



## BA295S

### Backflow Preventer

Compact construction with threaded connectors

#### APPLICATION

Backflow preventers of this type are suitable for the protection of drinking water systems against back pressure, backflow and back syphonage.

They can be used for residential buildings, industrial and commercial purposes within the scope of their specification. Fluids up to and including liquid category 4 to EN 1717 are protected.

#### APPROVALS

- DVGW
- NF
- WRAS
- KIWA
- BELGAQUA
- VR

#### SPECIAL FEATURES

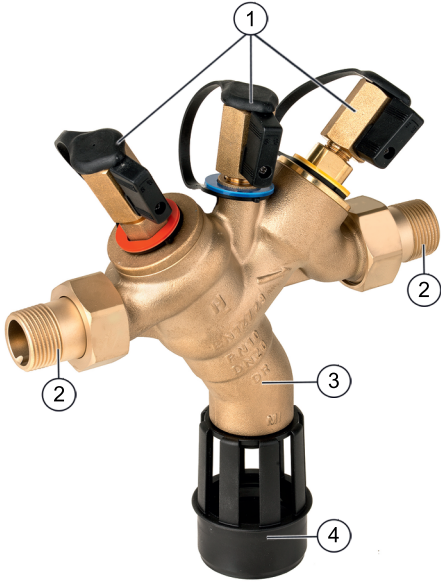
- Approved according to EN 12729 except BA295S-1B
- Optimal protection of the drinking water supply system
- Integrated inlet strainer
- Inlet check valve and discharge valve are combined in one cartridge
- Low maintenance effort - cartridge insert and valve insert are completely replaceable
- Optimized design prevents water stagnation in normal operation
- Compact construction
- Easy access to all internal components
- Low pressure loss and high flow rate
- ACS certified
- All materials are KTW approved
- Approved by TÜV LGA for low noise, Group 1 without limitation



#### TECHNICAL DATA

<b>Media</b>	
Medium:	Drinking water
<b>Connections/Sizes</b>	
Connection size:	1/2" - 2"
Discharge pipe connection:	DN50 for connection sizes 1/2" - 1 1/4" DN70 for connection sizes 1 1/2" - 2"
<b>Pressure values</b>	
Inlet pressure:	1.5 bar - 10.0 bar
<b>Operating temperatures</b>	
Max. operating temperature medium:	65 °C (WRAS 60 °C)
<b>Specifications</b>	
Installation position:	Horizontal with discharge valve downwards

## CONSTRUCTION

Overview	Components	Materials	
	<b>1</b>	Three ball valves for the connection of a differential pressure gauge	Brass
	<b>2</b>	Connection fittings	Brass
	<b>3</b>	Housing	Dezincification-resistant brass
	<b>4</b>	Discharge connection	High-quality synthetic material
<b>Not depicted components:</b>			
		Integral strainer, mesh size approx. 200 µm	Stainless steel
		Valve cartridge with integral check valve and discharge valve	High-grade synthetic material
		Outlet check valve	High-grade synthetic material
		Sealing elements	Elastomer materials suitable for drinking water

## METHOD OF OPERATION

BA type backflow preventers are divided into three pressure zones. The pressure in zone ① is higher than in zone ②, which in turn is higher than in zone ③. A discharge valve is connected to zone ② which opens at the latest when the differential pressure between zones ① and ② drops to 0.14 bar. The water from zone ② discharges to atmosphere, both check valves close and therefore separate zone ② from zone ① and ③. In this way the danger of back pressure or back siphonage into the supply network is prevented. The pipework connection is interrupted and the drinking water network is protected.

## 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 % *

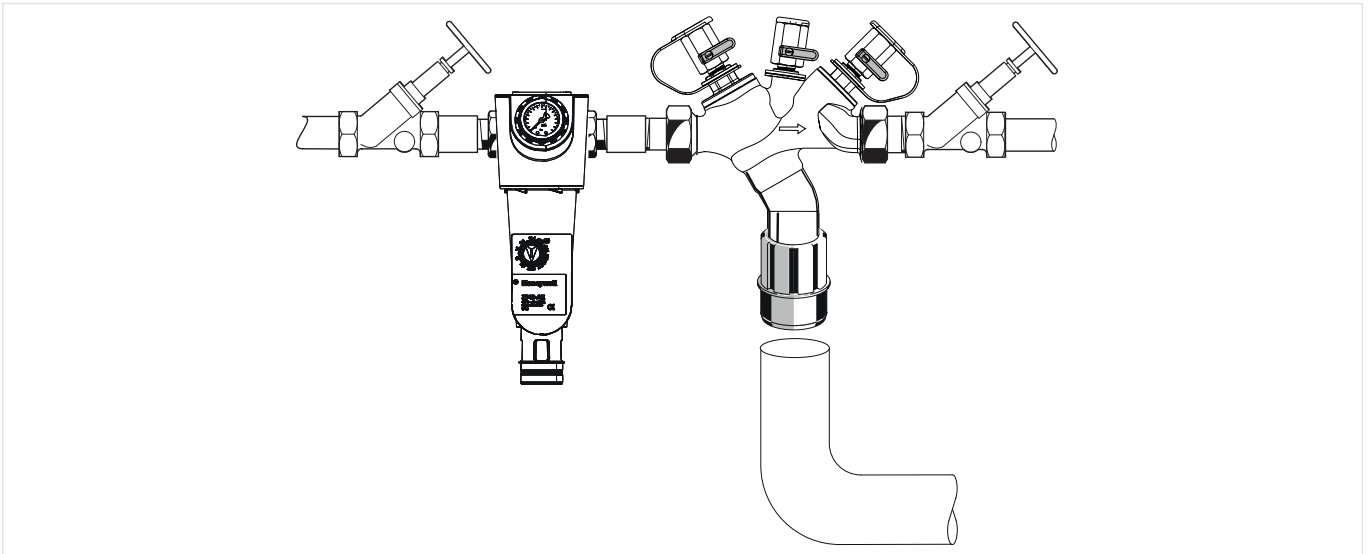
\*non condensing

## INSTALLATION GUIDELINES

### Setup requirements

- Install shut-off valves before and after backflow preventer
- Install in horizontal pipework with the discharge valve downwards
- Ensure good access
  - Simplifies maintenance and inspection
- If a fine filter is not installed in the drinking water system, the installation of a filter with a mesh width of 100 µm is recommended in front of the backflow preventer
- In case of inlet-pressure fluctuations or a inlet pressure over 10 bar, we recommend to install a pressure reducing valve upstream of the backflow preventer
- Do not install in places where flooding can occur
- The installation environment should be protected against frost and ventilated well
- Install discharge pipework which has adequate capacity
- In order to avoid flooding, it is recommended to arrange a permanent, professionally dimensioned wastewater connection
- These armatures need to be maintained regularly

## Installation Example



## TECHNICAL CHARACTERISTICS

### Pressure drop characteristics

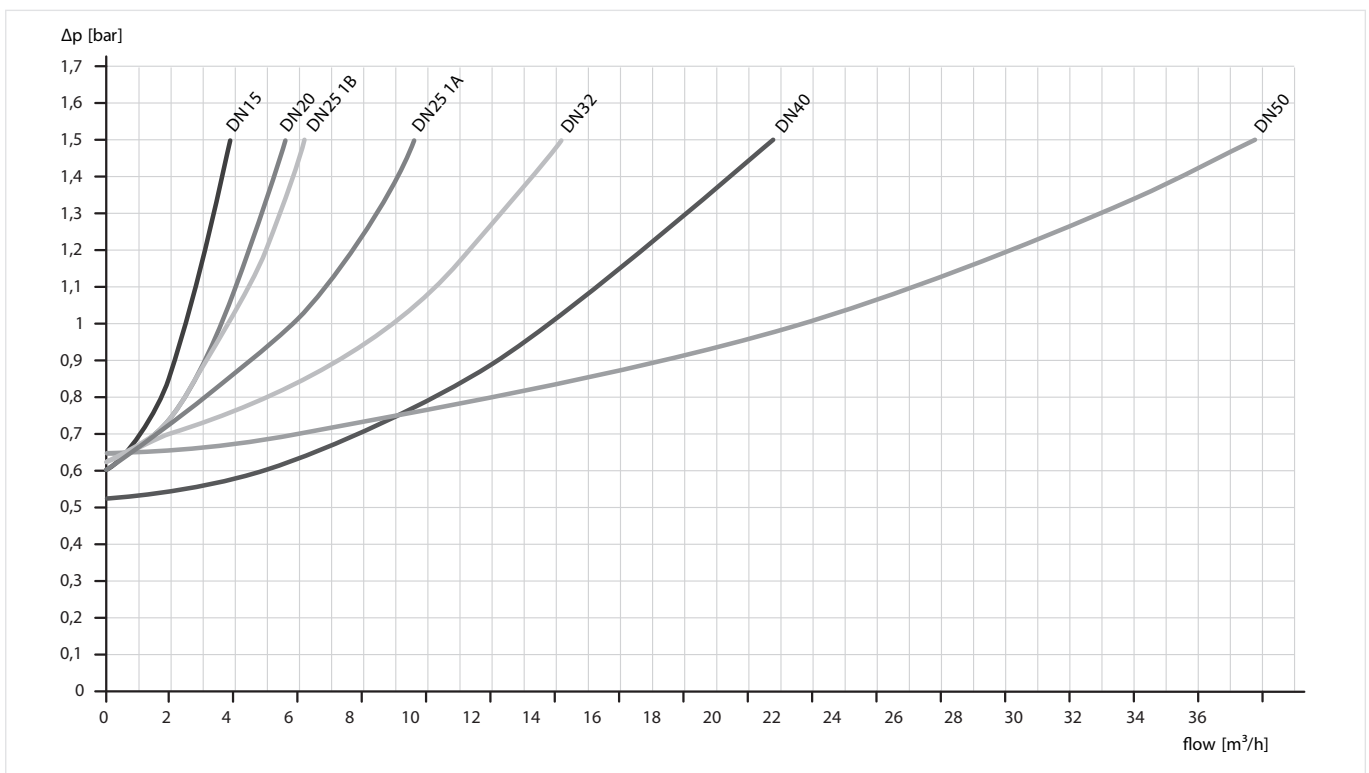
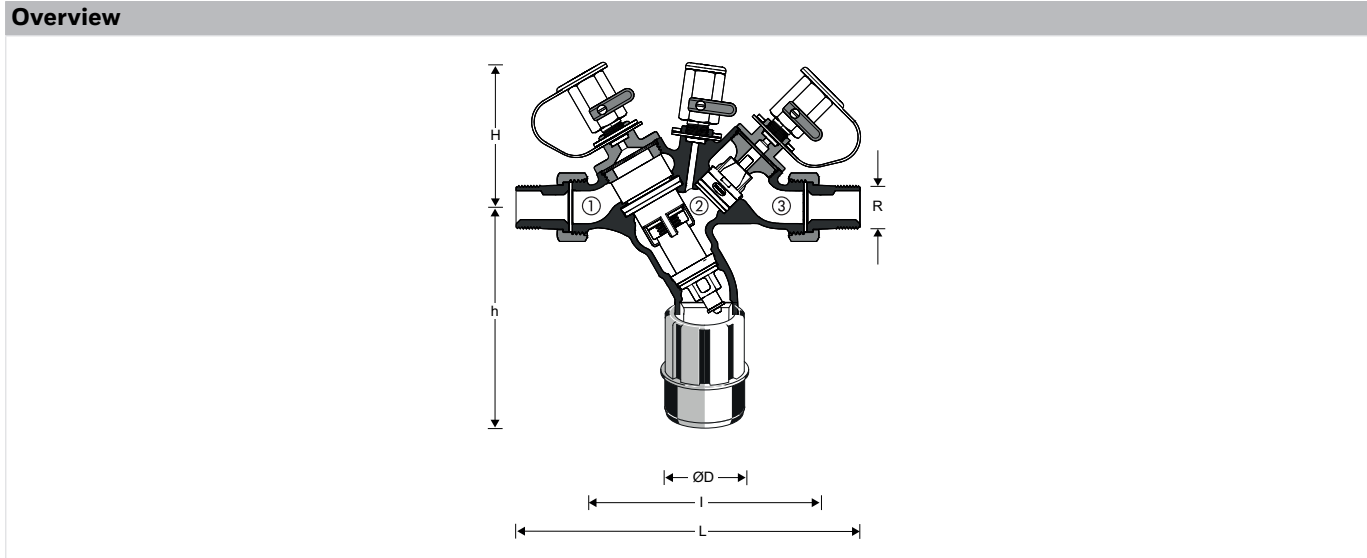


Fig. 1 Pressure drop within the valve in dependency of the flow rate and the used connection size

## DIMENSIONS



Parameter		Values						
Connection size:	R	1/2"	3/4"	1", B-version	1", A-version	1 1/4"	1 1/2"	2"
Nominal size:	DN	50	50	50	50	50	70	70
k <sub>VS</sub> -value:	m <sup>3</sup> /h	2.4	3.5	3.5	5.8	8.5	13.5	21.0
Weight:	kg	1.6	1.8	2.1	2.8	3.3	5.9	7.2
Dimensions:	L	195	208	225	247	272	322	348
	l	135	140	146	168	180	226	231
	H	88	88	88	103	103	126	126
	h	143	143	143	174	174	217	217

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 backflow preventer is available in the following sizes: 1/2", 3/4", 1", 1 1/4" 1 1/2" and 2".


- standard
- not available

		BA295S-...A	BA295S-1B	BA295S-...AGB
Connection type:	Standard version acc. EN 12729 with threaded connections 1/2" - 2"	•	-	-
	Special version with threaded connections 1"	-	•	-
	Standard version acc. EN 12729, all materials acc. WRAS, with threaded connections 1/2" - 2"	-	-	•

Note: ... = space holder for connection size

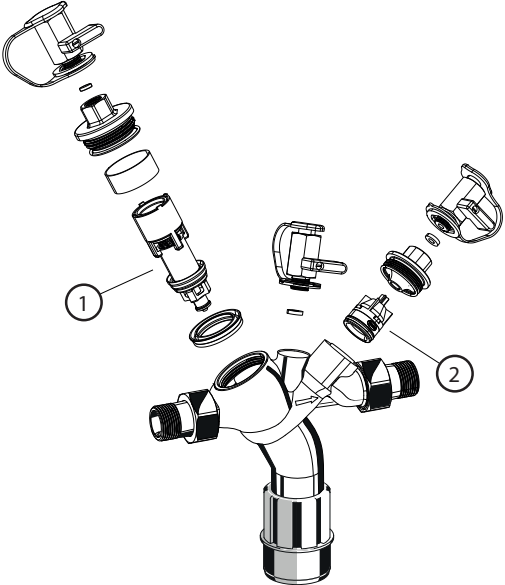
Note: Ordering number example for 1" and type A valve: BA295S-1A

**Accessories**

	Description	Dimension	Part No.
	<b>TK295</b> <b>Test kit</b> Electronic pressure measuring device with digital indicator, battery-operated. With case and accessories, ideal for inspection and maintenance of backflow preventer type BA.		
			TK295

**Spare Parts**

Backflow preventer BA295S

Overview	Description	Dimension	Part No.
	<b>1 Cartridge insert complete</b>		
		1/2", 3/4", 1" B-Version	0904141
		1" A-Version, 1 1/4"	0904142
		1 1/2", 2"	0904143
	<b>2 Check valve</b>		
		1/2", 3/4", 1" B-Version	0904144
		1" A-Version	0904145
		1 1/4"	0904146
		1 1/2"	0904147
		2"	0904148

**For more information**

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