

Capillary Thermostat exTHERM-AT

The explosion-proof surface-mounted thermostats of the exTHERM series are built to monitor and control temperatures in potentially ex-hazardous areas. The use in environments with gas and steam (zones 1 and 2); as well with conductive dust (zones 21 and 22) is permitted.

The exTHERM-AT is available as safety temperature monitor (STW). Thermostats work according to the liquid expansion or gas expansion principle. The electrical switching element is a pressure-resistant encapsulated thermostat with a snap-action switch. Stable switching points when ambient temperatures

fluctuate are made possible by the standard ambient temperature compensation. If the temperature on the temperature probe exceeds the setpoint value, the microswitch is activated by the transmission mechanics and the electrical circuit is opened or closed. If the temperature falls below the selected setpoint value (by the amount of the switching differential), the microswitch is reset to its initial position. If the measuring system is destroyed (i.e. if the expansion fluid escapes) the pressure in the membrane of the STW drops and permanently opens the electrical circuit. Unlocking is then no longer possible.

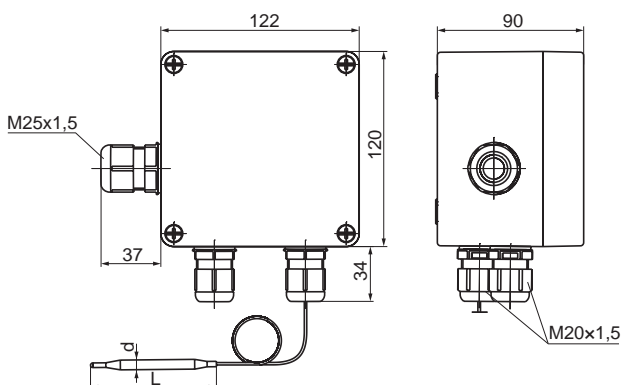
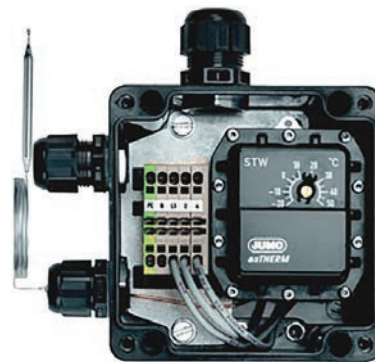
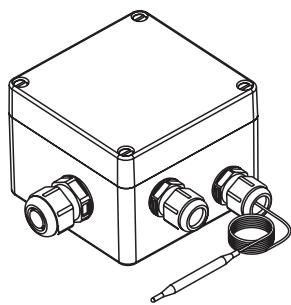
Features

- Can be directly applied in ex-hazardous areas zones 1 (21) and 2 (22)
- Switching capacity 25A
- Maintenance-free terminal clamps
- Status signal contact
- Approvals according to ATEX, IECEx

Application Areas

- Heat tracing systems
- Monitoring and controlling of thermal processes
- Freeze protection and temperature maintenance of pipelines and vessels in non-hazardous and ex-hazardous areas

Construction



Technical Data

Control temperature range	-20 ... +50 °C 0 ... +190 °C
Max. switching capacity	contact deck 1-2 AC 230 V +10 %, 25 (4) A, cos φ = 1 (0.6) contact deck 1-4 AC 230 V +10 %, 6.3 (2.5) A, cos φ = 1 (0.6)
Hysteresis	Approx. 7 %
Degree of protection	IP65
Weight	Approx. 1200 g
Cable entry	Ex cable gland M20×1.5, sealing area 6 to 13 mm Ex cable gland M25×1.5, sealing area 7 to 17 mm
Ambient temperature range	-40 ... +40 °C, T6 (+70 °C T4)
Capillary length	1000 mm
Capillary diameter	6 mm
Capillary material	Stainless steel (CrNi)
Dimension	Without cable glands 122×120×90 mm Incl. cable glands 159×154×90 mm
Installation type	Surface mounted

Approvals



II 2G Ex db eb IIC T4/T5/T6 Gb
II 2D Ex tb IIIC T85°C/T100 °C/
T130 °C Db
EPS 11 ATEX 1 354



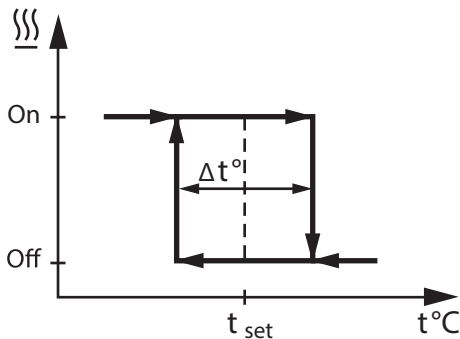
IECEX EPS 13.0046



EPS 11 ATEX 1 354 (SIL 2)



Function Diagram



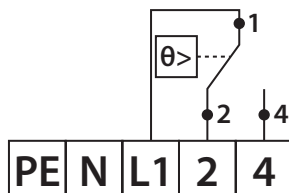
Marking

Example: exTHERM-AT(-20...+50)

① ②

1. Type of thermostat
2. Control temperature range

Wiring Diagram



Types

Name	Order code
exTHERM-AT(-20...+50)	3220001000
exTHERM-AT(0...+190)	3220001001