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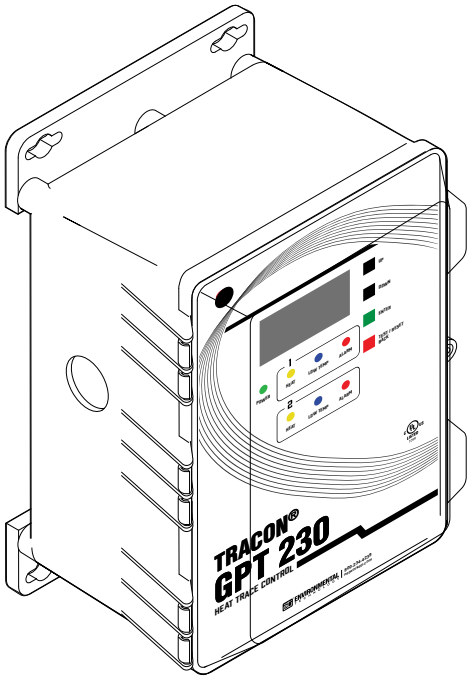
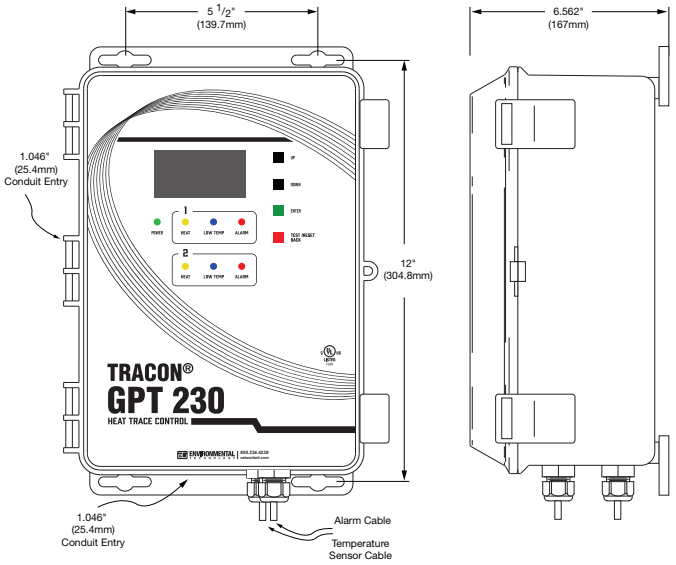
Dual–Point General Purpose Heat–Trace Control
TRACON MODEL GPT 230

DATA SHEET





The GPT 230 Dual Channel 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 GPT 230 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.

Adjustable Temperature Setpoint and Alarms

The temperature setpoints are adjustable from –99.9 °F to 999 °F (–73.3 °C to 537.7 °C) to a tenth degree resolution.

Sensor Inputs

The GPT 230 comes with two 100K ohm Thermistor temperature sensors with 20 ft. jacketed cables. The included sensors have an operating range of –40 °F to 230 °F (–40 °C to 110 °C). The GPT 230 can also use 2–, 3–, or 4–wire RTD sensors for systems requiring high–temperature sensing. Two temperature sensor inputs are provided, and the channels can operate independently or from one sensor.

Precision Monitoring and Control

The GPT 230 monitors temperature, load current, and ground leakage current. Alarms include high temperature, low temperature, high load current, low load current, ground fault, sensor fault, internal fault, and power fail. These alarms are easy to adjust and observe from the front panel. The GPT 230 can be set to energize or de-energize the heaters during a sensor fault.

Ground–Fault Equipment Protection

The GPT 230 Heat–Trace Control includes integral GFEP for each channel. This eliminates the extra expenses associated with having to provide separate GFEP components in the circuit panel. The GPT 230 normally disconnects power immediately to the affected zone when ground fault current exceeds the set value. But if it is set to Fire Protect mode, for critical fire protection systems, then it will generate the alarm but power will be maintained to prevent freezing.

Automatic GFEP Circuit Self–Test

To ensure continued safe operation, the GPT 230 performs a self–test of the GFEP circuits when power is first applied, along with a load ground fault test, and this repeats periodically thereafter at an adjustable interval.

For complete information describing its application, installation, and features, please contact Customer Service or check on the web at networketi.com.

Specifications

General

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 ¾" 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

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

User Interfaces

Pushbuttons	UP, DOWN, ENTER, TEST / RESET BACK
DIP switches	RTD wiring configuration Panel lockout

Remote Interface

Alarm relay	Isolated DPDT AMP Class 2 contact per channel

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: Platinum, Alpha = 0.00385, ITS–90, 100 ohms at 0 °C Input supports 2–wire, 3–wire, or 4–wire connection Sensor operates at 1 mA

GFEP (Ground–Fault Equipment Protection)

Operation	Continuously tests ground fault current whenever the load is on; also manually and periodically tests equipment ground fault current with each self–test.
Range	Adjustable 1 mA to 300 mA, Default 30 mA
Automatic self–test	Verifies GFEP functionality every 24 hr. and whenever the load is energized

Power

Supply voltage	100 – 277 V ac 50/60 Hz
Controller power consumption	7 W maximum, 2.2 W idle
Load rating, each channel	30 A, 100 – 277 V ac resistive

**Specifications are at 77 °F (25 °C) and are subject to change without notice.*

Ordering Information

Description	Part Number
Tracon MODEL GPT 230 Dual-Point General Purpose Heat–Trace Control	25171
Temperature Sensor	25076

Limited Warranty

ETI's two year limited warranty covering defects in workmanship and materials applies. Contact Customer Service for complete warranty information.

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