



& ASSOCIATES, INC.

heat tracing specialists

TraceMate

Heat Trace Controller



Controls

Description

The TraceMate is an electronic temperature control designed for indoor/outdoor use in non-hazardous or Class 1 Division 2 hazardous locations. It not only controls and monitors temperature, but also monitors your heating process for current and ground leakage with built-in GFEP. The TM is an ideal electronic control for heat trace and tubing bundle. Temperature sensing is achieved through a 100Ω, 3-wire platinum RTD mounted on the pipe. The TM can be installed locally or remotely under certain provisions. The TM eliminates the need for a separate ground fault breaker and the associated installation costs.

TraceMate's outstanding reliability ensures your time is spent producing, not troubleshooting. A comprehensive alarm package provides quick fault detection and a ground fault trip for optimal performance and safety. Spotting fault conditions is easy with the TraceMate's green light on the front door. You can also use the NO/NC alarm contacts to send a signal to a remote location.

The TM controls your heat tracing to a differential of only 3°C using solid-state controls and microprocessor-driven commands. The digital temperature setpoint offers fast, precise settings over a wide range. No mechanical thermostat can come close to matching the TraceMate's performance. The unit is self-contained, easy to configure and install. By combining the control, system monitoring and testing requirements of a heat trace control system into a single package, the TM facilitates significant, low-cost system upgrades. It is also readily customizable to meet your specific system requirements.

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Specifications

Range	-50 to +500°C (-58 to 932°F)
Accuracy/Repeatability	±4.5°F, ±1.8°F
RTD Input	Single 100Ω platinum, 3-wire 20Ω maximum lead resistance
Configuration	Single-pole, Double Pole control circuits 250A 1/2 cycle inrush
Ratings	120V-240VAC@30A
Ground Fault Measurement	0mA to 511mA; 1mA steps
Voltage Measurement	0 to 300VAC 3%±2V (Circuit 1 ONLY)
Control Power	From heater voltage 120V-240VAC, 2VA Fused
Protection	2A fuse MOV transient protection
Remote Monitoring	DC or AC alarm output for PLC or remote alarm indication
User Interface	12 position dip switch, Reset Heater Test (Dip Switch)
Panel Indicators	Power On, Heater On, Low/High Temp, Current Fail, Ground Fault, RTD Fail
User Definable Options	Heater Setpoint: Low/High Temp: 0°C to 511°C Steps; Units: °C or °F; Current Fail Setpoint: 0.0A to 30.0A, 0.1A Steps; Ground Fault Trip: 0mA to 511mA, 1mA Steps
Alarms	High/Low Temp, Current Fail, Ground Fault, RTD Fail, No Voltage, TraceCheck,
TraceCheck	Self-diagnostic exercises dormant systems every 24 hours for early warning for shutdown prevention. Status indicators show cause of alarms. Separate fail-safe local and remote alarms
Enclosure	NEMA-4X painted steel, Single Pole: 8"H x 6"W x 4"D; Double Pole: 10"H x 8"W x 4"D; (1)3/4" knockout; (2) 1/2" knockouts for RTD & Signal Wire
Approvals	CSA C/US Class I, Div. 2, Groups A, B, C, D

Features

- Temperature Control
- System Fault Alarm
- Early Warning
- Remote Monitoring
- Hazardous / Non-hazardous Area Usage
- Low Installed Cost



Ordering Information

Example Configuration	TM-1SIH1-E5-RTD-A1	
TM-	System Voltage	Ship Weight
TM-1SIH1-E5-RTD-A1	120VAC	8 Lbs.
TM-1DIH2-E5-RTD-A1	208VAC-240VAC	9 Lbs.
TM-1SIH1-E5-RTD-A1-277	277VAC	8 Lbs.