



## **TRACON MODEL FPT 130** SINGLE-POINT FREEZE PROTECTION HEAT-TRACE CONTROL

### THE FPT 130

Heat-Trace Control is a single-point microprocessor-based heat-trace control thermostat. It is ideal for applications which require Ground-Fault Equipment Protection (GFEP). Ideal uses include freeze protection, and other temperature monitoring and control applications.

The FPT 130 Heat-Trace Control operates from the heater's power source. A universal power supply allows the FPT 130 to operate from 100 V ac to 277 V ac, and control a resistive load up to 30 A.

### ADJUSTABLE TEMPERATURE SETPOINT AND ALARMS

The temperature setpoint is adjustable from 30 °F, 38 °F, 45 °F, or 50 °F (–1.1 °C, 3.3 °C, 7.2 °C, or 10 °C) to a tenth degree resolution.

### SENSOR INPUTS

The FPT 130 comes with a 100K ohm thermistor temperature sensor with a 20 ft. jacketed cable. The included sensor

has an operating range of –40 °F to 230 °F (–40 °C to 110 °C).

### PRECISION MONITORING AND CONTROL

The FPT 130 monitors temperature, load current, and ground leakage current. Alarms include low temperature, low load current, ground fault, sensor fault, internal fault, and power fail. These alarms are pre-set and easy to observe from the front panel.

### GROUND-FAULT EQUIPMENT PROTECTION

The FPT 130 Heat-Trace Control includes integral GFEP. This eliminates the extra expenses associated with having to provide separate GFEP components in the circuit panel. The FPT 130 normally disconnects power immediately when ground fault current exceeds 30 mA. 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 FPT 130 performs a self-test of the GFEP circuit when power is first applied, along with a load ground fault test, and this test repeats every 24 hours while power is applied if the load has not been energized.

For complete information describing its application, installation, and features, please contact Customer Service or check on the web at [networketi.com](http://networketi.com).

## ORDERING INFORMATION

| PART NUMBER | DESCRIPTION                                                            |
|-------------|------------------------------------------------------------------------|
| 25169       | Tracon MODEL FPT 130 Single-Point Freeze Protection Heat-Trace Control |
| 25076       | Temperature Sensor                                                     |

## SPECIFICATIONS

### GENERAL

Certifications UL 60730-1, UL 1053, CSA E60730-1:13

### ENVIRONMENTAL

Area of use Nonhazardous locations  
Operating temperature range  $-40^{\circ}\text{F}$  to  $131^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$  to  $55^{\circ}\text{C}$ )

### ENCLOSURE

Dimensions 8 1/8" (W) x 5 1/2" (H) x 4 3/8" (D)  
207 mm (W) x 140 mm (H) x 112 mm (D)  
Ingress protection NEMA 4X, IP66  
Cover attachment Polycarbonate cover, plastic screws  
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)  
One 1.046" hole to accommodate a 3/4" conduit fitting for power wiring connection  
Material Polycarbonate  
Weight 2.7 lb. (1.22 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  $194^{\circ}\text{F}$  ( $90^{\circ}\text{C}$ )  
Sensors Terminal Block, rising cage clamp, 12-28 AWG leads  
Alarm relay Terminal Block, rising cage clamp, 12-28 AWG leads

### PARAMETER SETTINGS

Temperature setpoints  $30^{\circ}\text{F}$ ,  $38^{\circ}\text{F}$ ,  $45^{\circ}\text{F}$ , or  $50^{\circ}\text{F}$   
( $-1.1^{\circ}\text{C}$ ,  $3.3^{\circ}\text{C}$ ,  $7.2^{\circ}\text{C}$ , or  $10^{\circ}\text{C}$ )  
Low-temperature alarm threshold  $32^{\circ}\text{F}$  ( $0^{\circ}\text{C}$ ) for  $38^{\circ}\text{F}$ ,  $45^{\circ}\text{F}$ , or  $50^{\circ}\text{F}$   
( $3.3^{\circ}\text{C}$ ,  $7.2^{\circ}\text{C}$ , or  $10^{\circ}\text{C}$ ) setpoints  
 $28^{\circ}\text{F}$  ( $-2.2^{\circ}\text{C}$ ) for  $30^{\circ}\text{F}$  ( $-1.1^{\circ}\text{C}$ ) setpoint  
Low-current alarm threshold 0.1 A  
Low-current alarm delay 5 s  
Ground fault limit current 30 mA  
Self-test interval 24 h  
High Temperature Threshold  $90^{\circ}\text{F}$  above setpoint  
Low Temperature Threshold 0.1A

### USER INTERFACES

Pushbuttons Test / Reset  
DIP switches Temperature setpoint Thermistor fault mode Fire protection mode

### REMOTE INTERFACE

Alarm relay Isolated SPDT 1 AMP Class 2 contact

### INDICATORS

Status indicator Power to the unit (Green solid)  
Calibration error (Green blinking)  
Call for heat (Yellow solid)  
Low current alarm (Yellow blinking)  
Stuck relay (Yellow blinking fast)  
Low temperature (Blue solid)  
Sensor fault (Blue blinking)  
Ground fault (Red solid)  
GFEP circuit failure (Red blinking)  
Summary alarm relay reporting Low load current  
High ground fault current  
Sensor fault  
Internal fault

### CONTROL RATINGS

Temperature accuracy  $\pm 2^{\circ}\text{F}$  ( $1^{\circ}\text{C}$ )

### TEMPERATURE SENSORS

Temperature inputs (Included) Thermistor, 100k ohms at  $25^{\circ}\text{C}$ , range  $-40^{\circ}\text{F}$  to  $230^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$  to  $110^{\circ}\text{C}$ ), 20ft Lead (25076)

### GFEP (GROUND-FAULT EQUIPMENT PROTECTION)

Threshold 30 mA  
Automatic self-test range Verifies GFEP functionality every 24 hr. and when the load is turned on

### POWER

Supply voltage 100 - 277 V ac 50/60 Hz  
Controller power consumption 5 W maximum, 2 W idle  
Load rating 30 A, 100 - 277 V ac resistive

*Specifications are at  $77^{\circ}\text{F}$  ( $25^{\circ}\text{C}$ ) unless otherwise stated and are subject to change without notice.*

## 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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