



- 22 A switching capacity
- Flame-proof enclosure
- ATEX, UL, CSA, FM Approval

The flame-proof encapsulated temperature controllers/limiters (DTW/DTB) are designed for (trace)-heating applications in the Ex area. They can be used both for protection against frost and for maintenance temperature applications. Heating units and other operating equipment are switched on and off by means of the temperature controller when the temperature is too high or too low. The DTB temperature limiter is designed with resetting lockout; resetting (restarting) is only possible on the device. Can be used for monitoring temperature in the air or on surfaces.

### Function

A change in temperature in the sensor causes a change in volume in the fluid filled in the measuring system, which in turn results in a movement of a membrane, which is connected to transmission mechanics and activates a microswitch. If the sensor temperature exceeds the pre-set level, the contact is actuated. The temperature limiter switches off permanently if the temperature is exceeded. Once the temperature drops, the temperature limiter can be unlocked manually. If there is a break in the measuring system (leakage), the circuit remains open permanently.

### Application example

DTW and DTB switch temperature-dependent equipment (heating units) of up to 22/16 A directly. Higher switching currents or 3-phase applications are switched by means of a contactor.

### Explosion protection

Marking  II 2G Ex d IIC T6  
 II GD Ex tb IIC T80 °C Db

Certification LCIE 08 ATEX 6073 X  
 IECEx LCIE 14.0005 X

Other approvals and certificates, see [www.bartec.de](http://www.bartec.de)

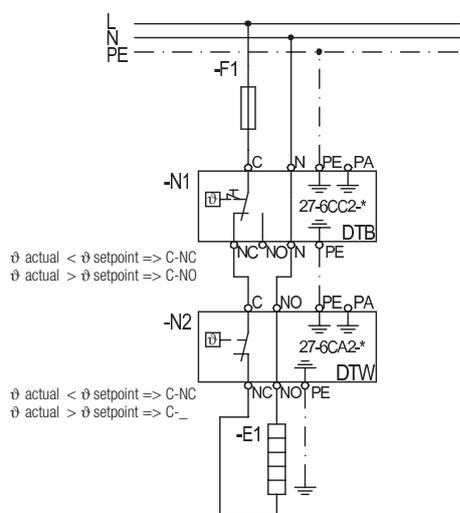
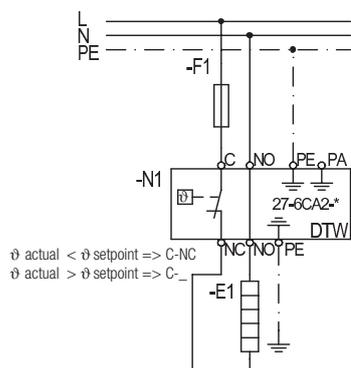
### Technical data

Temperature setting range	-4 °C to +163 °C
Ambient temperature device	-40 °C to +60 °C
Operating temperature sensor	-40 °C to +215 °C
Storage temperature	-40 °C to +60 °C
Repeat accuracy	±1.7 K
Switching differential	temperature controller 5 K
Switching hysteresis	temperature limiter 10 K
Switching point	±4.5 K (accuracy at 50 °C sensor temperature and 21 °C ambient temperature (falling))
Capillary tube (made of stainless steel)	Length: 3000 mm Diameter: 2 mm Bending radius: 15 mm Operating temperature range: -50 °C to +215 °C
Sensor (made of stainless steel)	Length: 203 mm Diameter: 8 mm Operating temperature range: -50 °C to +215 °C
Weight	1.7 kg
Protection class	IP 65/NEMA 4, 7, 9
Terminals	Terminal screws 4/2.5 mm <sup>2</sup> AWG 10-14
Cable entries	2 x M25 threaded hole
Enclosure	Aluminium die-casting, coated, with internal lid seal

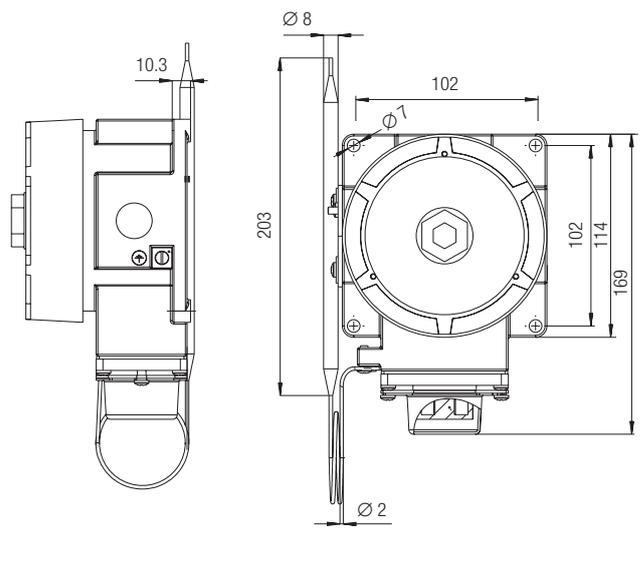
### Electrical data

Rated voltage	AC 6/12/24/125/250/480 V, 50/60 Hz
Switching current	for monitor 22 A at AC 6/12/24/125/250/480 V for limiter 16 A at AC 6/12/24/125/250 V, 15 A at AC 480 V
Contact	1 SPDT, 100,000 switching cycles

**Circuit diagram**



**Dimensions**



**Ordering information**

DTW flame-proof temperature monitor **27-6CA2-24112000**

DTB flame-proof temperature limiter **27-6CC2-14112000**

Technical data subject to change without notice.

2