

Product information

Intended for sprinkler applications. Protective device type BA with flanged connection for liquid category 4. Lever and worm gear have end position contacts. Mesh width on filter is adapted.

Dimension range (DN)	65 - 200
PN	10
Temperature (°C)	0 - 65
Main material	Compound unit

Area of use

Backflow prevention for sprinkler applications. Used to protect internal and external plumbing systems against backflow and pressure backflow. Protective coverage for liquid up to category 4. The backflow prevention is of type BA in accordance with SSEN 1717.

Tender text

PSG.260 Composite backflow prevention devices

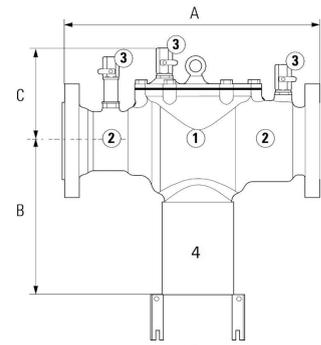
Backflow prevention device AT 1167-...MS (or 1167R...MS for stainless steel execution) DN.... Complete protection module consisting of protection device type BA with double check valves and intermediate pressure-controlled chamber with drainage, inlet and outlet valves, and dirt filter with valve for drainage. PN 10 in flanged execution. For maximum protection coverage of liquid category 4 according to SS-EN 1717. AT 1167B is powder-coated inside and out. Lever and worm gear have end position contacts. Mesh width on filter is adapted.

Quality assurance

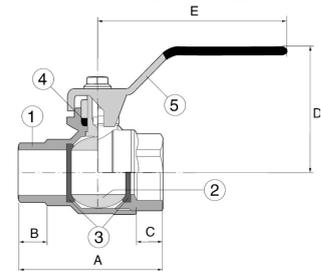
Fluid category 4, SS-EN 1717

Product marking: Manufacturer, DN, PN, flow direction, manufacturer's serial number. Separate inspection tag.

Pos	Component	Material
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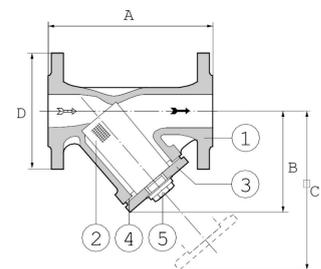
Pos	Component	Material
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Butterflyvalve List of details

Pos	Component	Material
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Pos	Component	Material
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Measurements and weight

Dimension range (DN): 65 - 200

DN	65	80	100	150	200
A	738	842	984	1222	1483
Net weight (kg)	50	66	85	152	258

Function and design

Backflow preventer type BA covers the risks up to liquid category 4 when connecting 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 to 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.

The sprinkler module is adapted to the requirements for water sprinkler systems. The rotary valve valves are equipped with end position switches for indication of open/closed valve to meet the requirements according to SBF 120. Supplied with a filter insert with a mesh width of 8.0mm.

Technical data

Main material: Compound unit

Included materials: Compound unit

Temperature (°C): 0 - 65

PN: 10

Connection: Flanged EN1092

ETIM classification: EC004501 - Backflow preventer

Backflow preventer AT 1167B- 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

Item number	KVS	Connection 1	Connection 1 - spec.	Connection 2	Connection 2 - spec.
3640-10	5.8	Internal thread ISO 228-1 (G, BSPP)	3/8	External thread ISO 228-1 (G, BSPP)	3/8
3640-15	15.7	Internal thread ISO 228-1 (G, BSPP)	1/2	External thread ISO 228-1 (G, BSPP)	1/2
3640-20	30.8	Internal thread ISO 228-1 (G, BSPP)	3/4	External thread ISO 228-1 (G, BSPP)	3/4
3640-25	49.3	Internal thread ISO 228-1 (G, BSPP)	1	External thread ISO 228-1 (G, BSPP)	1

Item number	KVS	Connection 1	Connection 1 - spec.	Connection 2	Connection 2 - spec.
3640-32	79	Internal thread ISO 228-1 (G, BSPP)	1 1/4	External thread ISO 228-1 (G, BSPP)	1 1/4
3640-40	125.3	Internal thread ISO 228-1 (G, BSPP)	1 1/2	External thread ISO 228-1 (G, BSPP)	1 1/2
3640-50	224.2	Internal thread ISO 228-1 (G, BSPP)	2	External thread ISO 228-1 (G, BSPP)	2

Butterflyvalve Technical data

Item number	KVS	Connection according to ISO 5211	Stem measurments	Required torque (Nm)	Leakagerate
2313BS40	95	F07	10x10mm	4	Rate A acc. to EN 12266-1:2012
2313BV40	95	F07	9x9mm	4	Rate A acc. to EN 12266-1:2012
2313BS50	95	F07	10x10mm	6	Rate A acc. to EN 12266-1:2012
2313BV50	95	F07	9x9mm	6	Rate A acc. to EN 12266-1:2012
2313BS65	231	F07	10x10mm	10	Rate A acc. to EN 12266-1:2012
2313BV65	231	F07	9x9mm	10	Rate A acc. to EN 12266-1:2012
2313BS80	491	F07	10x10mm	16	Rate A acc. to EN 12266-1:2012
2313BV80	491	F07	9x9mm	16	Rate A acc. to EN 12266-1:2012
2313BS100	690	F07	12x12mm	29	Rate A acc. to EN 12266-1:2012
2313BV100	690	F07	11x11mm	29	Rate A acc. to EN 12266-1:2012
2313BS125	1450	F07	12x12mm	45	Rate A acc. to EN 12266-1:2012

Item number	KVS	Connection according to ISO 5211	Stem measurements	Required torque (Nm)	Leakagerate
2313BV125	1450	F07	14x14mm	45	Rate A acc. to EN 12266-1:2012
2313BS150	1945	F07	16x16mm	65	Rate A acc. to EN 12266-1:2012
2313BV150	1945	F07	14x14mm	65	Rate A acc. to EN 12266-1:2012
2313BV200	4095	F07	17x17mm	141	Rate A acc. to EN 12266-1:2012
2313BV250	6085	F10	22x22mm	276	Rate A acc. to EN 12266-1:2012
2313BV300	9570	F10	22x22mm	394	Rate A acc. to EN 12266-1:2012
2313BV350	13500	F10	22x22mm	478	Rate A acc. to EN 12266-1:2012
2313BV400	16350	F14	27x27mm	824	Rate A acc. to EN 12266-1:2012
2313BV450	21550	F14	27x27mm	942	Rate A acc. to EN 12266-1:2012
2313BV500	27700	F16	36x36mm	1459	Rate A acc. to EN 12266-1:2012
2313BV600	37200	F16	36x36mm	2168	Rate A acc. to EN 12266-1:2012
2313B-40	95	F07	9x9mm	4	Rate A acc. to EN 12266-1:2012
2313B-50	95	F07	9x9mm	6	Rate A acc. to EN 12266-1:2012
2313B-65	231	F07	9x9mm	10	Rate A acc. to EN 12266-1:2012
2313B-80	491	F07	9x9mm	16	Rate A acc. to EN 12266-1:2012
2313B-100	690	F07	11x11mm	29	Rate A acc. to EN 12266-1:2012

Item number	KVS	Connection according to ISO 5211	Stem measurements	Required torque (Nm)	Leakage rate
2313B-125	1450	F07	14x14mm	45	Rate A acc. to EN 12266-1:2012
2313B-150	1945	F07	14x14mm	65	Rate A acc. to EN 12266-1:2012
2313B-200	4095	F07	17x17mm	141	Rate A acc. to EN 12266-1:2012
2313B-250	6085	F10	22x22mm	276	Rate A acc. to EN 12266-1:2012
2313B-300	9570	F10	22x22mm	394	Rate A acc. to EN 12266-1:2012

DN	25	32	40	50	65	80	100	125	150	200	250	300	350
KVS	14.2	23.1	36.6	53.7	95.1	137.1	206.4	268.8	401	706	1229	1902	2611

Installation and maintenance

Flow direction: Uni-directional

Possible mounting position: Horizontal

A backflow preventer should never be installed alone (as a protective device) but should always be installed as a protection module to allow for control according to the standard SS-EN 1717. The installation drawing shows a protection module with two shut-off valves placed 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 protection module should be installed in a suitable location in the drinking water installation, as close to the potential source of risk as possible.
- The protection module should be mounted horizontally with the drainage opening downwards.
- Ensure that the flow arrow corresponds to the flow direction.
- The protection module should not be installed where flooding is possible.
- The protection module should be installed in a ventilated environment (not contaminated air).
- The protection 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.

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- The drain should have a capacity that can accommodate the drainage flow.
 - The protection module can only be installed for expected backflows that do not exceed the device's drainage capacity.
 - The protection module should be installed so that it is not subjected to external tensile or compressive forces.
 - The protection 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 dimension of space above the protection 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 total height of the protection 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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THE COMPANY'S MANAGEMENT SYSTEM
IS CERTIFIED BY DNV
ISO 9001 • ISO 14001