

TED1 and TED1/XP Plus

EEx ed Pipewall Sensing Thermostats

Product Specifications

Application . . .

Electric Heat Tracing Control

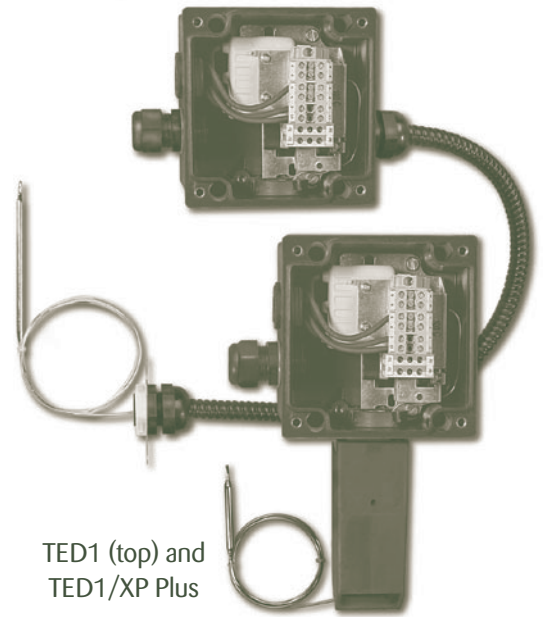
The TED1 and TED1/XP Plus are designed for use as adjustable control thermostats for freeze protection and temperature maintenance applications requiring pipewall or tankwall sensing. Each thermostat is available in four temperature control and bulb exposure temperature ranges.

The TED1 is designed to be wall-mounted (or pipe-mounted using Thermon's XP-1 stainless steel mounting bracket¹) and has a PVC coated galvanised steel flexible capillary armoured complete with capillary gland and insulation entry device. The TED1/XP Plus includes an expediter to facilitate attaching the thermostat directly on the pipe and permits one heating cable to enter and be connected within the enclosure. An optional manual reset button is available for the 50 - 300 C control range only (TED1-1-R-300).

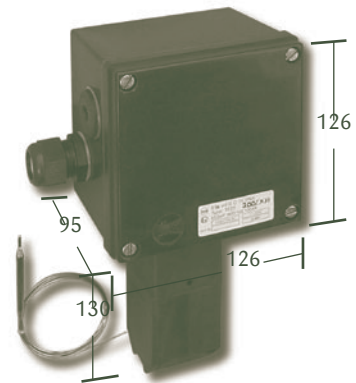
Both thermostats utilise nonmetallic enclosures suitable for harsh industrial environments to provide watertight and dusttight protection (IP65 with expediter IP66 wall mounting). External hardware is stainless steel. The TED1 and TED1/XP Plus are approved for use in ordinary (nonclassified) areas and are certified to the ATEX directive for use in Category 2 and 3 (Zone 1 and 2) classified areas.

Ratings/Specifications . . .

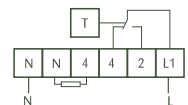
Voltage rating.....	250 Vac
Switch rating.....	16 A (Ohmic, NC contact)
Switch type	SPDT
Operating ambient Temp:	-30° to +55° C
Electrical connection ²	terminal block ³
Adjustable control range ⁴	
TED1-1-50.....	-20°C to 50°C
TED1-1-100.....	0°C to 100°C
TED1-1-200.....	0°C to 200°C
TED1-1-300.....	50°C to 300°C
Maximum control differential/accuracy	
TED1-1-50.....	3 - 5 % / +0 to -3°K
TED1-1-100.....	3 - 5 % / +0 to -4°K
TED1-1-200.....	3 - 5 % / +0 to -4°K
TED1-1-300.....	3 - 5 % / +0 to -10°K
Maximum bulb exposure temperature	
TED1-1-50.....	60°C
TED1-1-100.....	115°C
TED1-1-200.....	230°C
TED1-1-300.....	345°C
Bulb dimensions/material/capillary length	
TED1-1-50.....	6 x 150 mm/stainless steel/1 m
TED1-1-100.....	6 x 115 mm/stainless steel/1 m
TED1-1-200.....	6 x 101mm/stainless steel/1 m
TED1-1-300.....	6 x 63 mm/stainless steel/1 m
Approximate weight.....	1.5 kg
Max. electrical switching frequency.....	180 cycles/hour
Electrical durability operating cycles.....	min. 100.000 cycles
Mechanical durability oper. cycles.....	min. 300.000 cycles



TED1 (top) and TED1/XP Plus



Typical Wiring Diagram . . .



Certification/Approval . . .

CENELEC European Organisation for Electrotechnical Standardisation
 Hazardous (Classified) Locations
CE **Ex** II 2 G EEx ed IIC T5 Demko 02 ATEX 132023X

TED has additional hazardous area approvals including:

- GGTN • Kazakhstan

Notes . . .

1. Refer to Form TEP0057U for additional accessories.
2. Both thermostats are shipped with an M25-HPT/PWR-Exe EEx e approved power gland and an M25-B-Exe EEx e approved blind plug that can be replaced with an EEx e approved gland to permit power or heating cable connection.
3. Terminal block consists of six 4-mm² line/load terminals and two 4-mm² PE terminal.
4. The TED1-1-300/XP Plus is not available with an XP Plus expediter.



THERMON . . . The Heat Tracing Specialists®
 www.thermon.com

European Headquarters
 Boezemweg 25 • 2641 KG Pijnacker
 PO Box 205 • 2640 AE Pijnacker • The Netherlands
 Phone: +31 (0) 15-36 15 370 • Facsimile: +31 (0) 15-36 15 379

Corporate Headquarters
 100 Thermon Dr. • PO Box 609
 San Marcos, TX 78667-0609 • U.S.A.
 Phone: +1 512-396-5801 • Facsimile: +1 512-396-3627

