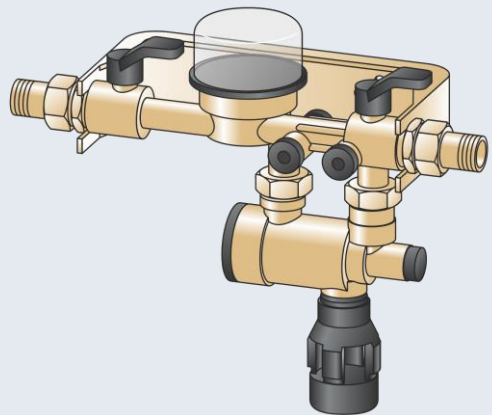




Thinking solutions.

Reflex Fillset

EN Original operating manual



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1 Information concerning the operating manual

This operating manual is an important aid for ensuring the safe and reliable functioning of the Fillset. Reflex Winkelmann GmbH accepts no liability for any damage resulting from failure to observe the information in this operating manual. In addition national statutory regulations and provisions in the country of installation must also be complied with (concerning accident prevention, environment protection, safe and professional work practices, etc.).

2 Safety

Reflex Fillset is a prefabricated valve set for direct connection of drinking water systems with heating or cooling circuits for make-up purposes. System separation in accordance with DIN 1988 T 4 or DIN EN 1717 is implemented using a DVGW (German Technical and Scientific Association for Gas and Water) approved system isolator (type BA). This can be used up to hazard class 4.

Control of the make-up volume according to VDI 2035, is implemented using a water meter. Testing and repair work may only be carried out by authorised persons.



Risk of burns on hot surfaces

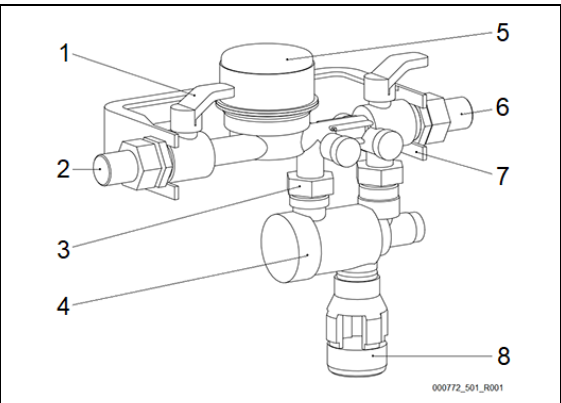
Be careful when working on a hot system. Especially with compression couplings, there is a risk of scalding in the event of water leaks, or injury due to high temperatures in the event of accidental contact.

- Wear protective gloves.
- Please place appropriate warning signs in the vicinity of the device.

- Only use the manufacturer's original parts when replacing parts.
- Suitable measures for temperature and pressure protection in the supply system must be implemented so that the specified permissible max. and min. operating parameters are not over or undershot.
- Ignoring this manual and the safety information in particular, may cause destruction and defects, endanger persons and adversely affect the functioning.
- In case of infringement, any claims for warranty and liability are excluded.

3 Overview

1	Shut-off
2	Inlet
3	Dirt trap
4	System isolator
5	Water meter
6	Outlet
7	Wall bracket
8	Drain funnel – Site-provided collecting funnel or HAT-40-pipe with drainage options



4 Technical data

Reflex Fillset as an accessory for the direct connection of the make-up to a potable water supply system (mains) with DVGW-tested system isolator, type BA. Fillset versions are available with a **standard water meter** or **contact water meter**.

Permissible operating pressure	10 bar	Installation position	Horizontal
Permissible operating temperature	0 - 60 °C	Length	293 mm
		Net weight	1.7 kg
Minimum differential pressure for opening the system isolator			0.8 bar
Flow coefficient K _{vs}	As a single module		0.8 m³/h
	In combination with Fillcontrol, Variomat, Reflexomat / Servitec		0.7 m³/h
Connections	Inlet		R ½
	Outlet		R ½

Electrical specifications for the contact water meter:

Design	Reed Contact	Connection cable	2 x 0.14 mm², 1.5 m long
Max. switching power	4 W DC		
Pulse sequence	1 contact/10 l		

5 Installation

ATTENTION

Damage to property!

The Fillset can be damaged by water hammer.

- Ensure that no pressure spikes act on the Fillset (valves, ball valves, solenoid valves) from either the mains water or system side.
- For example, prevent water hammer by use of a water hammer arrestor or SafeControl.

The Fillset wall bracket of the Fillset must be installed horizontally on the wall.

The **make-up line** must be integrated into the system in such a way that pressure protection against excessive mains water pressure is provided by the system-side safety valve. Otherwise, a pressure reducer with a safety valve must be installed in the make-up line. If sealing water leaks from the discharge funnel as a result of the operating conditions, it must be drained away below the system isolator by site-provided drainage. After installing the Fillset, the leak-tightness and function of the system isolator must be checked ➤ 6 "Commissioning and maintenance", 7.

Manual make-up

If the Fillset is used for manual make-up or for filling the system, the shut-off must be slowly manually opened or closed as necessary. The system pressure is to be monitored at the site-provided pressure gauge.

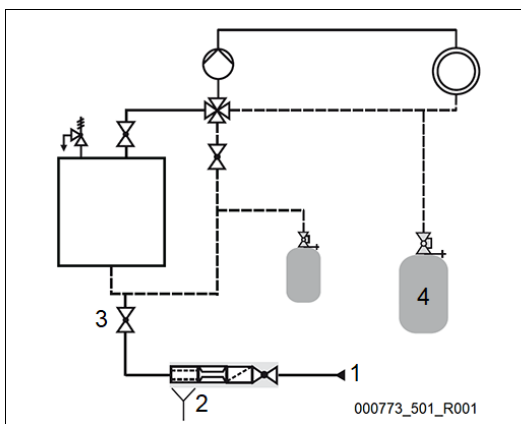
Automatic make-up

If the Fillset is connected for automatic make-ups such as Reflex Fillcontrol, Servimat, Reflexomat with Fillvalve, Variomat or Servitec, the shut-off is continuously open during operation.

In the case of a Fillset with a contact water meter, it is cabled with the building control system or Reflex Fillcontrol, Servitec, Variomat, Reflexomat or Gigamat (see corresponding operating manual). Then the make-up quantity is evaluated via the corresponding control.

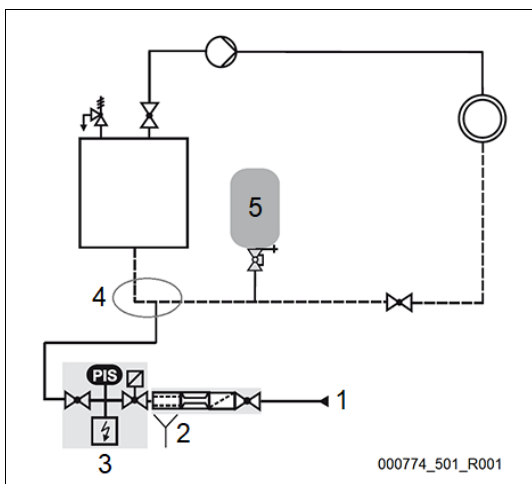
Fillset for manual make-up

1	Filling connection
2	Reflex Fillset
3	Site shut-off valve
4	Pressurisation



Fillset with automatic make-up

1	Filling connection
2	Reflex Fillset
3	Reflex Fillcontrol
4	Incorporation: in the circuit, close to the diaphragm expansion vessel
5	Diaphragm expansion vessel pressurisation



6 Commissioning and maintenance

Commissioning and maintenance work may only be carried out by qualified personnel.

System isolator maintenance

The system isolator is subject to annual maintenance based on DIN EN 1717. The first check is carried out after the first operating year, then checking is periodic, however, no later than after one year.

Use the connections provided for ball valves and a suitable pressure gauge to perform a function test of the valve.

Cleaning of dirt trap and BA cartridge

- Disconnect the system and mains water lines upstream and downstream of the Reflex Fillset with the aid of inlet and outlet shut-offs and depressurise the valve.
- Use the maintenance spanner (27 mm AF) to unscrew the BA cartridge closure and remove the cartridge.
- Then undo the two screw connections above the system isolator. Next pull the dirt trap out from the inlet-side screw connection in an upwards direction.
- Clean the removed components under clear running water.
- After the subsequent assembly, open the two shut-offs.

7 Appendix

7.1 Reflex Customer Service

Central customer service

Switchboard: Telephone number: +49 (0)2382 7069 - 0

Customer Service extension: +49 (0)2382 7069 - 9505

Fax: +49 (0)2382 7069 - 9523

E-mail: service@reflex.de

Technical hotline

For questions about our products

Telephone number: +49 (0)2382 7069-9546

Monday to Friday, 8:00 a.m. – 4:30 p.m.

7.2 Warranty

The respective statutory warranty regulations apply.



Thinking solutions.

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