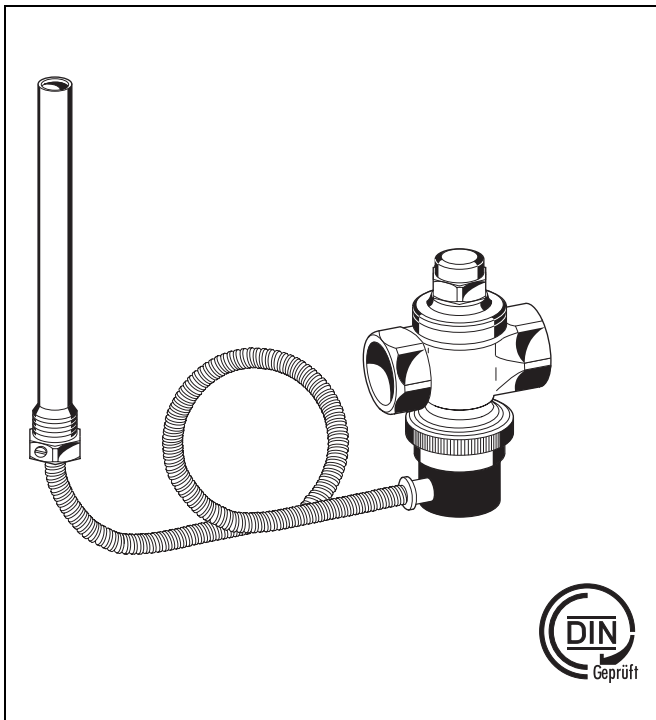


## TS131

### Temperature Relief Valve With test facility and double sensor

#### Product specification sheet



#### Construction

The temperature relief valve comprises:

- Housing with internal thread
- Bonnet
- Valve piston with form seal
- Spring
- Remote double temperature sensor with capillary tube
- Immersion sleeve G 1/2" (ISO 228)

#### Materials

- Brass housing, bonnet and immersion pocket
- Copper temperature sensor
- Copper capillary tube
- Brass valve piston
- Hot-water-resistant elastomer seals

#### Application

The TS131 temperature relief valve for heating systems according to EN 12828 is a self-acting valve which is activated by the flow temperature of the heat generator. It opens and discharges water from the heat generator or condensing coil at a flow temperature of 95 °C and thereby prevents a significant temperature rise in the heat generator.

#### Special Features

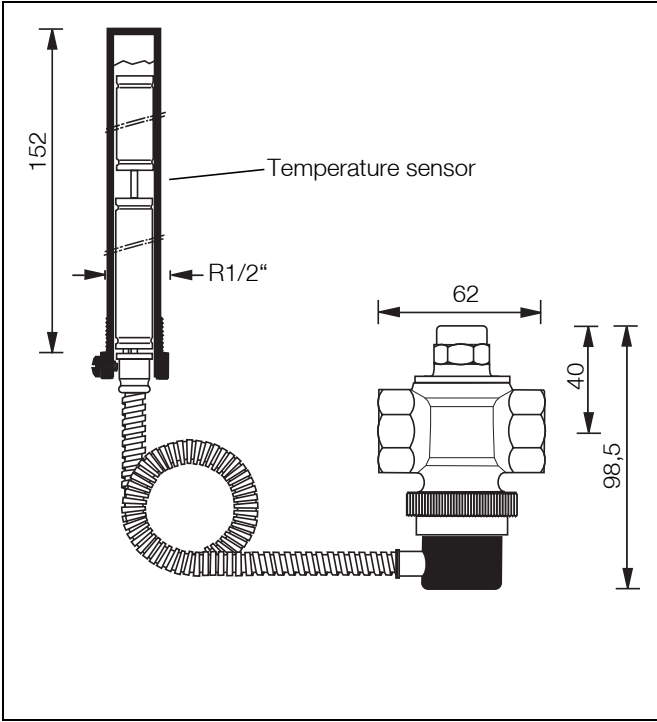
- Construction tested to EN 14597
- Immersion pocket with double heat sensors
- Test facility
- Capillary tube protected against kinking by steel sheath
- Immersion pocket with external thread
- Pressure balanced construction

#### Range of Application

Solid/dual-fuel boilers with integrated water heater or cooling coil in closed heating systems according to EN12828

#### Technical Data

Heating system capacity	max. 100 kW
Opening temperature	see Options
Ambient temperature	max. 70 °C
Capacity	2800 kg/h water at the pressure drop Dp=1 bar (Inlet pressure 5bar; Outlet pressure 4bar) (1 capillary tube)
Connection size	Rp 3/4" (DIN EN 10226)
Operating pressure	max. 5 bar



**Method of Operation**

The temperature relief valve is controlled by the supply temperature of the heat exchanger. It consists of a spring-loaded valve and a temperature sensor, which is acting on a bellows system. When the supply temperature in the boiler reaches the specified opening temperature (see versions), the force in the bellows system exceeds the spring force of the valve, and the valve opens.

**In case of installation upstream of the boiler, in the cold-water supply of the boiler's integrated heat exchanger:**

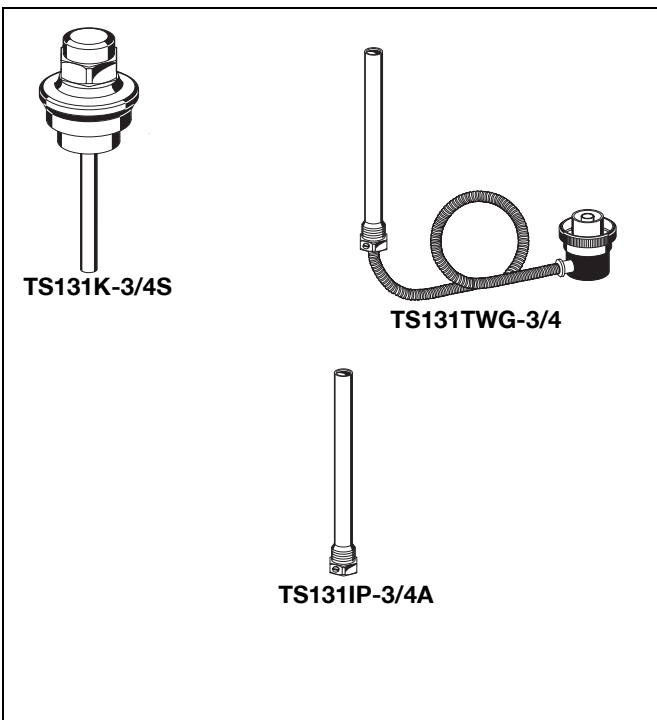
The temperature relief valve closes the supply to the heat exchanger. The heat exchanger itself remains dry in normal operation. If the temperature relief valve is opened, the heat exchanger fills up and dissipates excessive heat from the heating water to the drain.

**In case of installation downstream of the boiler, at the hot-water outlet:**

The temperature relief valve closes the outlet. If the temperature relief valve opens, the heated city water is drained from the heater and replaced with cold water from the supply. This water can now absorb the excessive heat from the water heater to prevent overheating.

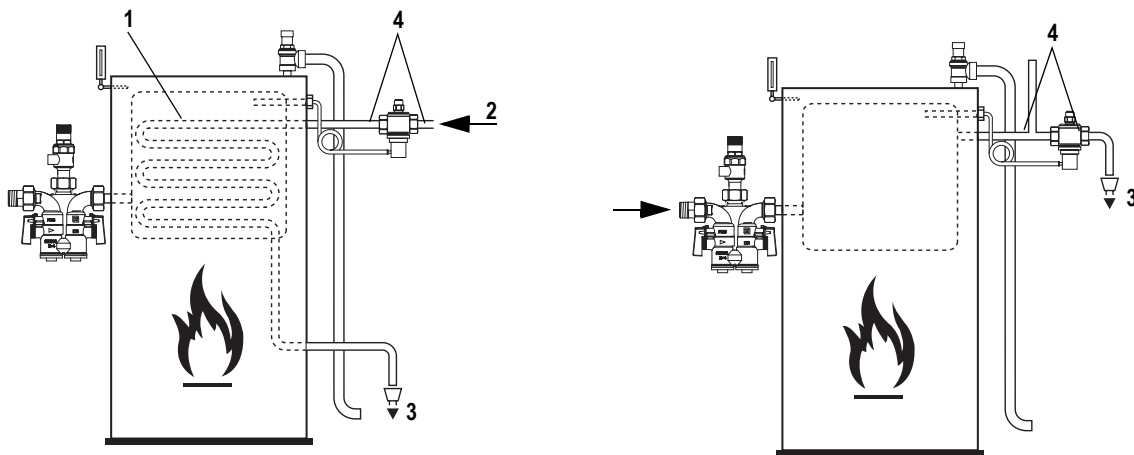
**Options**

- TS131-3/4A = Opening temperature 95 °C  
capillary tube with protection sheath 1300 mm,  
with approved construction
- TS131-3/4B = Opening temperature 95 °C  
capillary tube with protection sheath 4000 mm
- TS131-3/4Zx = Opening temperature x = 50 °C / 65 °C / 100 °C  
or 110 °C  
capillary tube with protection sheath 1300 mm,  
with approved construction



**Spare parts**

- TS131K-3/4S Piston guide, complete, for TS131**  
Only suitable for batches 1141 and up (2011, calendar week 41 and later)
- TS131TWG-3/4 Thermal expansion element for TS131**  
Opening temperature: 95° Type A = capillary with protection sleeve, 1300 mm  
Type B = capillary with protection sheath 4000 mm  
Type ZAx = opening temperature according to type (x = 50°C or 100°C ), capillary with protection sheath, 1300mm
- TS131IP-3/4 Immersion sleeve for TS131**

**Installation Example**

- 1 Safety heat exchanger
- 2 Cold-water supply
- 3 Outlet
- 4 min. DN20 (3/4")

**Installation Guidelines**

- The valve and the sensor must be installed carefully to avoid any damage to the capillary tube
- The opening on the blow-out line must be clear and easy to monitor
- Ensure no persons are in danger when blowing off the valve
- A sufficiently dimensioned discharge line must be provided

$k_{VS}$ -value  $\Delta p = 1 \text{ bar}$

3 m<sup>3</sup>/h with 2 intact sensor systems

2,1 m<sup>3</sup>/h with one sensor system

Attention!

Installation of the thermal discharge safety valve does not replace the diaphragm relief valve in the cold water supply line to the water heater.

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