

Specifications

Temperature Range

Range: -50°C to 500°C, -58°F to 932°F
 Hysteresis: ±2°C, ±3.2°F
 Absolute Accuracy: ±2.5°C, ±4.5°F
 Repeatability: ±1°C, ±1.8°F
 RTD: 100 ohm platinum, 3-wire 20 ohms maximum lead resistance

Heater Switching

Configuration TM-1SIH1-xx: Single-pole, one SCR
 TM-1SIH1-xx-277V: Single-pole, one SCR
 TM-1DIH2-xx: Dual-pole, two SCRs, one per phase
 Ratings: TM-1SIH1-xx: 120Vac @ 30A
 TM-1SIH1-xx-277V: 277Vac @ 30 A
 TM-1DIH2-xx: 208~240VAC @ 30A
 250 amp 1/2 cycle inrush
 Line Frequency 50 or 60Hz

Control Power

Power Requirements Control power from heater voltage
 TM-1SIH1-xx: 120Vac, 10VA
 TM-1SIH1-xx-277V: 277Vac, 10VA
 TM-1DIH2-xx: 208~240VacC, 10VA
 Protection Control power from heater voltage protected by 2A fuse.
 MOV transient protection and RC snubber

User Interface

Heater Setpoint 12 position dip switch
 Reset/Heater Test dip switch
 Panel Indicators Power on
 Heater on
 Low temperature alarm
 High temperature alarm
 Current fail alarm
 Ground fault trip alarm
 RTD fail alarm

Environment

Approvals: CSA NRTL/C and FM
 Class I, Div.2, Groups A,B,C,D
 Class I, Zone 2, Groups IIC
 Operating Range: Single-pole: -40°C to +50°C
 Dual-pole: -40°C to +40°C
 Heater current derated
 Conformal Coating: Boards conformal coated for hostile environments.

User-Definable Options

Heater Setpoint:
 Low Temperature Alarm Setpoint:
 High Temperature Alarm Setpoint:
 0°C-511°C, 1°C steps
 0°F-511°F, 1°F steps
 Temperature Units: 0°C or °F
 Current Fail Alarm Setpoint: 0.0A-30.0A, 0.1 A steps
 Ground Fault Trip Alarm Setpoint: 0mA-511mA, 1 mA steps

Enclosure

Type: E5: Nema-4X steel, painted black
 E3: Nema-4X stainless steel, painted black
 Size: Single-pole: 8"Hx6"Wx4"D
 Dual-pole: 10"Hx8"Wx4"D
 Features: Quick release latches to open door
 One 1.125" conduit knockout for power and 0.843" & 0.875" conduit knocks for RTD and signal wiring.

Alarms

Low Temperature: Actual temperature < low temperature alarm setpoint **if the alarm is enabled**
 High Temperature: Actual temperature > high temperature alarm setpoint
 Current Fail: Heater current < current fail alarm setpoint
 Ground Fault Trip: Ground fault current > Ground fault trip alarm setpoint
 RTD Fail: RTD Open, RTD Short
 Hardware: No incoming voltage
 TraceCheck: Current Fail Alarm
 Configuration: NC/NO Contacts
 Alarm Output Rating: Form C dry contact: 12-277Vac@ 0.5A, 30VDC/0.1A.
 LED Indicator: 6VDC/50mA

Alarm Function

Temperature: Low Temperature Alarm
 High Temperature Alarm
 Current: Current Fail Alarm
 Ground Fault: Ground Fault Trip
 Hardware: RTD Open, RTD Short

