

D15S

Pressure Reducing Valve Diaphragm-actuated with Cartridge Insert

Product Specification Sheet



Construction

The pressure reducing valve comprises:

- Housing with PN16 flanges per ISO7005-2, EN1092-2, face to face length acc. EN 558-1
- Spring bonnet with adjustment screw
- Adjustment spring
- Cartridge insert
- Pressure gauges

Materials

- Housing made of ductile cast iron (EN-GJS-400-15 EN1563), coated with PA (polyamide)
- Spring bonnet made of ductile cast iron (EN-GJS-400-15 EN1563), coated with PA (polyamide)
- Cartridge insert DN65 - DN100 made of low-lead DZR brass (<2.2% acc. to DIN 50930 part 6) with stainless steel valve spindle. Cartridge insert DN150 - 200 made of stainless steel
- Spring steel adjustment spring
- Diaphragm and seals made of EPDM
- Groove ring and sealing disc made of high-quality PU
- Stainless steel screws and nuts

Approvals

DVGW-, WRAS-, NF-, KIWA- and SVGW-certified for DN65 - 100. ACS and WRAS requested for DN150 - 200.

Application

Pressure reducing valves of this type protect installations against excessive pressure from the supply. They can be used for household, 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

- Patented cartridge solution for easy assembly and maintenance
- Two cartridge inserts for all nominal widths make warehousing efficient
- Meets all requirements of DIN EN 1567
- Lead content of all materials is below permissible limits specified by DIN 50930 Part 6
- Functionality and performance have been confirmed by an accelerated life test with over 400,000 cycles (requirement acc. to DIN EN 1567: 200,000 cycles)
- Meets hygienic requirements of KTW, W270, ACS and WRAS for potable water

Technical Data

Medium	Drinking water, compressed air ¹ acc. ISO 8573-1 class 2 in consideration of valid standards (e.g. EN 12502)
Operating temperature	Max. 65 °C
Inlet pressure	Max. 16 bar
Outlet pressure	DN 65 - 100: 1.5 - 6.5 ² bar DN 150 - 200: 1.5 - 8 bar
Nominal pressure	PN16
Minimum pressure drop	1.0 bar
Nominal size	DN65, DN80, DN100, DN150, DN200, DN125 available with adapter flanges DN100 / DN125

1. As part of an installation being approved according to PED requirements, this product must also be certified.
2. Higher outlet pressure on request.

Method of Operation

Spring loaded pressure reducing valves operate by means of a force equalizing 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.

Installation Example

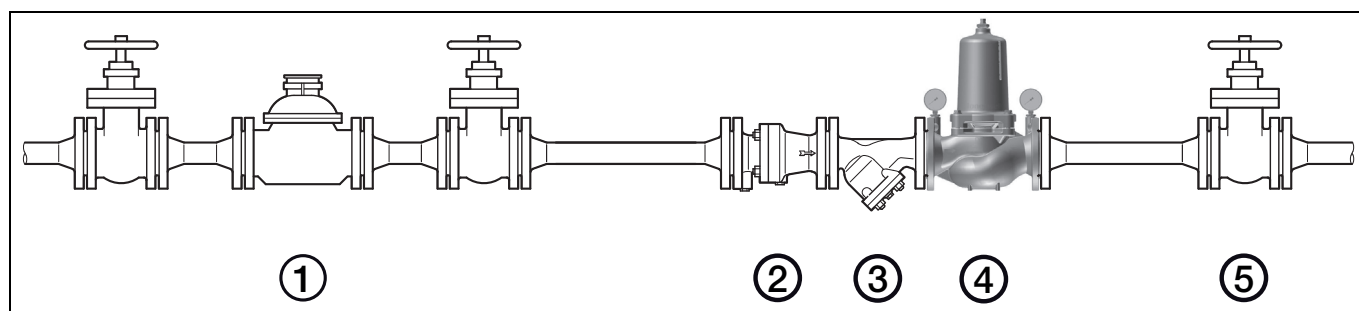


Figure 1: Installation example

- 1 Shut-off device
- 2 Check valve
- 3 Strainer
- 4 Pressure reducing valve
- 5 Shut-off valve

Connection size	DN	65	80	100	150	200
	Inch	2 1/2"	3"	4"	6"	8"
W ¹	mm	120	130	145	200	230

1. Minimum distance from wall to centre line of pipework

Installation Guidelines

- Install in horizontal pipework with spring bonnet directed 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
- 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 (in accordance with DIN EN806 part 2)

Typical Applications

Pressure reducing valves of this type are suitable for multi dwelling buildings, industrial and commercial applications within the range of their specifications.

The pressure reducing valve should be installed, if one or more of the following conditions apply:

- The static pressure exceeds the maximum permissible value for the system.
- Several pressure zones are required when a pressurisation system is used (pressure reducers on each storey of a building).
- Pressure fluctuations in the downstream system must be avoided.
- To achieve constant inlet and outlet pressures on pumped pressure boosting systems.
- To reduce the water consumption.

Dimensions and Ordering Information

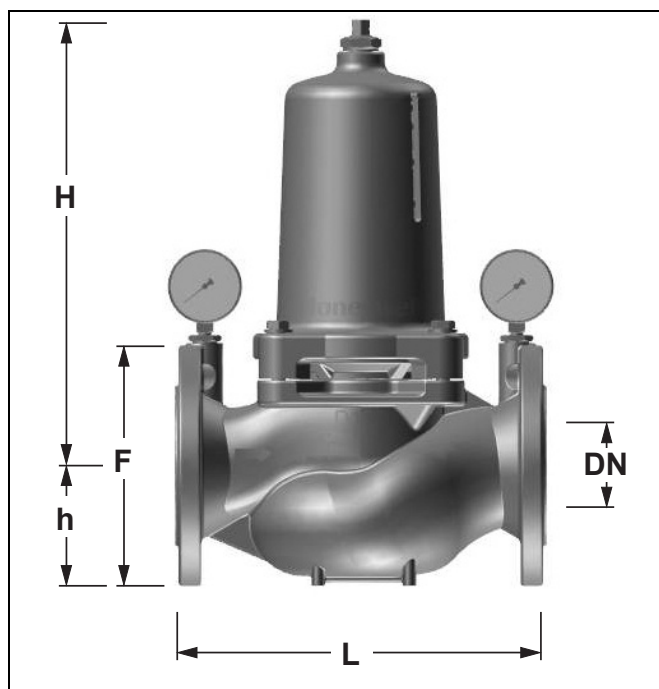


Figure 2: Dimensions

D15S- ... A = With flanges PN 16, ISO 7005-2, EN 1092-2, face to face length acc. EN558-1
 Housing made of ductile cast iron (EN-GJS-400-15 EN1563), coated with PA (polyamide)
 Special Versions available on request.

Connection size

Connection size	DN	65	80	100	150	200
Nominal size	Inch	2 1/2"	3"	4"	6"	8"
Weight	approx. kg	30.5	32	34.5	110	135
Dimensions (mm)	L	290	310	350	480	600
	H	370	370	370	541	534
	h	93	100	110	143	170
	F*	185	200	220	285	340
k _{vs} -value		47	70	110	250	450

* F = width

Accessories

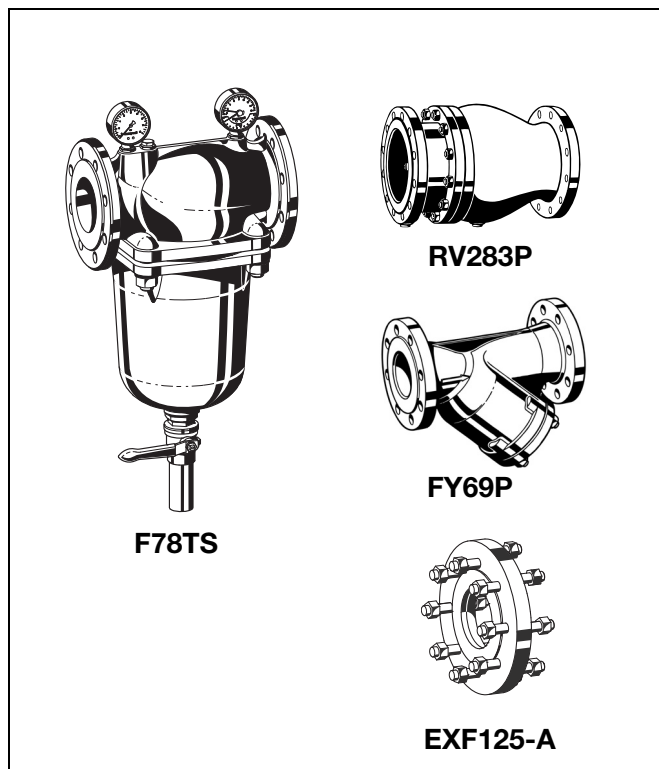


Figure 3: Accessories

RV283P Check valve

Grey cast iron housing, powder coated inside and outside. DIN/DVGW tested in compulsory test sizes DN 65, DN 80 and DN 100

FY69P Strainer

With double mesh, grey cast iron housing, powder coated inside and outside.

A = Mesh size approximately 0.5 mm

F78TS Reverse-rinsing filter

Ductile iron housing and filter bowl. Available in sizes DN 65 to DN 100, with filter mesh sizes 20 µm, 50 µm, 100 µm or 200 µm

EXF125-A Extension flange DN125

Adapter flanges DN100 to DN125

Ductile iron, PN16 acc. ISO 7005-2 and EN1092-2. Thickness (without bolts) = 33 mm, DVGW approved, including bolts and nuts.

Spare Parts

Pressure Reducing Valve D15S, from 2012 onwards

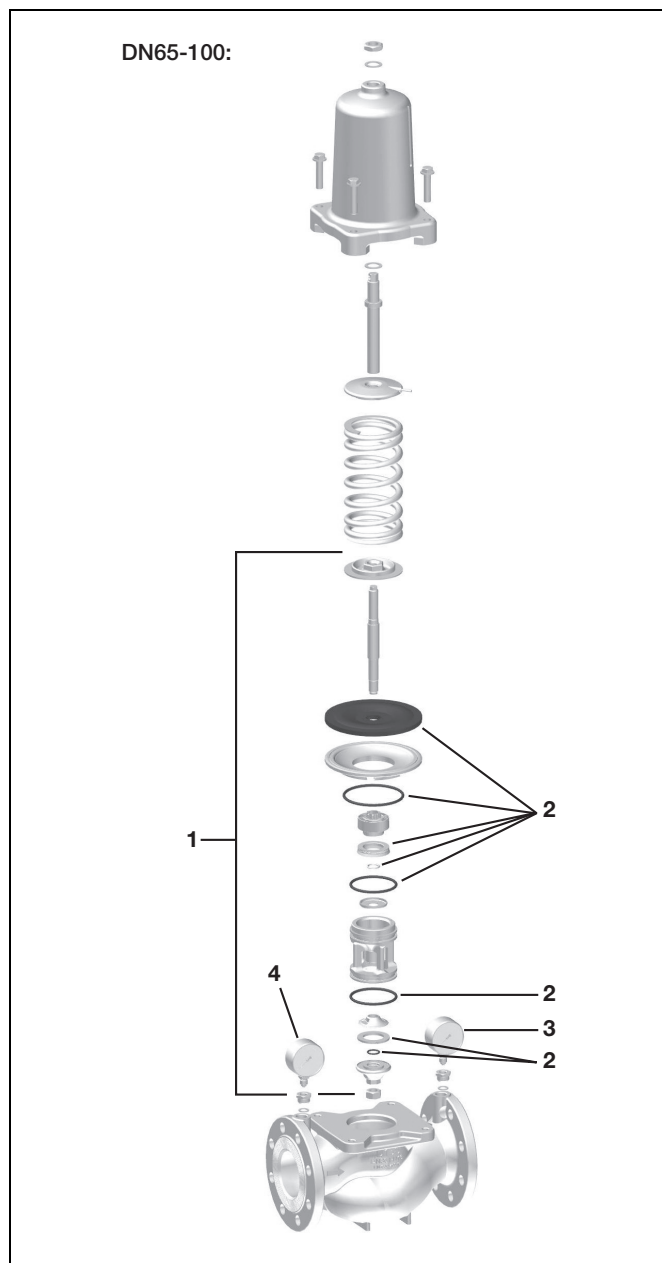


Figure 4: Spare parts

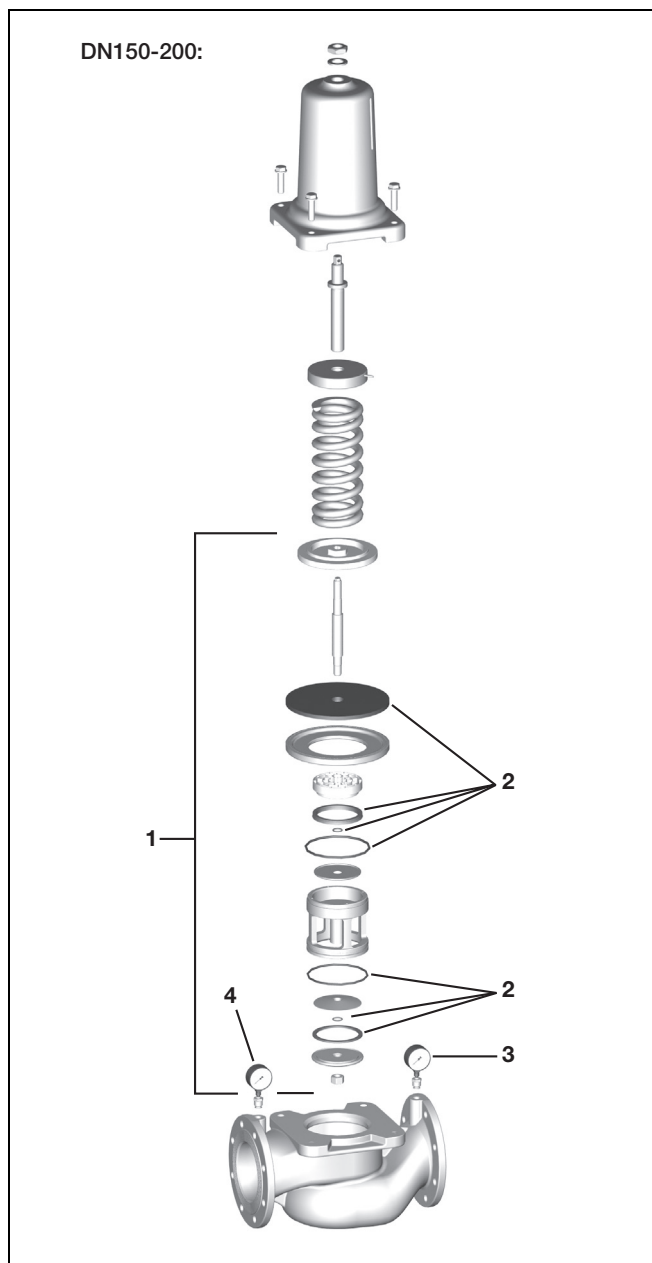


Figure 5: Spare parts

No.	Description	Dimension	Part No.
1	Valve insert complete	DN65-100	0904120
		DN150-200	0904139
2	Set of seals complete	DN65-100	0904121
		DN150-200	0904140
3	Pressure gauge Ranges 0 - 10 bar		M39M-A10
4	Pressure gauge Ranges 0 - 16 bar		M39M-A16



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