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AF4 and AF8 safety valve with non-return valve

Art.-Nr 42 212 10, 42 234 10

CAUTION!

This instruction manual is also available on www.afriso.pl, in the "Online Catalogue" and "Downloads" tabs.

WARNING!



Danger of scalding by hot system water.

During installation, commissioning and maintenance of safety valves, all possible measures must be taken to prevent scalding by hot water.

APPLICATION

AF4 and AF8 safety valves are designed to work with electric domestic hot water heaters with a maximum temperature of 95°C and nominal pressure of 6 bar, as a safety element.

CONSTRUCTION OF THE VALVE

The valve is composed of:

- A. **Safety valve** – opens the outflow of water outside the system when the heater pressure exceeds the nominal pressure of the valve.
- B. **Non-return valve** – limits the outflow of water from the heater to the general supply system in the event of a loss of pressure in the supply system. The valve fully opens when the water pressure in the supply system is at least 0.2 bar higher than the pressure in the heater.
- C. **Relief valve** – opens the outflow of water from the heater to the heater's supply system when the pressure in the heater exceeds the supply pressure by 0.9 ± 0.4 bar. Thanks to this the pressure in the heater is lowered, after increasing along with the temperature when there is no water consumption.

The valve is not designed to drain water from the heater! Leaking impurities may damage the valve, which may result in a hazard to the environment and the user.

TECHNICAL DATA

| Parameter | Value / material |
|---|--|
| Safety valve nominal pressure | 6.7 \pm 0.3 bar |
| Working temperature | max 95°C |
| Body material | CW617N brass |
| Connections | AF4: G1/2" x Rp1/2" AF8: G3/4" x Rp3/4" |
| Nominal size | AF4: DN15 AF8: DN20 |
| Smallest diameter of safety valve outflow passage (d) | AF4: 6 mm AF8: 8 mm |
| Power output of the water heater | AF4: max 4 kW AF8: max 10 kW |

APPROVALS AND CERTIFICATES

The AF4 and AF8 valves have been designated as "B" construction equipment in Poland. They also bear the Polish NIZP-PZH hygienic certificate.

MOUNTING

The valve needs to be mounted on the heater supply system, in accordance with the arrow on the body. The length of the nipple on the internal thread side of the valve should not exceed 10 mm, due to the possibility of damaging the valve. For sealing, use a suitable material intended for use in domestic hot water installations. The water supply system positioned at least 5 m away from the valve needs to be able to withstand water of temperature of up to +95°C due to the possibility of outflow of hot water from the heater. Before mounting the valve, the system should be flushed in order to remove any dirt and impurities that could cause damage to the valve.

A flexible hose needs to be fixed to the safety valve outlet to guarantee safe removal of water in case the safety valve opens. The hose needs to be able to withstand water of temperature of up to +95°C, needs to be no longer than 1.2 m long and be of at least be 7 mm (AF 4) or 9 mm (AF 8) internal diameter. The hose must be sloped with a constant slope towards the outlet. The hose must not narrow or bend, and its end must remain visible to the user (to make it possible to check the correct operation of the valve).

USAGE

The operation of the valve needs to be checked regularly (at least once a year) and each time after the system is turned on after an extended period of no use. The valve operation can be checked through moving the valve lever far enough to cause water discharge from the safety valve. The lever needs to be returned to its original position afterwards to close the valve again.

If the water does not discharge after pressing on the lever, it indicates valve damage.

In such case the valve needs to be replaced with a new one with the same parameters.

WARNING!



Be careful when operating the lever, as hot water under pressure may be discharged from the valve outlet.

The water pressure in the supply system cannot exceed 6 bar. Higher pressure may cause a constant discharge of water by the valve. That does not mean the valve is damaged. In such case, we recommend installing a pressure reductor on the supply system.

DECOMMISSIONING, DISPOSAL



1. Dismount the device.
2. To protect the environment, this product must not be disposed of together with regular household waste. Dispose of the product according to local directives and guidelines.

WARRANTY

The manufacturer's warranty for this product is 36 months after the date of sale from AFRISO Sp. z o.o. In case of any alteration of the product or usage against this instruction manual, the warranty becomes void.

CUSTOMER SATISFACTION

For AFRISO Sp. z o.o. customer satisfaction is the prime objective. Please contact us if you have any questions, suggestions or problems concerning our product: zok@afriso.pl.