

## Product information

Protective module 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	Compound unit

## Area of use

Backflow preventers are used to protect internal and external plumbing systems from backflow and pressure backflow. The protective covering is suitable for liquids up to category 4. The backflow preventer is of type BA in accordance with SS-EN 1717.

## Tender text

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

Backflow prevention device AT 1167-...M (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 drain 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

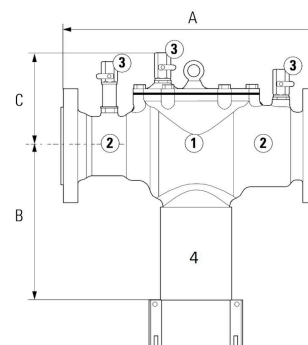
Fluid category 4, SS-EN 1717

Protective covering for liquids up to category 4. The backflow prevention device is of type BA in accordance with SS-EN 1717.

**Product marking:** Manufacturer, DN, PN, flow direction, manufacturer and manufacturing number.

Separate inspection nameplate.

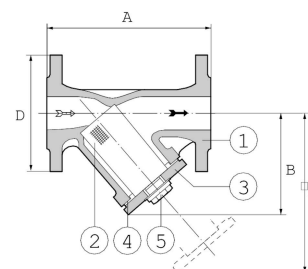
Pos	Component	Material
-----	-----------	----------



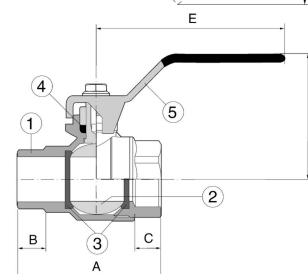
### Butterflyvalve List of details

Pos	Component	Material
-----	-----------	----------

Pos	Component	Material
-----	-----------	----------



Pos	Component	Material
-----	-----------	----------



### Measurements and weight

**Dimension range (DN):** 65 - 200

DN	65	80	100	150	200
A	738	842	984	1222	1483
Net weight (kg)	49	65	84	151	257

### 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:** Compound unit

**Included materials:** Cast iron, Stainless steel, Rubber, Other

**Temperature (°C):** 0 - 65

**PN:** 10

**Connection:** Flanged EN1092

**ETIM classification:** EC004501 - Backflow preventer

**MagiCAD link:** <https://redir.magicloud.com/product/c1312ada-03f3-4d84-b798-564521be3a6f>

## 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

## Butterflyvalve Technical data

Item number	KVS	Connection according to ISO 5211	Stem measurments	Required torque (Nm)
2313BS40	95	F07	10x10mm	4
2313BV40	95	F07	9x9mm	4
2313BS50	95	F07	10x10mm	6
2313BV50	95	F07	9x9mm	6
2313BS65	231	F07	10x10mm	10
2313BV65	231	F07	9x9mm	10

Item number	KVS	Connection according to ISO 5211	Stem measurments	Required torque (Nm)
2313BS80	491	F07	10x10mm	16
2313BV80	491	F07	9x9mm	16
2313BS100	690	F07	12x12mm	29
2313BV100	690	F07	11x11mm	29
2313BS125	1450	F07	12x12mm	45
2313BV125	1450	F07	14x14mm	45
2313BS150	1945	F07	16x16mm	65
2313BV150	1945	F07	14x14mm	65
2313BV200	4095	F07	17x17mm	141
2313BV250	6085	F10	22x22mm	276
2313BV300	9570	F10	22x22mm	394
2313BV350	13500	F10	22x22mm	478
2313BV400	16350	F14	27x27mm	824
2313BV450	21550	F14	27x27mm	942
2313BV500	27700	F16	36x36mm	1459
2313BV600	37200	F16	36x36mm	2168
2313B-40	95	F07	9x9mm	4
2313B-50	95	F07	9x9mm	6
2313B-65	231	F07	9x9mm	10
2313B-80	491	F07	9x9mm	16
2313B-100	690	F07	11x11mm	29
2313B-125	1450	F07	14x14mm	45

Item number	KVS	Connection according to ISO 5211	Stem measurments	Required torque (Nm)
2313B-150	1945	F07	14x14mm	65
2313B-200	4095	F07	17x17mm	141
2313B-250	6085	F10	22x22mm	276
2313B-300	9570	F10	22x22mm	394

Item number	DN	Execution	KVS	Mesh size (mm)
4028B15	15	Standard	6.2	0.6
4028B20	20	Standard	9.6	0.6
4028B25	25	Standard	14.2	0.6
4028B32	32	Standard	23.1	0.6
4028B40	40	Standard	36.6	0.6
4028B50	50	Standard	53.7	0.6
4028B65	65	Standard	95.1	0.6
4028B80	80	Standard	137.1	0.6
4028B100	100	Standard	206.4	0.6
4028B125	125	Standard	268.8	0.6
4028B150	150	Standard	401	0.6
4028B200	200	Standard	706	0.6
4028B250	250	Standard	1229	0.6
4028B350	350	Standard	2611	0.6
4028BE50	50	Epoxy coating	53.7	0.6
4028BE65	65	Epoxy coating	95.1	0.6

Item number	DN	Execution	KVS	Mesh size (mm)
4028BE80	80	Epoxy coating	137.1	0.6
4028BE100	100	Epoxy coating	206.4	0.6
4028BE125	125	Epoxy coating	268.8	0.6
4028BE150	150	Epoxy coating	401	0.6
4028BE200	200	Epoxy coating	706	0.6
4028BE250	250	Epoxy coating	1229	0.6
4028BE300	300	Epoxy coating	1902	0.6
4028B50P	50	Magnetic insert	53.7	0.6
4028B80P	80	Magnetic insert	137.1	0.6
4028B100P	100	Magnetic insert	206.4	0.6
4028B125P	125	Magnetic insert	268.8	0.6
4028B150P	150	Magnetic insert	401	0.6
4028BE200-10	200	Epoxy coating	706	0.6
4028B50-1012	50	C2 coating	53.7	0.6
4028B40P	40	Magnetic insert	36.6	0.6
4028B80-1013	80	C3 coating	137.1	0.6
4028B32P	32	Magnetic insert	23.1	0.6
4028B32P-1012	32		23.1	0.6
4028B65P-1012	65		95.1	0.6
4028B80-1012	80	C2 coating	137.1	0.6
4028B40-1012	40	C2 coating	36.6	0.6
4028B80P-1012	80		137.1	0.6

Item number	DN	Execution	KVS	Mesh size (mm)
4028BE50P	50		53.7	0.6
4028BE80P	80		137.1	0.6
4028B32-1012	32	C2 coating	23.1	0.6
4028B50-1014	50	C4 coating	53.7	0.6
4028B65P	65	Magnetic insert	95.1	0.6
4028BE65P	65		95.1	0.6
4028BE100P	100		206.4	0.6
4028B100-1012	100	C2 coating	206.4	0.6
4028B40-1014	40	C4 coating	36.6	0.6
4028B50-1013	50	C3 coating	53.7	0.6
4028B65-1013	65	C3 coating	95.1	0.6
4028B65-1012	65	C2 coating	95.1	0.6
4028B32-1013	32	C3 coating	23.1	0.6
4028B100-1013	100	C3 coating	206.4	0.6
4028B100-1014	100	C4 coating	206.4	0.6
4028B25-1012	25	C2 coating	14.2	0.6
4028B25P	25	Magnetic insert	14.2	0.6
4028B25-1013	25	C3 coating	14.2	0.6
4028BE125P	125		268.8	0.6
4028B125-1012	125	C2 coating	268.8	0.6
4028B125-1013	125	C3 coating	268.8	0.6
4028B125P-1012	125		268.8	0.6



Item number	DN	Execution	KVS	Mesh size (mm)
4028BE150P	150		401	0.6
4028B150-1012	150	C2 coating	401	0.6
4028B150-1014	150	C4 coating	401	0.6
4028B200P	200	Magnetic insert	706	0.6
4028BE200P	200		706	0.6
4028B200-1012	200	C2 coating	706	0.6
4028B200-1014	200	C4 coating	706	0.6
4028B250P	250	Magnetic insert	1229	0.6
4028B250-1012	250	C2 coating	1229	0.6
4028B250-1013	250	C3 coating	1229	0.6
4028B300	300	Standard	1902	0.6
4028B400	400	Standard	3438	0.6

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
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

Item number	KVS	Connection 1	Connection 1 - spec.	Connection 2	Connection 2 - spec.
3640-50	224.2	Internal thread ISO 228-1 (G, BSPP)	2	External thread ISO 228-1 (G, BSPP)	2

## Installation and maintenance

**Flowdirection:** 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 enable control according to the SS-EN 1717 standard. 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 must 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.
- 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 that is 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.

[info@armatec.se](mailto:info@armatec.se) | +46 31 89 01 00 | [www.armatec.se](http://www.armatec.se)

THE COMPANY'S MANAGEMENT SYSTEM  
IS CERTIFIED BY DNV  
ISO 9001 • ISO 14001