



- 22 A switching capacity
- Flameproof enclosure
- ATEX, UL, CSA and FM approved

These thermostats are ideal for freeze protection or temperature control of trace heating circuits in hazardous area industrial applications. (Ex and Div). Heating circuits are switched on and off by means of the temperature controller when the temperature is above or below the setpoint. They can be used for monitoring temperature in the air or on surfaces. The DTB temperature limiter is designed with resetting lockout; resetting (restarting) is only possible on the device.

Function

DTW Controller:

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.

DTB Limiter:

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.

Explosion protection

Marking DTW-Ex, DTB-Ex	Ⓔ II 2G Ex d IIC T6 Ⓔ II 2D tD A21 IP 6X T80 °C
Certification	LCIE 08 ATEX 6073 X IECEx LCIE 14.0005 X
Marking DTW-1A, DTW-1L	CSA Certified, file LR34556 FM, UL, file E58658 EMI/RFI: to EN 55011
Certification	Class I, Div 1 and 2, Group B, C, & D Class II, Group E, F & G Class III

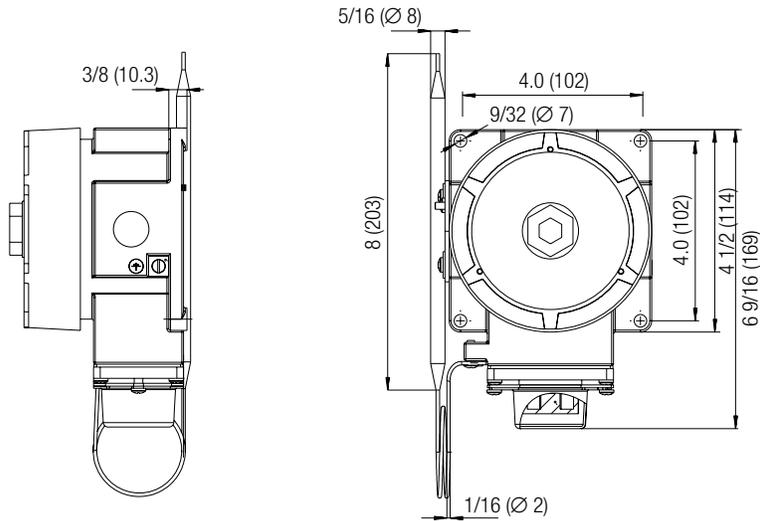
Electrical data

Rated voltage	AC 6/12/24/125/250/480 V, 50/60 Hz
Switch rating for controller	22 A at AC 6/12/24/125/250/480 V
Switch rating 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

Technical data

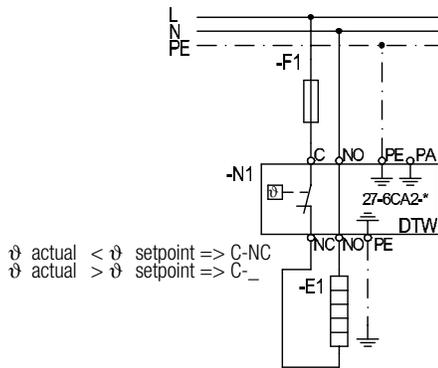
Temperature setting range	25 °F to +325 °F (-4 °C to +163 °C)
Ambient temperature range	-15 °F to +140 °F (-9 °C to +60 °C)
Operating temperature sensor	-40 °F to +420 °F (-40 °C to +215 °C)
Storage temperature	-40 °F to +140 °F (-40 °C to +60 °C)
Accuracy	±1% of full scale
Vibration	10 g's, 10 to 500 Hz, MIL-STD 202F
Shock	50 g's, 10 ms, MIL-STD 901C
EMI/RFI	to EN 55011
Capillary tube (made of stainless steel)	Length: 10 ft (3000 mm) Diameter: 1/16" (2 mm) Bending radius: 5/8" (15 mm) Operating range (line sense): -40 °F to +420 °F (-40 °C to +215 °C) Operating range (ambient sense): -40 °F to +160 °F (-40 °C to +71 °C)
Sensor (made of stainless steel)	Length: 8" (200 mm) Diameter: 5/16" (8 mm) Operating range (line sense): -40 °F to +420 °F (-40 °C to +215 °C) Operating range (ambient sense): -40 °F to +160 °F (-40 °C to +71 °C)
Weight	3.8 lbs. (1.7 kg)
Protection class	IP 65/NEMA 4, 7, 9
Terminals	Terminal screws 4/2.5 mm ² AWG 10-14
Cable entries	
DTW-1A, DTW-1L	3/4" NPT Female conduit
DTW-Ex, DTB-Ex	M25 Entry
Enclosure	Aluminium die-casting, lacquered, with internal lid seal

Dimensions (", resp. mm)

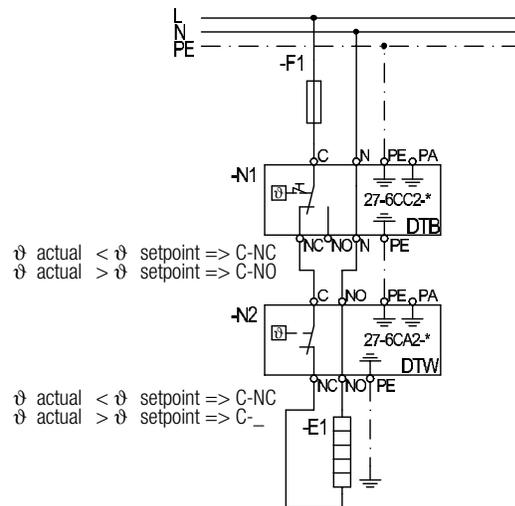


Circuit diagram

DTW-** Temperature Controller



DTB-** Temperature Limiter



Ordering information

Designation	Order no.
DTW-1A flameproof ambient sense controller	710146
DTW-1L flameproof line sense controller	710147
DTW-Ex flameproof line sense controller	246338
DTB-Ex flameproof temperature limiter	246345