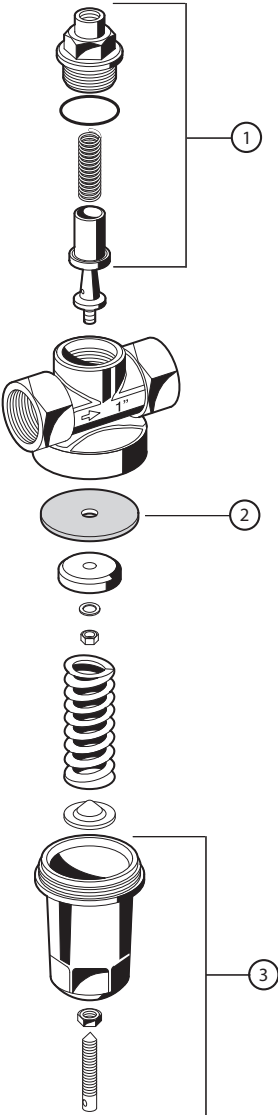
Note: Special Versions available on request

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	

Spare Parts

Pressure Regulator D22, from 1968 onwards

Overview	Description	Dimension	Part No.
	1 Valve cone complete for D22		
		1/4" + 3/8"	0903223
		1/2"	0903224
		3/4"	0903225
		1"	0903226
		1 1/4"	0903227
		1 1/2"	0903228
		2"	0903229
	2 Diaphragm		
		1/4" + 3/8"	2202500
		1/2" + 3/4"	2202700
		1" + 1 1/4"	2203300
		1 1/2" + 2"	2204100
	3 Spring bonnet complete		
		1/4" + 3/8"	0900272
		1/2" + 3/4"	0900273
		1" + 1 1/4"	0900274
		1 1/2" + 2"	0900275

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