



STW II capillary tube thermostat

Features

- Small construction
- Varying temperature ranges can be combined in one enclosure
- Can be mounted directly in Zone 1
- Temperature can be set in Zone 1
- Many variants available

Description

The STW II is a compact ON/OFF type capillary tube thermostat, housed in an Ex e certified polyester enclosure.

Heaters, fans, motors and other equipment are energised and de-energised by means of this thermostat when specific temperature ranges are exceeded. This device can also be used to control the temperature in air or on various surfaces.

Function

Any change in temperature at the sensor bulb causes a change in the volume of fluid in the measuring system, which in turn results in a movement of the diaphragm membrane. This membrane is connected to a mechanical device that activates a microswitch. If the temperature at the sensor bulb exceeds the pre-set value, terminals 1 and 4 are opened.

If there is a rupture or break in the sensor tube (leakage), then the switch remains permanently open (fail-safe). If the temperature falls below the minimum setting, the autocontrol opens the circuit but closes again on temperature rise.

Application example

The STW II thermostat can directly switch temperature-dependent equipment loads (heaters etc.) of up to 16 A.

Higher rated currents can be switched by means of a contactor; the STW II switches the contactor coil. If an interlock is installed by means of an additional relay (according to DIN VDE 0116), the STW II can also be used as a limiter.

➔ Explosion protection

Ex protection type

Ex II 2G Ex de IIC T6, T5

Certification

EPS 11 ATEX 1356 X

➔ Technical data

Protection class

IP 65/EN 60529

Enclosure material

polyester

Ambient temperature

-55 °C to +50 °C

Capillary tube

length	up to 5000 mm
OD sensor line	1.5 mm
min. bend radius	5 mm
Sensor bulb diameter	4 to 6 mm
Sensor material	stainless steel
	SS 1.4571

Dimensions (L x W x H)

120 mm x 122 mm x 90 mm

Weight

approx. 400 g

■ Electrical data

Switching current at 230 V

open contact:	16 A (AC-1)
closed contact:	2.5 A (AC-1)

Minimum contact load

AC/DC 24 V, 100 mA

Switching hysteresis

7 % of full scale value

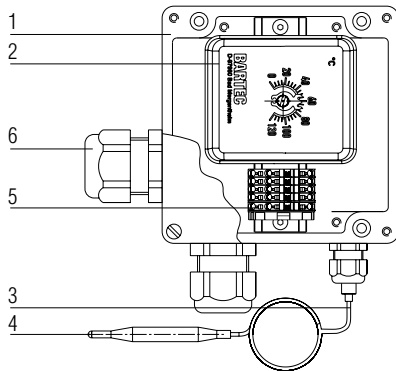
Switching accuracy

depending on type, see selection table



Device for 1 heating circuit

(Heating cable connection direct via sheathed cable/Plexo or cold lead)



- 1 Enclosure
- 2 Switch insert
- 3 Capillaries
- 4 Sensor
- 5 Rail-mounted terminals
- 6 Blind plug M20

Technical data

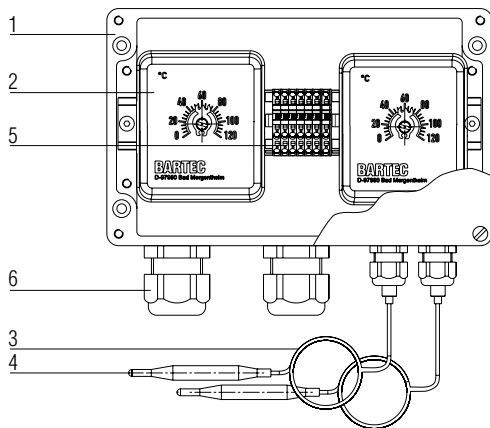
- Dimensions** 120 x 122 x 90 mm
- Terminals** 4 x 2.5 mm² + 1 PE
- Heating cable connections** 2 x M25

Selection chart Easy device

Description	Switching temperature/accuracy	Order no.
STW II	-20 °C to +50 °C +5 K/-0 K	27-6DF2-5215/1200
	+0 °C to +200 °C +16 K/-0 K	27-6DF2-5215/1300
	+50 °C to +300 °C +24 K/-0 K	27-6DF2-5215/1600

Device for 2 heating circuits

(Heating cable connection direct via sheathed cable/Plexo or cold lead)



- 1 Enclosure
- 2 Switch insert
- 3 Capillaries
- 4 Sensor
- 5 Rail-mounted terminals
- 6 Blind plug M25

Technical data

- Dimensions** 220 x 120 x 90 mm
- Terminals** 6 x 2.5 mm² + 2 PE
- Heating cable connections** 2 x M25

Selection chart Double device

Description	Switching temperature/accuracy	Order no.
STW II/STW II	-20 °C to +50 °C +5 K/-0 K	27-6DT2-5225/1220
	+0 °C to +200 °C +16 K/-0 K	27-6DT2-5225/1330
	+50 °C to +300 °C +24 K/-0 K	27-6DT2-5225/1660

Technical data subject to change without notice.