

Product information

Protective module type BA with threaded connection for liquid category 4 according to SS-EN 1717. Protective device in lead-free brass with integrated dirt filter for compact construction.

Dimension range (DN)	15 - 50
PN	10
Temperature (°C)	0 - 65
Main material	Brass



## Area of use

Backflow preventers are used to protect internal and external plumbing systems from backflow and overpressure. The protective cover can handle liquids up to category 4. The backflow preventer is of type BA in accordance with SS-EN 1717. AT 1168C has an integrated dirt filter and is therefore very suitable for compact installations. The protective device is made of lead-free brass.

## Tender text

### **PSG.260 Composite backflow prevention devices**

Backflow preventer AT 1168C...M (DN=...), Protection module complete with protection device type BA with double check valves and intermediate pressure-controlled chamber with drainage, integrated dirt filter, inlet and outlet valves. PN10 in threaded design. For maximum protection coverage of liquid category 4 according to SS-EN 1717. Backflow preventer in lead-free brass.

## Quality assurance

AFS 2023:5, 8 paragraf, Fluid category 4, SS-EN 1717

Compliance with SS-EN 1717.

DIN/DVGW approval number DW-6305 BN 0290.

**Product marking - Backflow preventer AT 1168C-:** Manufacturer, DN, PN, flow direction, manufacturer and manufacturing number.

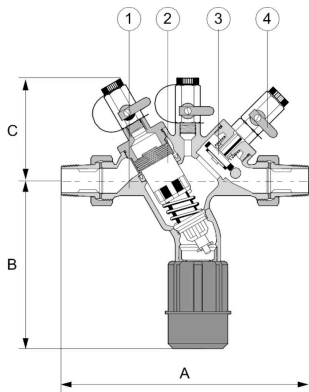
Separate inspection nameplate.

**Product marking - Ball valve AT 3700-:** Brand, PN and DN.

## Energy and environment declaration

**SundaHus:** B

Pos	Component	Material
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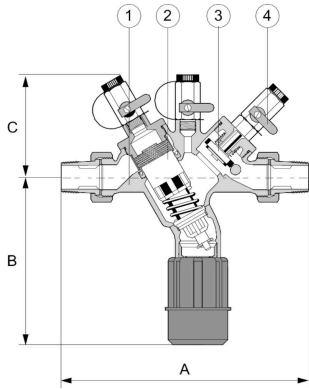


Pos	Component	Material
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## Measurements and weight

**Dimension range (DN):** 15 - 50

DN	A	B	C	Net weight (kg)
15	269	143	88	2
20	300	143	88	2.4
25	329	174	103	3.2
32	404	174	103	3.5
40	476	217	126	8.3
50	530	217	126	10.8



## Function and design

Backflow preventer type BA covers the risks up to liquid category 4 when connecting to tap water, i.e. "Liquid that poses a health risk due to the presence of one or more toxic or highly toxic substances or one or more radioactive, mutagenic or carcinogenic substances".

The protective device has double check valves and an intermediate chamber with drainage (the drainage valve is combined in an insert with the inlet check valve). The protective devices work with three different pressure zones. The pressure in zone 1 is higher than in zone 2, which is higher than in zone 3. A drainage valve is connected in zone 2 and opens when the pressure difference between zone 1 and zone 2 drops to 0.14 bar. The water in zone 2 is drained to the atmosphere. This prevents siphonage or overpressure backflow into the system.

The backflow preventer must be installed as a complete protection module. The protection module includes a type BA protective device together with an integrated dirt filter. Shut-off valves are included for the inlet and outlet. It is an absolute requirement that the backflow preventer is installed as a protection module.

## Technical data

**Main material:** Brass**Included materials:** Brass**Temperature (°C):** 0 - 65**PN:** 10**Connection:** Internal thread ISO 228-1 (G, BSPP)**ETIM classification:** EC004501 - Backflow preventer

Item number	Connection 1	Connection 1 - spec.	Connection 2	Connection 2 - spec.	Connection notes	Execution	KVS
1168C15	External thread ISO 228-1 (G, BSPP)	1/2	External thread ISO 228-1 (G, BSPP)	1/2		Protective devices	2.4
1168C20	External thread ISO 228-1 (G, BSPP)	3/4	External thread ISO 228-1 (G, BSPP)	3/4		Protective devices	3.5
1168C25	External thread ISO 228-1 (G, BSPP)	1	External thread ISO 228-1 (G, BSPP)	1		Protective devices	3.5
1168C32	External thread ISO 228-1 (G, BSPP)	1 1/4	External thread ISO 228-1 (G, BSPP)	1 1/4		Protective devices	8.5
1168C40	External thread ISO 228-1 (G, BSPP)	1 1/2	External thread ISO 228-1 (G, BSPP)	1 1/2		Protective devices	13.5
1168C50	External thread ISO 228-1 (G, BSPP)	2	External thread ISO 228-1 (G, BSPP)	2		Protective devices	21

DN	KVS	Connection 1	Connection 1 - spec.	Connection 2	Connection 2 - spec.
10	5.8	Internal thread ISO 228-1 (G, BSPP)	3/8	Internal thread ISO 228-1 (G, BSPP)	3/8
15	15.7	Internal thread ISO 228-1 (G, BSPP)	1/2	Internal thread ISO 228-1 (G, BSPP)	1/2
20	30.8	Internal thread ISO 228-1 (G, BSPP)	3/4	Internal thread ISO 228-1 (G, BSPP)	3/4
25	49.3	Internal thread ISO 228-1 (G, BSPP)	1	Internal thread ISO 228-1 (G, BSPP)	1
32	79	Internal thread ISO 228-1 (G, BSPP)	1 1/4	Internal thread ISO 228-1 (G, BSPP)	1 1/4

DN	KVS	Connection 1	Connection 1 - spec.	Connection 2	Connection 2 - spec.
40	125.3	Internal thread ISO 228-1 (G, BSPP)	1 1/2	Internal thread ISO 228-1 (G, BSPP)	1 1/2
50	224.2	Internal thread ISO 228-1 (G, BSPP)	2	Internal thread ISO 228-1 (G, BSPP)	2

## Installation and maintenance

Please carefully consider the following installation instructions:

- A backflow preventer must never be installed alone (as a protective device) but must always be installed as a protective module to allow for inspection according to the standard SS-EN 1717. The installation drawing shows a protective module with two shut-off valves located on either side of the protective device. These are needed for maintenance of the unit. A dirt filter must be installed between the shut-off valve on the upstream side (inlet side) and the backflow preventer (for 1168C, the dirt filter is integrated). The filter's cleaning plug should be replaced with a drain valve.
- The protective module should be installed in a suitable location in the drinking water installation, as close as possible to the potential source of risk.
- The protective module should be installed horizontally with the drainage opening facing downwards.
- Ensure that the flow arrow corresponds to the flow direction.
- The protective module must not be installed where flooding is possible.
- The protective module should be installed in a ventilated environment (not contaminated air).
- The protective module should be protected against frost and high temperatures.
- All backflow preventers will drain at some point. The drainage valve outlet is connected with an air gap to a drain with the same dimension as the backflow preventer's pipe holder. The connection dimension for the protective device's drainage is indicated under dimensions and weight.
- The drain should have a capacity that can handle the drainage flow.
- The protective module can only be installed for expected backflows that do not exceed the device's drainage capacity.
- The protective module should be installed so that it is not subjected to external tensile or compressive forces.
- The protective module should be easily accessible and should be mounted between 0.5 to 1.5 m above the floor to facilitate inspection and service.
- The installation drawing's H dimension indicates the minimum free space required above the protective device for accessibility for service and easy access to the pressure measurement outlets on the protective device's top side. The H dimension is the total height of the protective module.
- Tap points after the backflow preventer should be marked with "NOT DRINKING WATER" to prevent consumption of drinking water in a contaminated zone. Note that a solenoid valve or a quick-closing valve before or after the backflow preventer or a weak pipe layout in connection with a long stretch can create an imbalance in the system with resulting pressure surges. An

additional check valve installed before or after the backflow preventer may possibly eliminate the problem. After installation, a functional check is performed. The property owner has an obligation to notify the water supplier when connecting a backflow preventer of type BA.

### Please feel free to contact us

We answer your questions by e-mail and telephone. No question is too small, no challenge is too big. You are always welcome at Armatec.

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