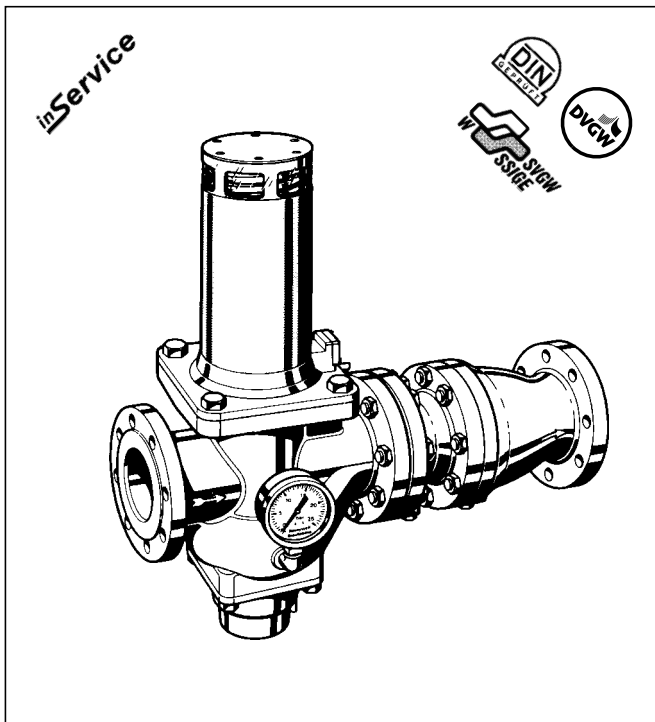


R 295 P-F

Backflow preventer with flanges, DIN type 1 for medium risk protection

Product specification sheet



Construction

The backflow preventer comprises:

- Housing with pressure gauge
- Outlet non return valve
- Spring bonnet
- PN 16 flanged connections to DIN 2533
- Drain connector
- Valve insert with spring
- Spindle guide with double 'O' ring seal

Materials

- Grey cast iron housing, powder coated inside and outside
- Mild steel spring bonnet
- NBR seals
- Stainless steel valve stem and spring
- Red bronze for other internal parts
- Red bronze drain connector DN 65 - DN 100
- Grey cast iron drain connector DN 125 - DN 200, powder coated inside and outside
- Chrome plated balanced-seat piston
- High grade synthetic material bearing surfaces for sliding internal parts

Application

R 295 P-F backflow preventers are suitable for the protection of drinking water systems as required by DIN 1988 "The technical regulation of drinking water systems" and correspond to type 1 construction in those regulations. Their purpose is to protect systems against backsiphonage and reverse flow of non-potable water into the public water supply network.

R 295 P-F backflow preventers can be used to provide protection up to and including risk class 3 (slightly toxic substances) and therefore offer better protection than non return valves.

Special Features

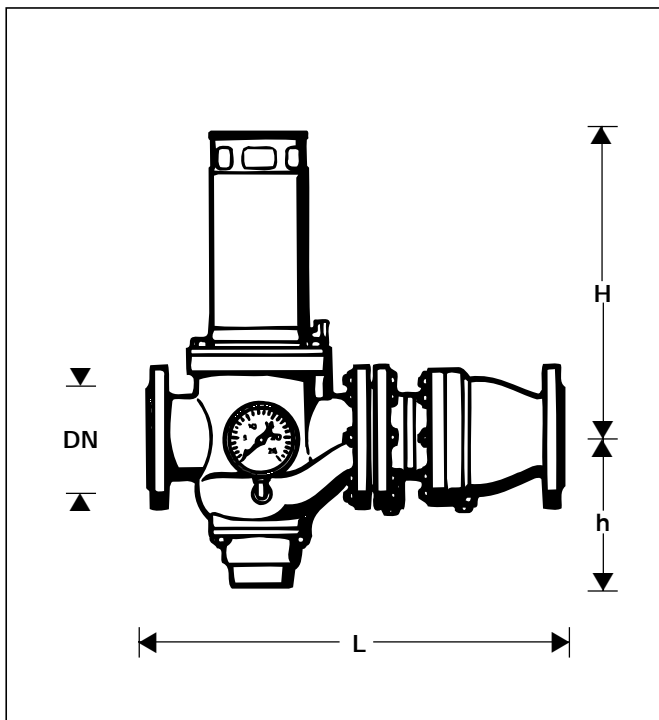
- DIN/DVGW and SVGW approvals in all connection sizes
- Optimum protection of the drinking water supply system
- Enhanced protection against backsiphonage into the water supply network
- Shut-off position visually indicated on the spring bonnet
- Compact construction
- **inService** - maintenance and service without removal from the pipework
- Powder coated inside and outside – Powder used is physiologically and toxicologically safe
- Meets KTW requirements
- Reliable, tried and tested
- Low pressure drop and high flow rate

Range of Application

Medium	Cold water
Inlet pressure	Maximum 16.0 bar

Technical Data

Installation position	Horizontal with spring bonnet upwards
Operating temperature	Up to 40 °C
Opening pressure	0.5, 1.0 or 1.5 bar as required (DN 65 - DN 100) 0.5, 1.0 bar as required (DN 125 - DN 200)
Minimum inlet pressure	Opening pressure + 1.0 bar
Connection sizes	DN 65 - 200



Method of Operation

Type 1 backflow preventers remain in the flow position and change to the shut-off position only when the inlet pressure falls below the design opening pressure.

The inlet pressure operates on the annular surface of the valve piston and pushes it against the force of the spring and brings the piston to the open position. If the supply pressure falls below the opening pressure needed to overcome the spring force (for example because of a broken pipe or during service work by the supply undertaking), then the integral spring pushes the valve into the closed position.

Options

R 295 P-... FA = With flanges, 0.5 bar opening pressure

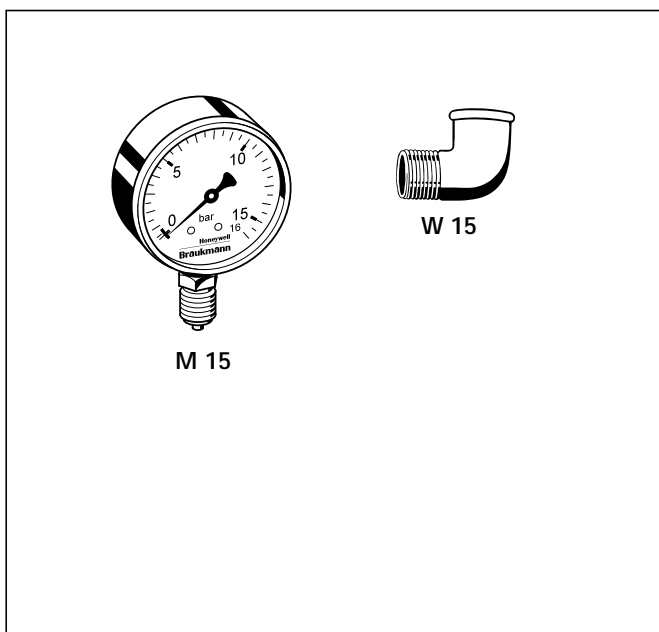
R 295 P-... FB = With flanges, 1.0 bar opening pressure (standard pattern)

R 295 P-... FC = With flanges, 1.5 bar opening pressure (DN 65 - DN 100 only)

Special versions available on request

Connection size

Connection sizes DN	65	80	100	125	150	200
Weight (Approx. kg)	48	67	89	145	206	408
Dimensions (mm)						
L	532	572	652	752	882	1102
H	380	495	475	528	563	851
h	165	208	232	280	313	438
Nominal flow rate (m ³ /h) at Δp = 0.3 bar	27	34	68	114	150	198
k _{vs} -value (full flow)	50	62	125	208	274	362
ξ value	11	17	10	9	10	19
Opening pressure (bar)	0.5, 1.0 or 1.5 bar as required			0.5 or 1.0 bar as required		
DIN/DVGW Approval No.	575 V	576 V	577 V	578 V	579 V	580 V
SVGW Approval No.	8309-1381					



Accessories

M 15 Pressure gauge

Housing 100 mm Ø. Rear connection G 1/2"

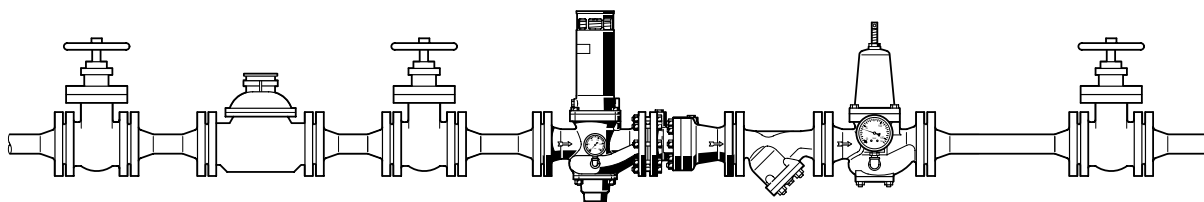
Range: 0 - 4 bar, 0 - 10 bar, 0 - 16 bar, 0 - 25 bar

Please indicate upper value of pressure range when ordering

W 15 Elbow

Galvanised malleable iron, G 1/2", for pressure gauge M 15

Installation Example



Installation Guidelines

- Fit isolating valves
 - With isolating valves, **inService** is possible - maintenance and service without removal from the pipework
- Install in horizontal pipework with spring bonnet upwards.
 - Only this orientation ensures standard performance
- Ensure good access
 - So that the pressure gauge can be easily seen
 - Simplifies maintenance and inspection
- No further unprotected mains water supply may be connected downstream of the backflow preventer.
- The backflow preventer must not be fitted in any areas or ducts where poisonous gases or vapours may be present or where flooding can occur.

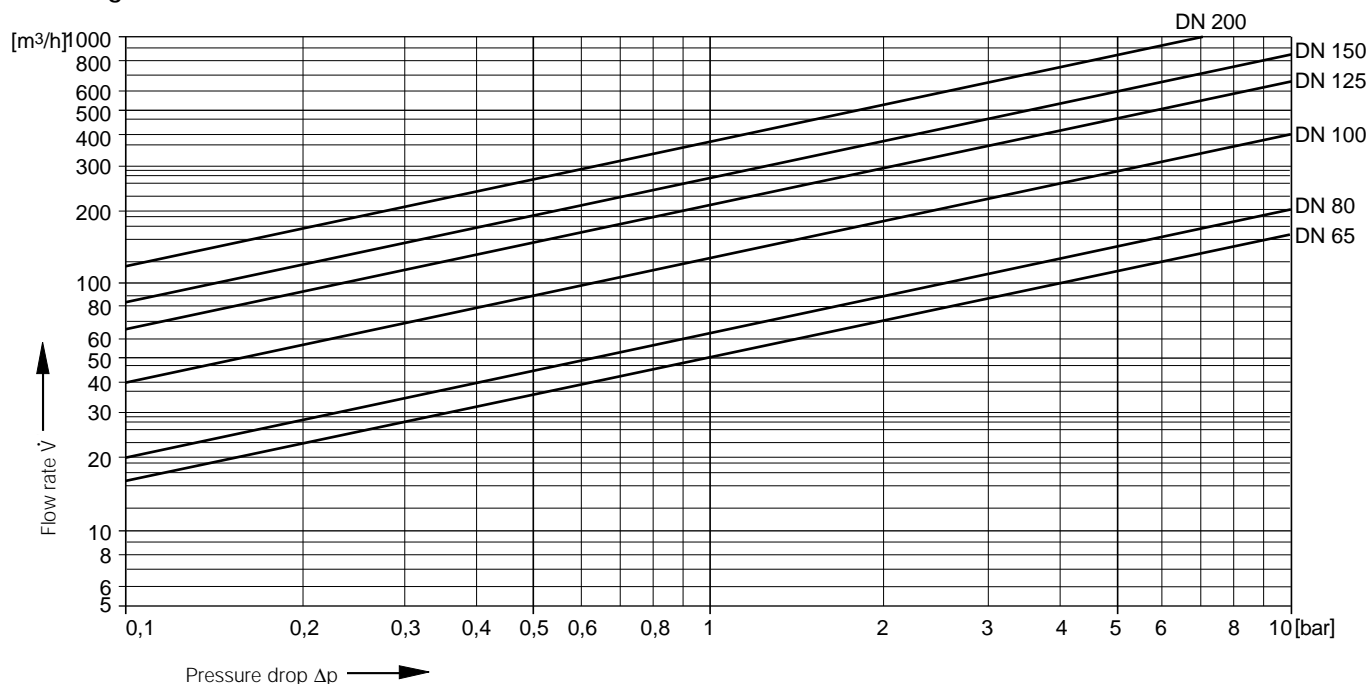
Typical Applications

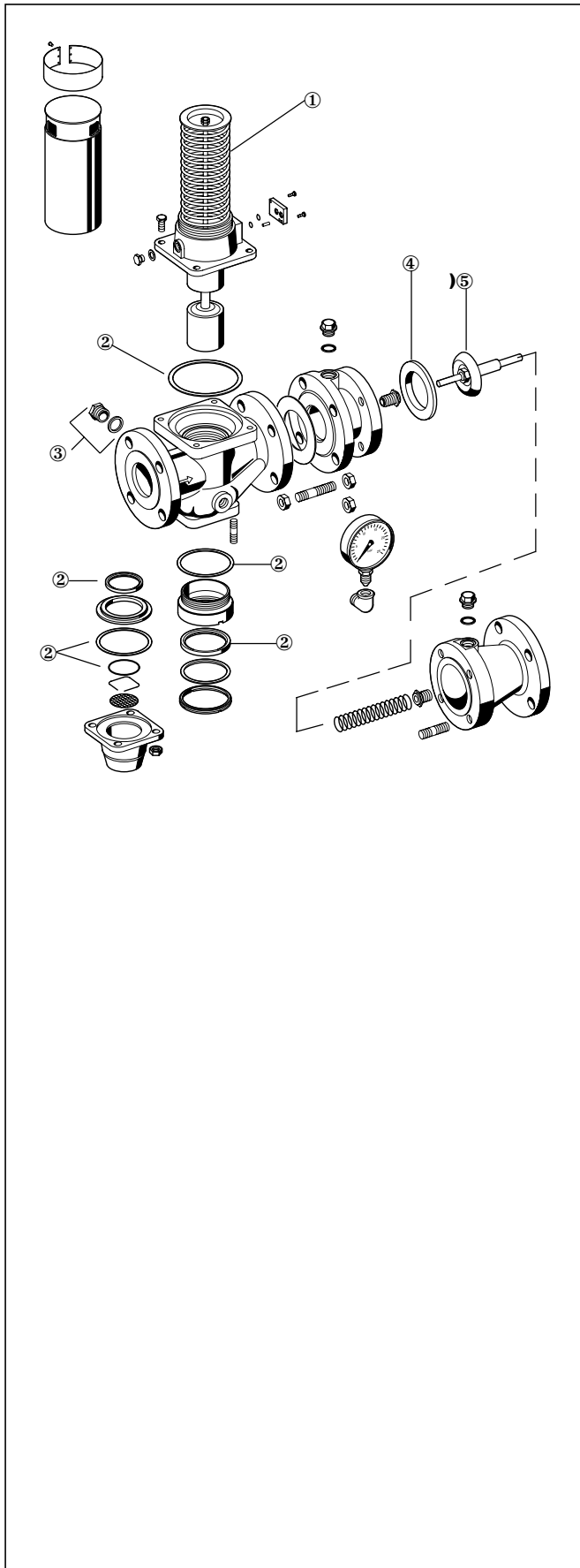
R 295 P-F backflow preventers are suitable for water supplies to buildings and within the scope of their specification can also be used for commercial and industrial applications.

The following are some typical uses:

- Softening and deacidification plants without DVGW approval.
- Drink vending machines
- Hot water boilers, automatic pressure boilers
- Heating system filling assemblies without DVGW approval, water without inhibitors
- Air conditioning plants
- Automatic milking machine washing plants with disinfectant dosing

Flow Diagram





Spare Parts - R 295 P-F backflow preventers

Description	Nominal size	Part number	
① Valve insert complete 0.5 bar	DN 65	R 295 A - 65 FA	
	DN 80	R 295 A - 80 FA	
	DN 100	R 295 A - 100 FA	
	DN 125	R 295 A - 120 FA	
	DN 150	R 295 A - 150 FA	
	DN 200	R 295 A - 200 FA	
	1.0 bar	DN 65	R 295 A - 60 FB
		DN 80	R 295 A - 80 FB
		DN 100	R 295 A - 100 FB
		DN 125	R 295 A - 125 FB
		DN 150	R 295 A - 150 FB
		DN 200	R 295 A - 200 FB
1.5 bar	DN 65	R 295 A - 65 FC	
	DN 80	R 295 A - 80 FC	
	DN 100	R 295 A - 100 FC	
② Seal ring set	DN 65	0901093	
	DN 80	0901094	
	DN 100	0901095	
	DN 125	0901143	
	DN 150	0901145	
	DN 200	0901147	
③ Blanking plug with seal ring (pack of 5)	DN 65 - 200	S 15 M - 1/2	
④ Lip seal ring	DN 65	5350000	
	DN 80	5350300	
	DN 100	5350400	
	DN 125	2070300	
	DN 150	2067300	
	DN 200	2238900	
⑤ Valve piston complete	DN 65	0900376	
	DN 80	0900377	
	DN 100	0900378	
	DN 125	0900379	
	DN 150	0900380	
	DN 200	0900381	

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