

Backflow preventer AT 1167B-



resideo

Product information

Protective device type BA with flanged connection for liquid category 4 according to SS-EN 1717.



| | |
|-----------------------------|-----------|
| Dimension range (DN) | 65 - 200 |
| PN | 10 |
| Temperature (°C) | 0 - 65 |
| Main material | Cast iron |

Area of use

Backflow preventers are used to protect internal and external plumbing systems from backflow and pressure backflow. The protection is of type BA in accordance with SS-EN 1717. This product is a reliable backflow preventer that meets the requirements for liquid category 4. It is suitable for use in applications for tap water with pressure class PN10 and a temperature of up to 65°C. The product is manufactured to the highest quality standards to ensure safe and effective operation. With this backflow preventer, you can be sure that your system is functioning optimally. It should be installed as a complete protection module to meet the requirements.

Tender text

PSG.26 Backflow preventers

Backflow prevention device AT 1167B-...(or 1167R...M for stainless steel construction) DN.... Complete protection module consisting of BA type protection devices with double check valves and an intermediate pressure-controlled chamber with drainage, inlet and outlet valves, and a dirt filter with a drainage valve. PN 10 in flanged design. For maximum protection coverage of liquid category 4 according to SS-EN 1717. AT 1167B is powder-coated inside and out.

Quality assurance

AFS 2023:5, 8 paragraf, Fluid category 4, SS-EN 1717, PED 2014/68/EU art 4.3
DVGW, BELGAQUA, NF, KIWA, WRAS, SVGW, VdS are all certification marks for products related to water supply and sanitation. These marks indicate that the products have been tested and approved according to specific standards set by the respective organizations.

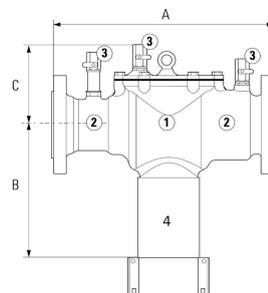
Product marking: Manufacturer, DN, PN, flow direction, manufacturer and manufacturing number.
Separate control nameplate.

Energy and environment declaration

SundaHus: C-

Reach date: 6/14/2023 12:00:00 AM

Pos **Component** **Material**



Measurements and weight

Dimension range (DN): 65 - 200

| DN | A | B | C | Net weight (kg) |
|-----|-----|-----|-----|-----------------|
| 65 | 356 | 246 | 157 | 23.9 |
| 80 | 440 | 275 | 172 | 32.7 |
| 100 | 530 | 296 | 190 | 44.6 |
| 150 | 630 | 314 | 224 | 70.9 |
| 200 | 763 | 346 | 259 | 114.1 |

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

Technical data

Main material: Cast iron

Included materials: Brass, Cast iron, Stainless steel, Plastic, Rubber

Included material code: Acid resistant stainless steel AISI 316Ti (1.4571), EPDM (ethylene propylene diene monomer rubber)

Temperature (°C): 0 - 65

PN: 10

Connection: Flanged EN1092

ETIM classification: EC004501 - Backflow preventer

MagiCAD link: <https://redir.magicad.cloud/product/0dc21c66-c1ad-427d-9a33-c8e36694ca9d>

Technical Characteristics

Pressure drop characteristics

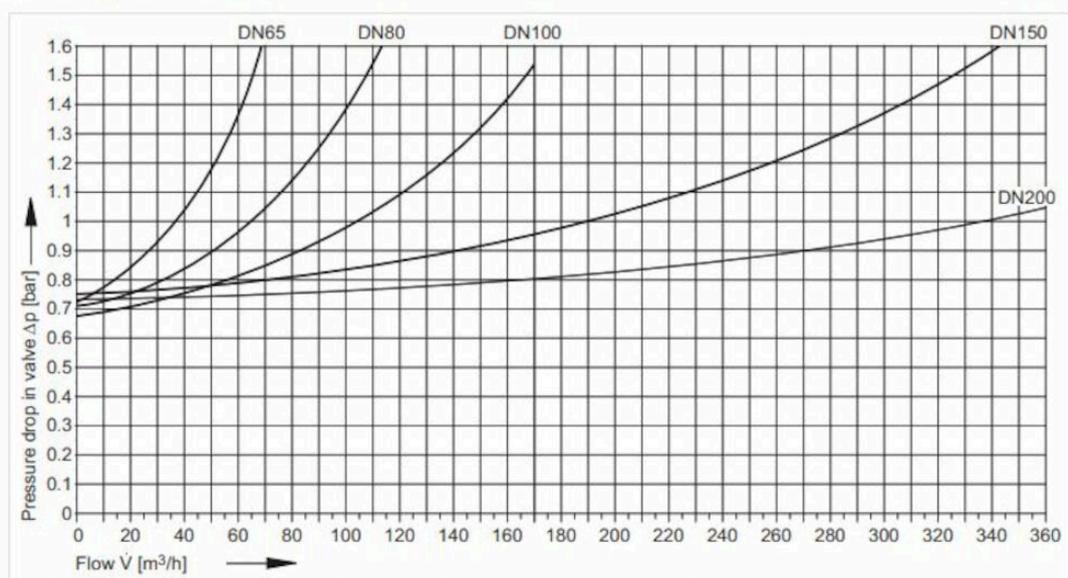


Fig. 1 Pressure drop within the valve in dependency of the flow rate and the used connection size

Technical data

| Item number | DN | KVS |
|-------------|-----|-------|
| 1167B65 | 65 | 35.8 |
| 1167B80 | 80 | 54.3 |
| 1167B100 | 100 | 108 |
| 1167B150 | 150 | 190.9 |
| 1167B200 | 200 | 339.3 |

Installation and maintenance

Flowdirection: Uni-directional

Possible mounting position: Horizontal

Possible mounting position notes: "Shall be mounted with drainage downwards."

In accordance with SS-EN1717:2025, which further refers to SS-EN 806-5, and with regard to maintenance, backflow protection/modules and other related fittings shall be checked, tested, and maintained in accordance

with Annexes A, B, and C. Annex A describes the frequency, Annex B describes what is to be performed, and Annex C describes other equipment. This means for protection of type:

AB Inspection and maintenance every 6 months.

BA Inspection every 6 months and routine maintenance annually.

CA Inspection every 6 months and routine maintenance annually.

EA Inspection and routine maintenance annually.

Please carefully follow 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 valve for draining.
- 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 mounted horizontally with the drainage opening 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 accommodate 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 above the protective device required for accessibility for service and easy access to the pressure measurement outlets on the protective device's top. The H dimension is the protective module's total height.
- 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.

Maintenance and spare parts

Inadequate or incorrect maintenance of a tap water installation, including backflow preventers, can result in deteriorated tap water quality. Regular (annual) maintenance of the protective module must therefore be carried out to ensure the long-term function of the protectors. This is a requirement according to the standard SS-EN 1717. The annual inspection must be carried out by a trained and Armatec AB-approved inspector.

Membrane seals in EPDM.

For all installed backflow preventers of type BA, annual inspection procedures must be established and inspection reports submitted to the water supplier.

Armatec's service technicians are specially trained and certified for repair and service inspection of backflow preventers. We offer to perform the service inspection and ensure that the necessary reporting documentation is provided.

The company's management system
is certified by DNV
ISO 9001 • ISO 14001

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