



Pipe Freeze Protection Controller | PT-DUAL

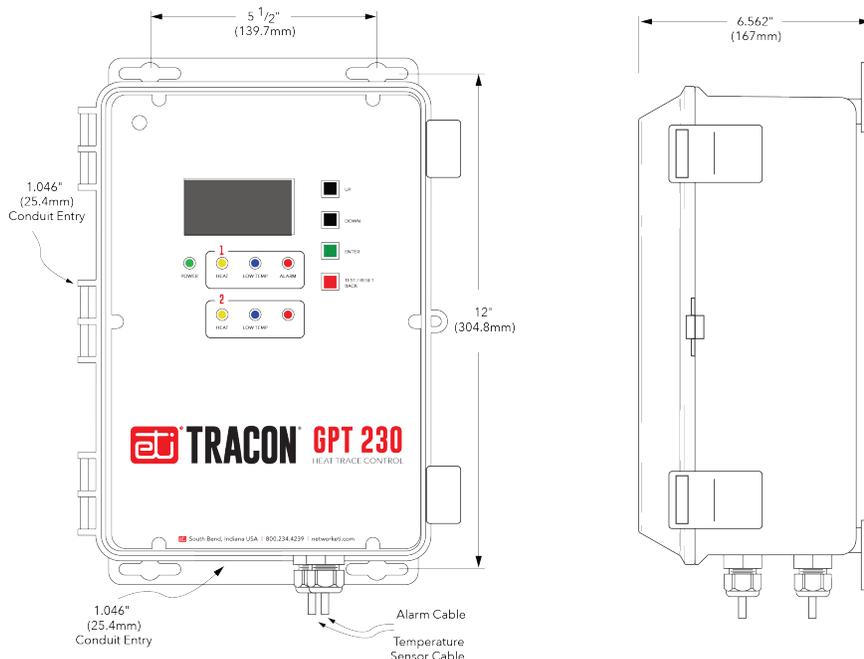
The PT-DUAL Heat-Trace Control is a dual-point microprocessor-based heat-trace control thermostat. It is ideal for applications which require two independent heater-control Channels with Ground-Fault Equipment Protection (GFEP). Ideal uses include freeze protection, hot water temperature maintenance, grease line trace, tank heating, and other temperature monitoring and control applications.

The PT-DUAL Heat-Trace Control operates from the heater's power source. A universal power supply allows the GPT 230 to operate from 100 V ac to 277 V ac. It can independently or jointly control two resistive loads up to 30 amps each.



Features

- Dual channel heat trace capabilities allows for complete control and monitoring of two separate channels from one unit
- Adjustable temperature setpoint allows precise control of a wide range of processes
- Can use an NEC Class 2 temperature sensors with up to 2,000 ft. cable for enhanced installation options
- Two Thermistor temperature sensors with 20 ft. cables included for applications of -40 °F to 230 °F (-40 °C to 110 °C)
- RTD input allows higher accuracy and extreme-temperature applications
- The unit can accommodate RTD sensors with 2-, 3-, or 4-wire configuration
- Temperature display for accurate adjusting and monitoring
- Load current display for accurate adjusting and monitoring
- Ground fault current display for accurate monitoring, protection, and alarm
- Adjustable alarm thresholds for excess ground fault current, load current, and temperature
- Alarms indicated with panel display and relay contact for remote signaling
- A Fault Mode setting which can be set to energize or de-energize the heaters during a sensor failure
- Fire Protection Mode maintains heater operation for use in critical fire protection systems
- Durable weather-resistant NEMA 4X IP66 enclosure permits indoor or outdoor installation



Specifications

Certifications	UL 60730-1, UL 1053, CSA E60730-1:13
Environmental	
Area Of Use	Nonhazardous Locations
Operating Temperature Range	40 °F to 122 °F (-40 °C to 50 °C)
Enclosure	
Dimensions	9.0" (W) 12 4/5" x (H) x 5 9/10" (D) 229 mm (W) x 325 mm (H) x 150 mm (D)
Ingress Protection	NEMA 4X, IP66
Cover Attachment	Polycarbonate cover
Cable Entries	Two liquid-tight cable glands installed for sensor and alarm leads, cable diameter 0.08" to 0.24" (2 mm to 6 mm) Two 1.046" holes to accommodate 3/4" conduit fittings for power wiring connections
Material	Polycarbonate
Weight	5.8 lb. (2.63 kg)
Mounting	Wall mount with flanges
Wiring Terminal Ratings	
Power	Barrier Strip Terminals for Line, Neutral, and Ground; use 10 AWG wires rated for at least 194 °F (90 °C)
Sensors	Terminal Block, rising cage clamp, 12-28 AWG leads
Alarm Relay	Terminal Block, rising cage clamp, 12-28 AWG leads
User Interfaces	
Pushbuttons	UP, DOWN, ENTER, TEST / RESET BACK
DIP Switches	RTD wiring configuration, Panel lockout
Parameter Settings	
Temperature Setpoint Heat ON	Adjustable -99.9 °F to 999 °F (-73.3 °C to 537.7 °C) Default 38 °F (3.33 °C)
Temperature Setpoint Heat OFF	Adjustable -99.9 °F to 999 °F (-73.3 °C to 537.7 °C) Default 40 °F (4.44 °C)
Low-Temperature Alarm Threshold	99.9 °F to 999 °F (-73.3 °C to 537.7 °C) Default 35 °F (-1.7 °C) Disabled
Low-Temperature Alarm Delay	0 s to 3000 s Default 300 s
High-Temperature Alarm Threshold	99.9 °F to 999 °F (-73.3 °C to 537.7 °C) Default 140 °F (60 °C) Disabled
High-Temperature Alarm Delay	0 s to 3000 s Default 300 s
Low-Current Alarm Threshold	0.0 A to 10.0 A Default 0.1 A Enabled
Low-Current Alarm Delay	0 s to 300 s Default 5 s Enabled
High-Current Alarm Threshold	0.0 A to 55.0 A Default 30.0 A Disabled
High-Current Alarm Delay	0 s to 600 s Default 300 s
Ground Fault Limit Current	1.0 mA to 300.0 mA Default 30 mA
Self-Test Interval	1 h to 250 h Default 24 h Enabled
Temperature Unit	°F or °C Default °F
Indicators	
Status Indicator	Power (Green), Heater (Yellow), Low Temperature (Blue), Summary Alarm (Red)
Display	2.7" OLED graphic 128x64
Summary Alarm Relay Reporting	Low temperature, High temperature, Low load current, High load current, High ground fault current, Stuck relay, Sensor fault, Internal fault
Control Ratings	
Temperature Accuracy	+/- 2 °F (1 °C)
Temperature Sensors	
Temperature Inputs	(Included) Two Thermistors: 100k ohms at 25 °C, range -40 °F to 230 °F (-40 °C to 110 °C), 20ft Lead (25076) RTD Sensor (SOLD SEPARATELY): Platinum, Alpha = 0.00385, ITS-90, 100 ohms at 0 °C Input supports 3-wire connection Sensor operates at 1 mA
Power	
Supply Voltage	100 - 277 V ac 50/60 Hz
Controller Power Consumption	7 W maximum, 2.2 W idle
Load Rating	30 A, 100 - 277 V ac resistive