resideo Safety Valves

Braukmann SM150

Diaphragm safety valve

for closed drinking water systems

APPLICATION

Diaphragm safety valves of this type are used to protect closed hot drinking water systems according to EN 806-2.

In accordance with statutory requirements, the diaphragm safety valve is preset to the required fixed set pressure by the manufacturer and is sealed with an embossed security cap marked with the test badge and pressure rating to prevent unauthorised tampering with the setting. Subsequent alteration of the setting is not permitted and is impossible without destroying the security cap. The preset pressure is embossed on the security cap.

SPECIAL FEATURES

- Certified to Pressure Equipment Directive 2014/68/EU
- Tested according EN 1491
- Meets UBA regulations for drinking water
- Standardised discharge connection
- With lifting device
- Protected against subsequent changing of the default settings

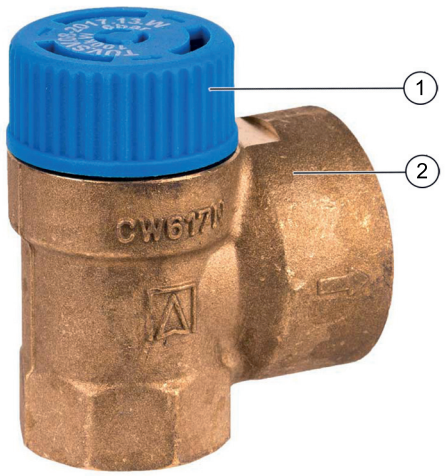
TECHNICAL DATA

The diaphragm safety valve is only suitable to drain drinking water from closed drinking water systems according to EN 806-5 for protection against exceeding pressure.

Media	
Medium:	Drinking water
Connections/Sizes	
Internal thread on inlet:	1/2", 3/4"
Internal thread on outlet:	1/2", 3/4", 1"
Pressure values	
Opening pressure:	6, 8 or 10 bar*
Operating temperatures	
Operating temperature:	95 °C
Specifications	
Installation position:	Horizontal with safety cap pointing up
Valve size:	Defined by the size of the inlet connection

* Subsequent alteration of the setting is not permitted and is impossible without destroying the security cap

CONSTRUCTION

Overview		Components	Materials
	**1**	Security cap with part label	High-grade synthetic material
	2	Angled housing	Brass
		Not depicted components:	
		Adjustment spring	Spring steel
		Diaphragm	Hot water resistant elastomer

METHOD OF OPERATION

Diaphragm safety valves of this type are direct acting safety valves in which the disc is pushed up by the pressure from the system against a spring which is holding the valve closed. If the opening force exceeds the force exerted by the spring, then the valve disc is lifted off the valve seat and the valve discharges the medium. In accordance with the requirements of the standard, the full discharge capacity of the valve will be achieved when the system pressure climbs to no more than 10 % above the set pressure of the valve. Full shut-off must be achieved if the system pressure falls to below 80 % of the nominal set pressure of the valve. For valves rated up to 3.0 bar, the closing pressure can be taken as 0.6 bar minimum.

TRANSPORTATION AND STORAGE

Keep parts in their original packaging and unpack them shortly before use.

The following parameters apply during transportation and storage:

Parameter	Value
Environment:	clean, dry and dust free
Min. ambient temperature:	5 °C
Max. ambient temperature:	55 °C
Min. ambient relative humidity:	25 % *
Max. ambient relative humidity:	85 % *

*non condensing

INSTALLATION GUIDELINES

Setup requirements

- Safety valve must be installed in the cold water supply pipework before the water heater
- The installation must be carried out so that:
  - There are no shut-off valves or fittings, narrowing of the pipework or strainers between the water heater and the safety valve
  - Good access is provided for service and maintenance
  - The draining water must be visible and mustn't damage persons or electrical devices
  - The safety valve is fitted above the top of the water heater to avoid the need for draining down when exchanging the safety valve insert
  - That between the safety valve and heat exchanger a max. 1 m long straight connection line with the size of the inlet diameter is installed
- The discharge line must be performed to the size of the safety valve outlet diameter and may not have more than 2 elbows and or be longer than 2 m
- The discharge line must be installed with an incline
- If there is no drainage facility in the room where the heater is installed, then the safety valve may be fitted in an adjacent area. DIN 1988-200 is to be observed
- The installation location should be protected against frost
- The safety valve must be mounted so that in its installed condition no external forces act on it
- Nearby the safety valve must be signed
  - Drainage water can discharge
  - Not locking!
- Requires regular maintenance in accordance with EN 806-5

Installation Example

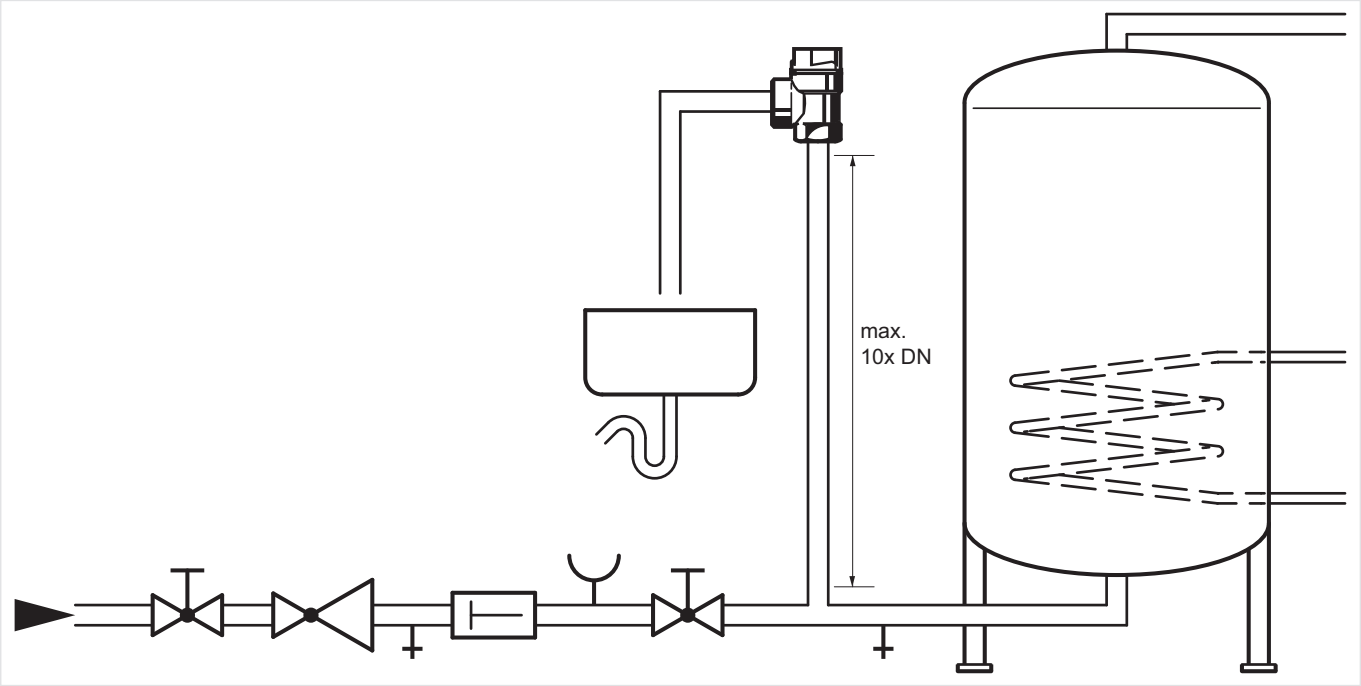
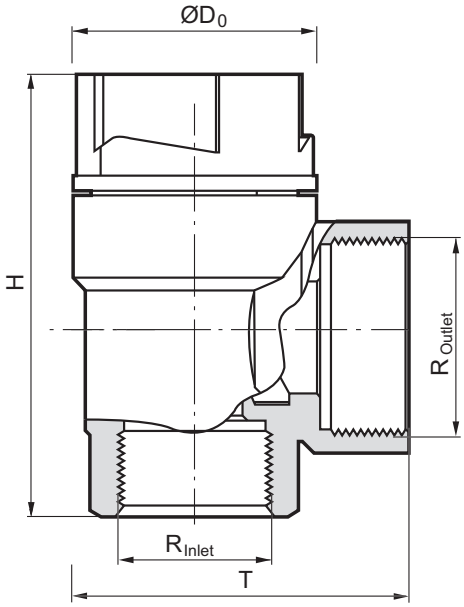


Fig. 1 Standard installation example for the safety valve

DIMENSIONS

Overview



Parameter		Values	
Connection size Inlet:	R	1/2" IG	3/4" IG
Connection size Outlet:	R	3/4" IG	1" IG
Dimensions:	H	60	62
	Ø D_o	33	36
	T	46	46
Weight:	g	140	150
For water heaters with capacity:	litres	up to 200	up to 1000
Maximum permissible heat input:	kW	75	150

Note: All dimensions in mm unless stated otherwise.

ORDERING INFORMATION

The following tables contain all the information you need to make an order of an item of your choice. When ordering, please always state the type, the ordering or the part number.

Options

OS.-No.:	Set pressure:	Connection size Inlet:	Connection size Outlet:
SM150- 1/2A	6.0 bar	Rp 1/2" IG	Rp 3/4" IG
SM150- 1/2B	8.0 bar	Rp 1/2" IG	Rp 3/4" IG
SM150- 1/2C	10.0 bar	Rp 1/2" IG	Rp 3/4" IG
SM150- 3/4A	6.0 bar	Rp 3/4" IG	Rp 1" IG
SM150- 3/4B	8.0 bar	Rp 3/4" IG	Rp 1" IG
SM150- 3/4C	10.0 bar	Rp 3/4" IG	Rp 1" IG

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