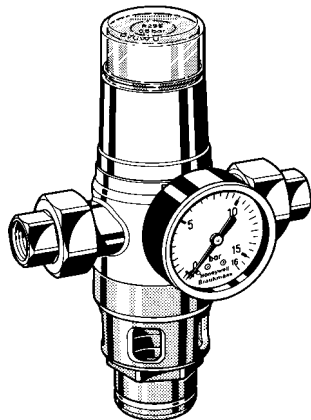


R 295

Backflow preventer with union connectors DIN type 1 for medium risk protection

Product specification sheet

Patent-Nr. DE-PS 2751468



inService



Application

R 295 backflow preventers are suitable for the protection of drinking water systems as required by EN 1717 "The technical regulation of drinking water systems" and correspond to type 1 construction in those regulations. Their purpose is to protect systems against back pressure, back flow and back syphonage of non-potable water into the public water supply network.

R 295 backflow preventers can be used to provide protection up to and including liquid category 3 (slightly toxic substances) and therefore offer better protection than non return valves.

Special Features

- DIN/DVGW and SVGW approvals in all connection sizes
- Low pressure drop and high flow rate
- Optimum protection of the drinking water supply system
- Enhanced protection against back pressure, back flow and back syphonage into the water supply network
- Shut-off position visually indicated on the spring bonnet
- Compact construction
- Standardised discharge connection
- **inService** - maintenance and service without removal from the pipework
- Meets KTW requirements
- Reliable, tried and tested

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, 1.5 or 2 bar as required
Minimum inlet pressure	Opening pressure + 1.0 bar
Connection sizes	1/2" - 2"

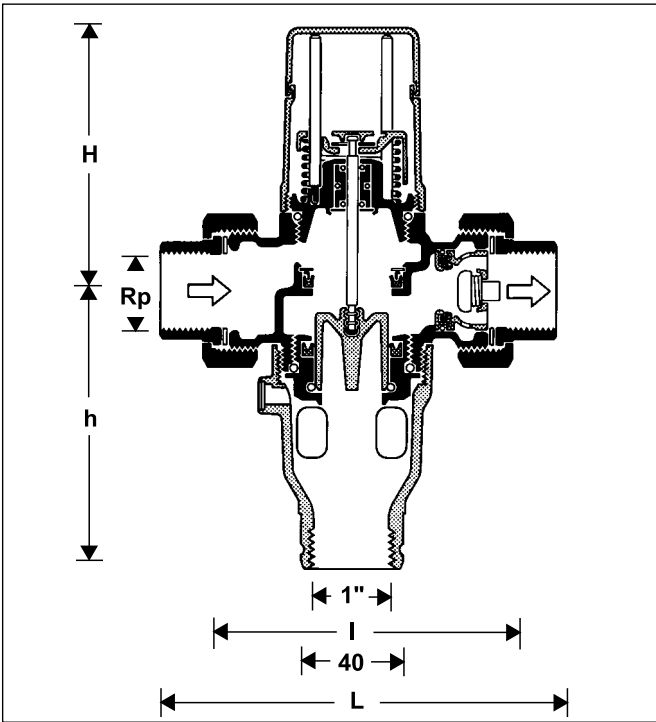
Construction

The backflow preventer comprises:

- Housing with pressure gauge
- Outlet non return valve
- Threaded union connectors
- Spring bonnet
- Drain connection
- Valve insert with spring
- Spindle guide with double 'O' ring seal

Materials

- Red bronze housing
- Brass union nuts
- Red bronze threaded union connectors (brass for 2")
- High grade synthetic material valve disc
- High grade corrosion resistant synthetic material for other internal parts
- High grade synthetic material drain connection
- High grade synthetic material spring bonnet
- NBR seals
- Stainless steel valve stem and spring
- High grade synthetic material non return valve



Method of Operation

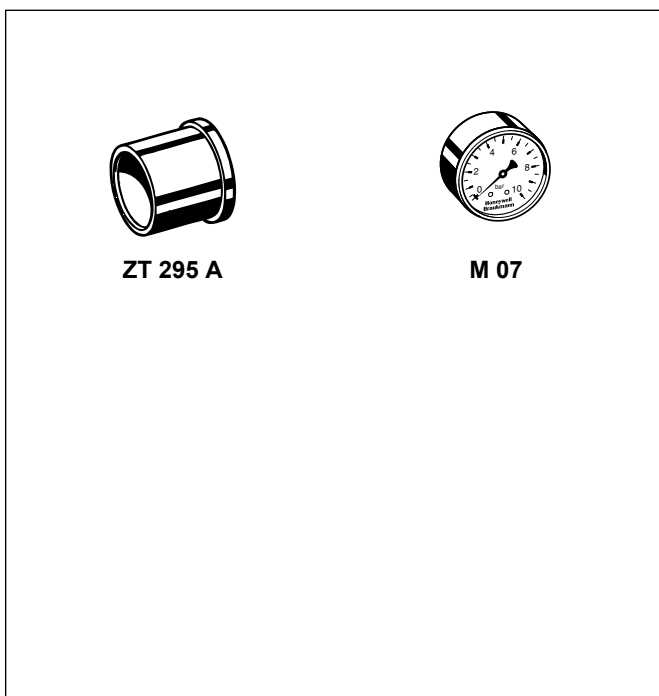
Type 1 backflow preventers remain in the flow position and change to the shut-off position only when the inlet pressure falls below the design opening pressure.

The inlet pressure operates on the annular surface of the valve piston and pushes it against the force of the spring bringing 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 - ... A = With female threaded union connectors, 0.5 bar opening pressure
 - R 295 - ... B = With female threaded union connectors, 1.0 bar opening pressure
 - R 295 - ... C = With female threaded union connectors, 1.5 bar opening pressure (standard pattern)
 - R 295 - ... D = With female threaded union connectors, 2.0 bar opening pressure
- Connection size Special versions available on request

Connection sizes	Rp	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Weight	(Approx. kg)	1.4	1.6	1.8	4.3	4.9	5.3
Dimensions	(mm)						
	L	151	153	159	216	228	241
	l	105	105	105	150	160	165
	H	105	107	107	162	161	154
	h	124	122	122	157	158	165
Nominal flow rate	(m ³ /h)						
	at Δp = 0.3 bar	2.5	3.3	4.5	7	10	15
	kvs-value	4.5	6	8	13	18	27
	ξ value	4	7	10	13	12.5	14
Opening pressure	(bar)	0.5, 1.0, 1.5 or 2.0 as required					
DIN/DVGW Approval No.		569 V	570 V	571 V	572 V	573 V	574 V
SVGW Approval No.		8309 - 1381					



Accessories

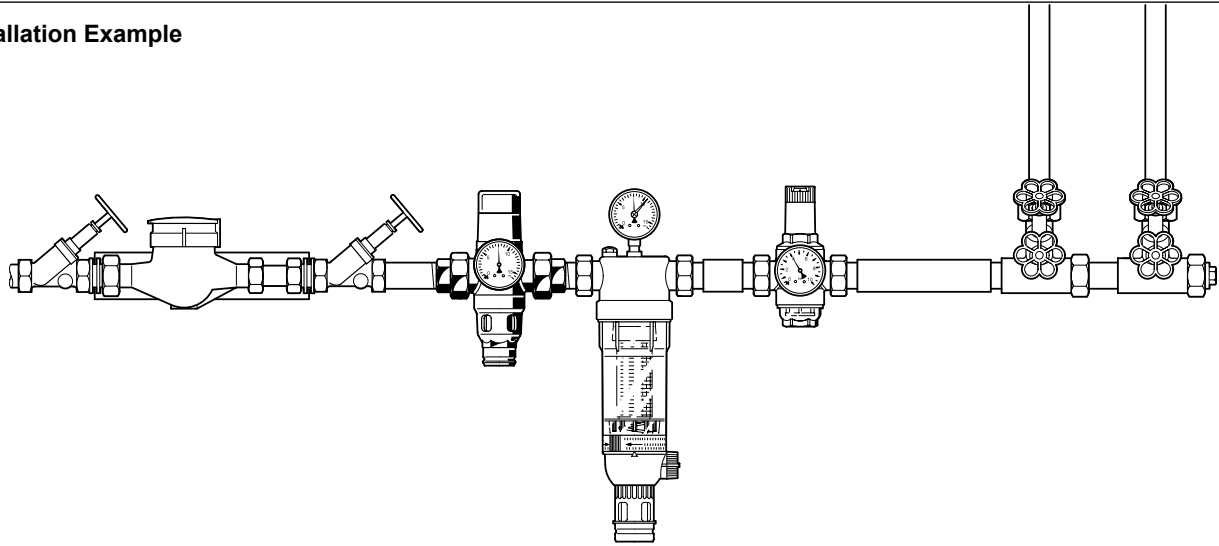
ZT 295 A Soldered union connectors (pack of 2)

- ZT 295 A - 1/2" (for 15 mm Ø pipe)
- ZT 295 A - 3/4" (for 22 mm Ø pipe)
- ZT 295 A - 1" (for 28 mm Ø pipe)
- ZT 295 A - 1 1/4" (for 35 mm Ø pipe)
- ZT 295 A - 1 1/2" (for 42 mm Ø pipe)
- ZT 295 A - 2" (for 54 mm Ø pipe)

M 07 Pressure gauge

Housing 63 mm Ø, rear connection G 1/4"
 Range: 0 - 4 bar, 0 - 10 bar, 0 - 16 bar, 0 - 25 bar
 Please indicate upper value of pressure range when ordering

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
 - This orientation ensures optimum 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.

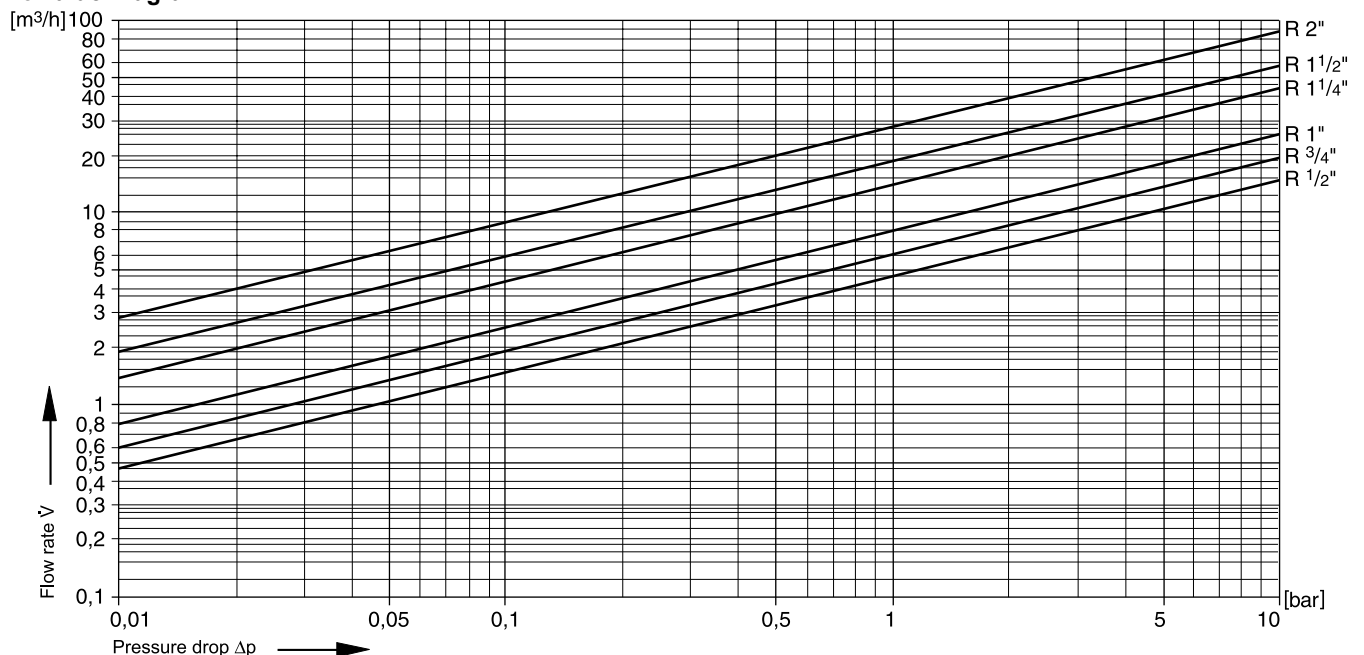
Typical Applications

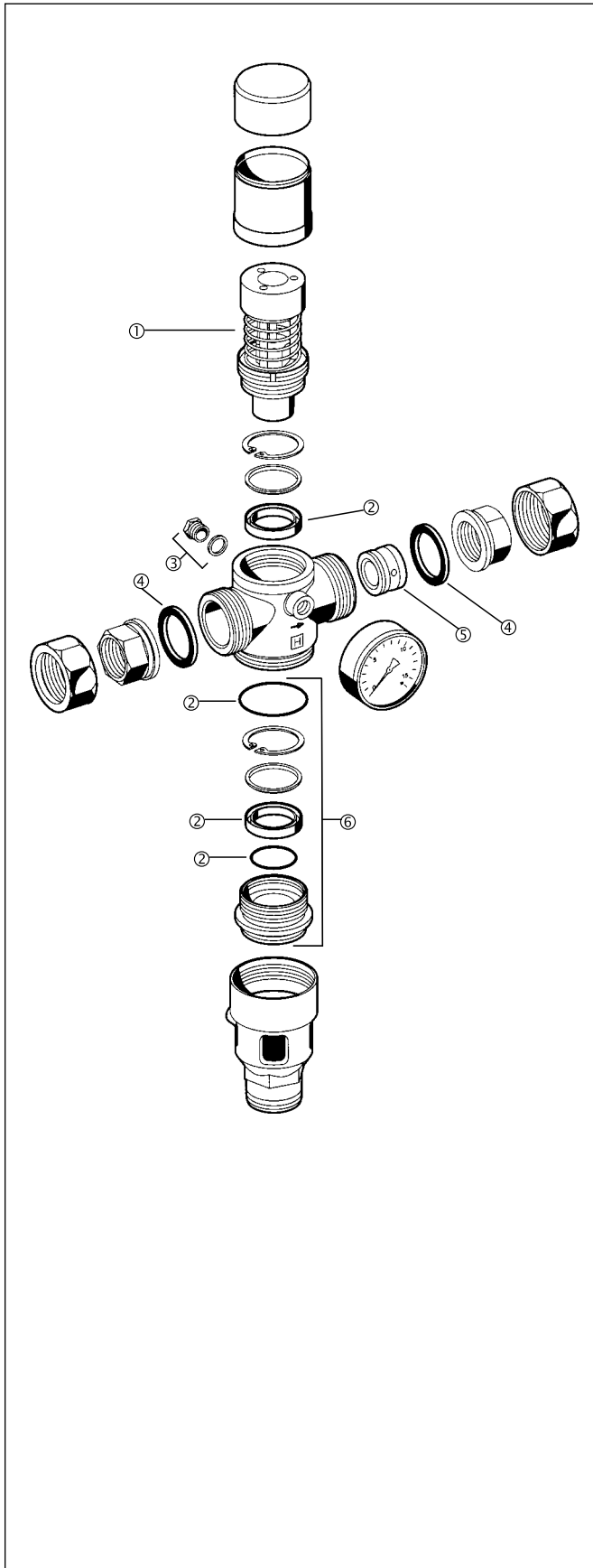
R 295 backflow preventers are suitable for supplies to buildings and within the scope of their specification can also be used for commercial and industrial applications.

The following are some typical uses:

- Household bath and shower systems using hoses
- Softening and deacidification plants without DVGW approval
- Garden tap connections
- Drink vending machines
- Hot water boilers, automatic pressure boilers
- Heating system filling assemblies without DVGW approval, water without inhibitors
- Air conditioners

kvs-value Diagram





Spare Parts R 295 Backflow Preventers

Description	Nominal size	Part number
① Valve insert complete	0.5 bar	1/2" - 1" R 295 A - 3/4A 1 1/4" - 2" R 295 A - 1 1/4A
	1.0 bar	1/2" - 1" R 295 A - 3/4B 1 1/4" - 2" R 295 A - 1 1/4B
	1.5 bar	1/2" - 1" R 295 A - 3/4C 1 1/4" - 2" R 295 A - 1 1/4C
	2.0 bar	1/2" - 1" R 295 A - 3/4D 1 1/4" - 2" R 295 A - 1 1/4D
	② Seal ring set	1/2" - 1" 0901055 1 1/4" - 2" 0901056
	③ Hexagonal plug with seal ring (pack of 5)	1/2" - 2" S 06 M - 1/4
④ Union seal washer	1/2"	5351200
	3/4"	5351300
	1"	5166300
	1 1/4"	5162900
	1 1/2"	5163000
	2"	5163100
⑤ Inlet non return valve	1/2"	RV 282 E - 3/4A
	3/4"	RV 282 E - 1A
	1"	RV 282 E - 1A
	1 1/4"	RV 276 - 1 1/4
	1 1/2"	RV 276 - 1 1/2
	2"	RV 276 - 2
⑥ Drain connector	1/2" - 1"	0901340
	1 1/4" - 2"	0901341