

WE SAY:  
CLEANLY SEPARATED  
SYSTEMS =  
ELKO-MAT EDER!



Technical  
datasheet

# BACKFLOW PREVENTER

## 1. Safety guidelines

- Follow the installation instructions
- Use the appliance according to its intended use, in good condition and with due regard to safety and risk of danger.
- Note that the appliance is exclusively for use in the applications detailed in these installation instructions. Any other use will not be considered to comply with requirements and would invalidate the warranty.
- Please take note that any assembly, commissioning, servicing and adjustment work may only be carried out by authorized persons.
- Immediately rectify any malfunctions which may influence safety.

## 2. Description of function

Backflow preventers type BA are divided into three pressure zones. The pressure in zone 1 is higher than in zone 2 and this is higher than in zone 3. The discharge valve in zone 2 latest opens at a pressure difference between zone 1 and zone 2 of 0.14 bar. Water of zone 2 flows out to the open, whereby backflow or back suction to the drinking water system is impossible. The pipe is interrupted and the drinking water system secured. This backflow preventer is DVGW proved.

## 3. Application

- Medium: Water
- max. inlet pressure: 10,0 bar
- min. inlet pressure: 1,5 bar
- input connection: Rp1/2 resp. Rp3/4
- output connection: R1/2 resp. R3/4
- strainer: mesh size 180 µm

## 4. Assembly

### 4.1. Assembly instructions

- Install shutoff valves before and after backflow preventer
- Install in horizontal pipework with the discharge valve downwards
- Ensure good access → simplifies maintenance and inspection
- 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



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## 4.2. Assembly instructions

- Thoroughly flush pipework
- Install backflow preventer
- Install in horizontal pipework with discharge connection directed downwards
- Note flow direction → indicated by arrow
- Install without tension or bending stresses
- Attach drain pipe to discharge connection (plastic pipe HT 50)
- The appliance is ready for use

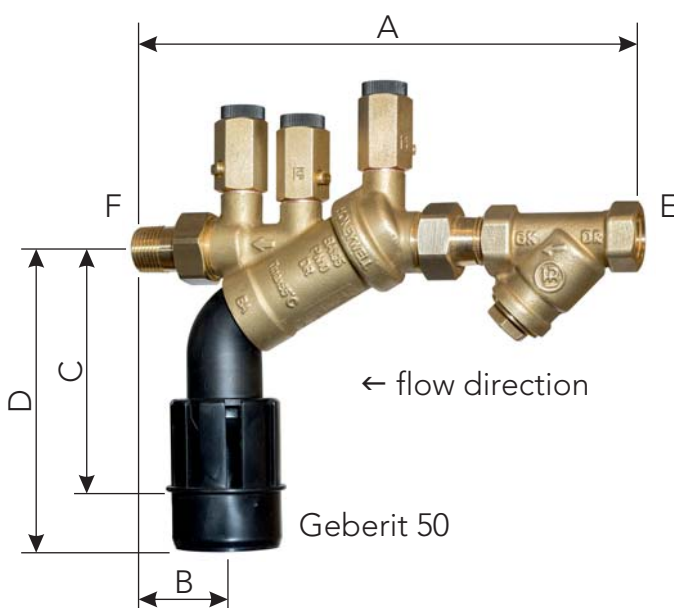
## 5. Scope of delivery

The backflow preventer consists of:

- Housing
- Strainer, mesh size 180 µm
- Valve cartridge with integrated check valve and discharge valve
- Outlet check valve
- Discharge connection

## 6. Technical data

- Installation position horizontal with discharge valve downwards
- max. operation temperature: 65 °C
- Discharge pipe connection: Geberit Dn50
- Nominal size: 3/8"



type	backflow preventer	
	1/2"	3/4"
A mm	215	250
B mm	40	45
C mm	110	110
D mm	135	135
E	Rp1/2	Rp3/4
F	R1/2	R3/4

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## 7. Maintenance

We recommend a planned maintenance contract with an installation company. Maintenance of backflow preventer must be carried out by authorized personnel!

### 7.1. Inspection

- Frequency: every 6 months (depending on local operating conditions)
- To be carried out by an installation company
- Inspection with a test control unit and maintenance set

#### 7.1.1. Testing discharge valve

Test with test kit TKA 295 or TK 295. Procedure according the operating instructions of the test kit TKA 295 resp. TK 295.

Quick test for the discharge valve:

- Lower the inlet pressure
- If the discharge valve opens (it drops), the function is OK.

#### 7.1.2. Testing outlet check valve

Test with test kit TKA 295 or TK 295. Procedure according the operating instructions of the test kit TKA 295 resp. TK 295.

### 7.2. Maintenance

We recommend a planned maintenance contract with an installation company. In accordance with DIN EN 1717 a regular maintenance must be taken.

Frequency: every 1-3 years (depending on local operating conditions), to be carried out by an installation company

#### 7.2.1. Cartridge insert

- Close shutoff valve on inlet
- Release pressure on outlet side (e.g. through water tap)
- Close shutoff valve on outlet
- Unscrew drainage connection
- Remove pipe bend
- Remove circlip
- Replace cartridge insert and lip seal. Don't disassemble cartridge insert to individual parts!
- Reassemble in reverse order
- Push down the cartridge insert till it snaps in
- Test function (see chapter inspection)



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## 7.2.2. Check valve

- Close shutoff valve on inlet
- Release pressure on outlet side (e.g. through water tap)
- Close shutoff valve on outlet
- Insert check valve
- Check valve is destroyed during disassembly
- Test function (see chapter inspection)

## 7.3. Cleaning

- To be carried out by an installation company
- To be carried out by the operator

If necessary, the cartridge insert can be cleaned. Do not use any cleaners that contain solvents and/or alcohol for cleaning the plastic parts, because this can result in water damage.

- Close shutoff valve on inlet
- Release pressure on outlet side (e.g. through water tap)
- Close shutoff valve on outlet
- Unscrew drainage connection
- Remove pipe bend
- Remove circlip
- Don't disassemble cartridge insert to individual parts!
- Reassemble in reverse order
- Push down the cartridge insert till it snaps in
- Test function (see chapter inspection)

## 8. Disposal

- DZR brass housing
- Valve cartridge in high-grade synthetic material
- Outlet check valve in high-grade synthetic material resp. red brass
- Sealing elements made of NBR and EPDM
- Discharge connection in high-grade synthetic material

Observe the local requirements regarding correct waste recycling/disposal!



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## 9. Trouble shooting

Disturbance	Cause	Remedy
Discharge valve opens without apparent reason (perhaps only temporary)	<ul style="list-style-type: none"><li>• Pressure strokes i water supply system</li><li>• Fluctuating inlet pressure</li><li>• Cartridge insert is contaminated</li><li>• Minimum inlet pressure of 1.5 bar is temporary undercut</li></ul>	<ul style="list-style-type: none"><li>• Install a pressure reducing valve upstream the backflow preventer</li><li>• Install a pressure reducing valve upstream the backflow preventer</li><li>• Remove cartridge insert and exchange it</li><li>• Prove regulation/function of the pressure reducer ahead the backflow preventer. If the minimum inlet pressure can't be guaranteed constantly, every time by going below the minimum inlet pressure, a content run-off of zone 2 via the drainage connection has to be expected (no failure, but normal function)</li></ul>
Discharge valve doesn't close	<ul style="list-style-type: none"><li>• Deposits on valve seat</li><li>• Damaged O-ring</li><li>• Leaky discharge valve</li></ul>	<ul style="list-style-type: none"><li>• Remove cartridge insert and clean or exchange it</li><li>• Remove cartridge insert and exchange it</li><li>• Remove cartridge insert and clean or exchange it</li></ul>
Flow is too low	<ul style="list-style-type: none"><li>• Inlet strainer is blocked</li></ul>	<ul style="list-style-type: none"><li>• Remove strainer and clean it</li></ul>

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