BA295S

Backflow Preventer Compact Construction with Threaded Connectors

Product Specification Sheet



Construction

The backflow preventer consists of:

- Housing
- Integrated strainer, mesh size approx. 200 μm
- Valve cartridge with integrated check valve and discharge valve
- Outlet check valve
- Tree ball valves for the connection of a differential pressure gauge
- Connection fittings
- Discharge connection

Materials

- · Dezincification resistant brass housing
- · Valve cartridge in high-grade synthetic material
- Outlet check valve in high-grade synthetic material
- Brass ball valves
- Sealing elements made of elastomer materials suitable for drinking water
- Discharge connection in high-grade synthetic material

Application

Backflow preventers of this type are suitable for the protection of

drinking water systems against back pressure, back flow 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 according to EN 1717 are protected.

Special Features

- DVGW-approval requested
- NF approval requested
- Approved according to EN12729 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 outlet check valve are completely replaceable
- Optimized design prevents water stagnation
- Compact construction
- Easy access to all internal components
- Low pressure loss and high flow rate
- Triple security two check valves and a discharge valve separate the backflow preventer into three pressure zones
- Approved for noise level protection, class 2
- Meets KTW recommendations for potable water

Range of Application

Medium	Water
Maximum inlet pressure	10.0 bar
Maximum inlet pressure	1.5 bar

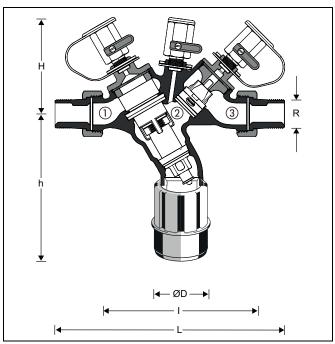
Technical Data

Connection size

Installation position	Horizontal with discharge valve downwards
Max. operating temperature	65 °C
Discharge pipe connection	DN50 for connection sizes $1/2$ " - $11/4$ " DN70 for connection sizes $11/2$ " - 2 "

1/2" - 2"

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, back flow or back syphonage into the supply network is prevented. The pipework connection is interrupted and the drinking water network is protected.

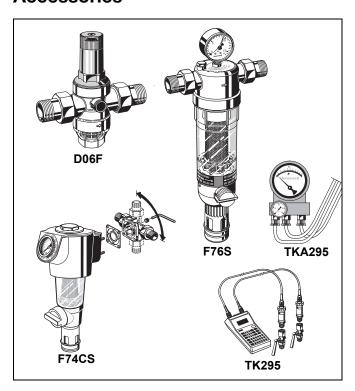
Options

BA295S- ... A = Standard version acc. EN12729 with threaded connections ½" - 2"

BA295S-1B = Special version with threaded connections 1" BA295S- ... ABG = Standard version acc. EN12729, all materials acc. WRAS, with threaded connections $\frac{1}{2}$ " - 2"

Connection size	R	1/2"	3/4"	1", B-version	1", A-version	11⁄4"	1½"	2"
Weight	approx. kg	1,6	1,8	2,1	2,8	3,3	5,9	7,2
Dimensions	mm							
	L	195	208	225	247	272	322	348
	I	135	140	146	168	180	226	231
	Н	88	88	88	103	103	126	126
	h	143	143	143	174	174	217	217
	D	50	50	50	50	50	70	70

Accessories



D06F Pressure reducing valve

Noise protected pressure reducing valve with setting scale. Maximum inlet pressure 16 bar, with brass filter bowl 25 bar, outlet pressure range 1.5 - 6.0 bar

A = With clear filter bowl up to 40 $^{\circ}$ C / 16 bar

B = With brass filter bowl up to 70 °C / 25 bar

TK295 Test kit

Electronic pressure measuring device with digital indicator, battery-operated.

With case and accessories, ideal for inspection and maintenance of backflow preventer type BA.

TKA295 Test kit

Analogue pressure measuring device with differential pressure display.

With case and accessories, ideal for inspection and maintenance of backflow preventer type BA.

F76S Fine filter, reverse rinsable

AA = With clear filter bowl

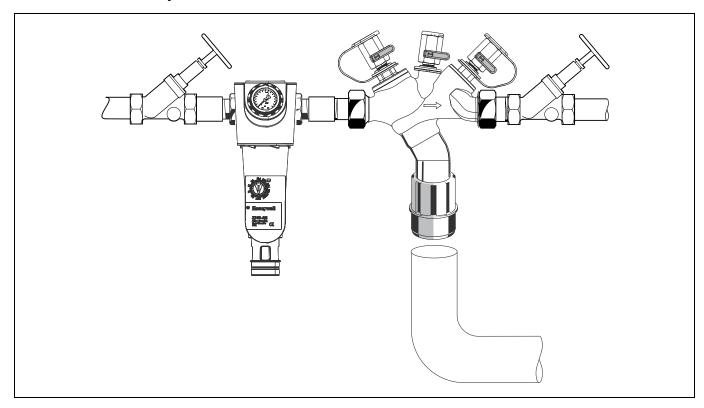
AAM = With red bronze filter bowl

F74CS Fine filter

Reverse rinsable fine filter with rotatable connection piece

2 http://ecc.emea.honeywell.com EN0H-1252GE23R0815

Installation Examples



Installation Guidelines

- · Install shutoff 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

Typical Applications

Backflow preventers are ideally suited for industrial and commercial applications. Fluids up to and including liquid category 4 according to EN 1717 are protected.

However they can also be used for supplies to residential buildings within the scope of their specification.

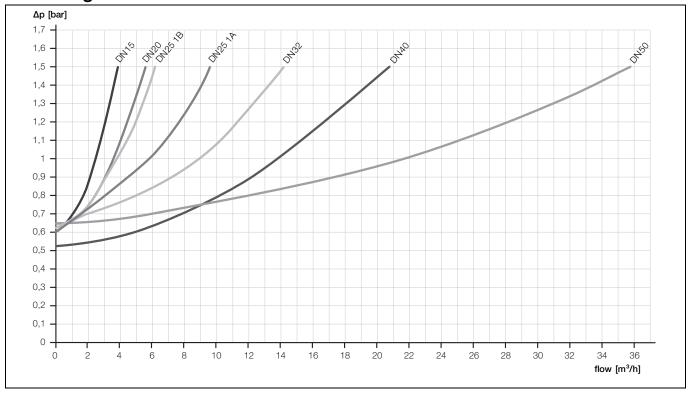
The following are some typical applications:

- Chemical mixing plant
- Chemical cleaning appliances
- Softening and deacidification plant without DVGW approval.
- Film development plant without DVGW certification
- Galvanic bath
- Boilers and automatic pressure cooker equipment
- Heating filling systems, water with inhibitors
- High pressure cleaners with chemical supplementation

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- Laboratory workbenches
- Swimming pools

Flow Diagram



Spare Parts



Backflow preventer BA295S

No.	Description	Dimension	Part No.
1	Cartridge insert complete	½", ¾", 1" B-Version	0904141
		1" A-Version, 11/4"	0904142
		1½", 2"	0904143
2	Check valve	½", ¾", 1" B-Version	0904144
		1" A-Version	0904145
		11/4"	0904146
		1½"	0904147
		2"	0904148

Environmental and Combustion Controls

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