# intellitrace"

## HTLS

## **Heat Tracing Line Sensing Control Panel** Series 8000/12000/24000

- Color Touchscreen Operator **Panel**
- Eight/Twelve/Twenty-Four Points of Independent On/Off Control
- NEMA 4 Enclosure
- High/Low Temperature Alarms
- Continuity Alarming
- Ground Fault Alarming/Trip
- Open Sensor Alarm
- Common Alarm Output
- Load Management
- Internal Power Distribution (Includes Circuit Breakers)
- 120, 240, and 277 Vac
- Global Programming
- Auto-Cycle Feature
- Current Display
- Failed Sensor Output Setting
- Loop Enable/Disable
- Network Communications
- Hand/Off/Auto Selection



#### Description

The IntelliTRACE HTLS Series is a microprocessor based Control/Monitoring and Power Management/Distribution system for Heat Trace Applications.

The IntelliTRACE Multi-Channel Heat Trace System provides Alarms for High/Low temperature, continuity, ground fault leakage, and sensor faults. The Advanced Features include a Color Touchscreen Operator Interface Panel that provides simple programming with no keyboards or cryptic labels. The panel displays loop status, alarm conditions and graphics on process temperature, setpoints, and currents.

With the built-in power distribution, the IntelliTRACE multi-loop provides reduced material, installation, and maintenance costs. The load management feature eliminates the need for expensive ground fault breakers, limits inrush current and systematically interrogates all circuits for continuity, ground fault leakage, sensor faults, and temperature alarms.

#### Technical Specifications

Supply Voltage: 120, 240, and 277 Vac. Three-Phase

Operating Environment: 32 – 120°F  $(0 - 40^{\circ}C)$ 

Communications: RS-485 MODBUS®

**Input:** RTD 100  $\Omega$  Platinum Three-Wire.

Output: Two-Pole Contactors

Maximum Current: 24 Amps/circuit

Temperature Alarms: High/Low 2°F Deadband

Non-Latching

Ground Fault Alarm: Adjustable 25 – 500 ma Factory Set @ 30 mA

**Continuity Alarm:** < 2 amps Non-Latching.

Load Management: 15 sec. Non-Overlap to

Reduce Inrush.

Auto-Cycle: Programmable to 720 Hrs (30 days)

Failed Sensor Output Setting: 0-100%

Control Mode: On/Off with adjustable Deadband.



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### **Controls**

## **HTLS**

Heat Tracing Line Sensing Control Panel Series 8000/12000/24000

HTLS

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## Ordering Information

To Order — Complete the Model Number using the Matrix provided.

Note — Due to the nature of Division 1 hazardous location applications consultation with a factory representative is required.

### Model HTLS 8000 Series Line Sensing Heat Trace Panel Order Table

cUL Listed Eight Loop Line Sensing Temperature/Monitor Heat Trace Panel. Nema 4 Steel Enclosure 36"H x 30"W x 8"D. Includes: Complete Prewired Controller, Two-Pole Contactors, Current Transformer to Measure Operating Currents, High/Low Temperature Alarms, On/Off Control, RTD Sensor Input, Color Touchscreen Programming, GFI Indication or Shutdown, Common Alarm Output, Hand/Off/Auto Selection, Loop Enable/Disable and Auto-Cycle Feature.

| Code |      |   | Eight Inc  | dependen                                | nt Loops of Heat Trace Control  |  |  |  |  |  |
|------|------|---|--|---|---|--|--|--|--|--|
| 8    |      |   |  |   |   |  |  |  |  |  |
|      | Code | Voltage   |  |   |   |  |  |  |  |  |
|      | 0    |   | 120 Vac (Includes Single-Pole Circuit Breakers) 208Y/120 Vac Three Phase Four-Wire 240 Vac (Includes Double-Pole Circuit Breakers) 240Vac Three Phase Three-Wire Delta |   |   |  |  |  |  |  |
|      | 1    |   |  |   |   |  |  |  |  |  |
|      | 2    | 277 Vac (Includes Single-Pole Circuit Breakers) 480Y/277 Vac Three-Phase Four-W Code Circuit Breaker Rating Selection |  |   |   |  |  |  |  |  |
|      |      |   |  |   |   |  |  |  |  |  |
|      |      | 1   |  | 15 amp                                  | 15 amp Thermal Magnetic circuit Breaker 20 amp Thermal Magnetic Circuit breaker |  |  |  |  |  |
|      |      | 2   |  | 20 amp                                  |   |  |  |  |  |  |
|      |      | 3   |  | 30 amp Thermal Magnetic Circuit Breaker |   |  |  |  |  |  |
|      |      |   | Code<br>O  |   | Cabinet Heater  |  |  |  |  |  |
|      |      |   |  |   | None  |  |  |  |  |  |
|      |      |   | 1  |   | Thermostat Controlled Enclosure heater  |  |  |  |  |  |
|      |      |   |  | Code                                    | Pressurization Control System   |  |  |  |  |  |
|      |      |   |  | 0                                       | None  |  |  |  |  |  |
|      |      |   |  | 1                                       | Type Z for Class I Division II Hazardous Location                               |  |  |  |  |  |
|      |      |   |  |   |   |  |  |  |  |  |
|      |      |   |  |   |   |  |  |  |  |  |
|      |      |   |  |   |   |  |  |  |  |  |
|      |      |   |  |   |   |  |  |  |  |  |
| 8    | 2    | 3   | 1  | 1                                       | Typical Model Number  |  |  |  |  |  |

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### **Controls**

## HTLS

Heat Tracing Line Sensing Control Panel Series 8000/12000/24000

HTLS

(cont'd.)

#### Ordering Information

**To Order** — Complete the Model Number using the Matrix provided.

Note — Due to the nature of Division 1 hazardous location applications consultation with a factory representative is required.

### Model HTLS 12000 Series Line Sensing Heat Trace Panel Order Table

cUL Listed Twelve Loop Line Sensing Temperature/Monitor Heat Trace Panel. Nema 4 Steel Enclosure 48"H x 36"W x 10"D. Includes: Complete Prewired Controller, Two-Pole Contactors, Current Transformer to Measure Operating Currents, High/Low Temperature Alarms, On/Off Control, RTD Sensor Input, Color Touchscreen Programming, GFI Indication or Shutdown, Common Alarm Output, Hand/Off/Auto Selection, Loop Enable/Disable and Auto-Cycle Feature.

| Code | Twelve Independent Loops of Heat Trace Control |             |  |   |  |  |  |  |  |
|------|--|-------------|--|---|--|--|--|--|--|
| 12   |  |             |  |   |  |  |  |  |  |
|      | Code   |             | Voltage  |   |  |  |  |  |  |
|      | 0  |             | 120 Vac  | (Includes   | Single-Pole Circuit Breakers) 208Y/120 Vac Three Phase Four-Wire |  |  |  |  |
|      | 1  |             | 240 Vac (Includes Double-Pole Circuit Breakers) 240 Vac Three Phase Three-Wire D |   |  |  |  |  |  |
|      | 2  |             | 277 Vac  | Includes Single-Pole Circuit Breakers) 480Y/277 Vac Three-Phase Four-Wire   |  |  |  |  |  |
|      |  | Code        |  | Circuit   | Breaker Rating Selection   |  |  |  |  |
|      |  | 1<br>2<br>3 |  | 15 amp Thermal Magnetic circuit Breaker<br>20 amp Thermal Magnetic Circuit breaker<br>30 amp Thermal Magnetic Circuit Breaker |  |  |  |  |  |
|      |  |             |  |   |  |  |  |  |  |
|      |  |             |  |   |  |  |  |  |  |
|      |  |             | Code   |   | Cabinet Heater   |  |  |  |  |
|      |  |             | 0  |   | None   |  |  |  |  |
|      |  |             | 1  |   | Thermostat Controlled Enclosure heater                           |  |  |  |  |
|      |  |             |  | Code  | Pressurization Control System                                    |  |  |  |  |
|      |  |             |  | 0   | None   |  |  |  |  |
|      |  |             |  | 1   | Type Z for Class I Division II Hazardous Location                |  |  |  |  |
|      |  |             |  |   |  |  |  |  |  |
|      |  |             |  |   |  |  |  |  |  |
|      |  |             |  |   |  |  |  |  |  |
|      |  |             |  |   |  |  |  |  |  |
| 12   | 2  | 3           | 1  | 1   | Typical Model Number   |  |  |  |  |

Multi-loop Controllers



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### **Controls**

## **HTLS**

**Heat Tracing Line Sensing Control Panel** Series 8000/12000/24000

(cont'd.)

### **Ordering** Information

To Order — Complete the Model Number using the Matrix provided.

Note — Due to the nature of Division 1 hazardous location applications consultation with a factory representative is required.

#### HTLS 24000 Series Line Sensing Heat Trace Panel Order Table Model

HTLS

cUL Listed Twenty-Four Loop Ambient Sensing Temperature/Monitor Heat Trace Panel. Floor-Mount Nema 4 Steel Enclosure 60"H x 60"W x 12"D. Includes: Complete Prewired Controller, Two-Pole Contactors, Current Transformer to Measure Operating Currents, High/Low Temperature Alarms, On/Off Control, RTD Sensor Input, Color Touchscreen Programming, GFI Indication or Shutdown, Common Alarm Output, Hand/Off/ Auto Selection, Loop Enable/Disable and Auto-Cycle Feature.

| Code |      | 1   | wenty-F  | our Inde  | pendent Loops of Heat Trace Control               |  |  |  |  |
|------|------|---|--|---|---|--|--|--|--|
| 24   |      |   |  |   |   |  |  |  |  |
|      | Code | Voltage   |  |   |   |  |  |  |  |
|      | 0    | 1   | 120 Vac (Includes Single-Pole Circuit Breakers) 208Y/120 Vac Three Phase Four-Wire 240 Vac (Includes Double-Pole Circuit Breakers) 240Vac Three Phase Three-Wire Delta |   |   |  |  |  |  |
|      | 1    | 2   |  |   |   |  |  |  |  |
|      | 2    | 277 Vac (Includes Single-Pole Circuit Breakers) 480Y/277 Vac Three-Phase Fo |  |   |   |  |  |  |  |
|      |      | Code  |  | Circuit Breaker Rating Selection  |   |  |  |  |  |
|      |      | 1   |  | 15 amp Thermal Magnetic Circuit Breaker 20 amp Thermal Magnetic Circuit breaker |   |  |  |  |  |
|      |      | 2   |  |   |   |  |  |  |  |
|      |      | 3   |  | 30 amp  | Thermal Magnetic Circuit Breaker                  |  |  |  |  |
|      |      |   | Code   | · ·   | Cabinet Heater                                    |  |  |  |  |
|      |      |   | 0  |   | None  |  |  |  |  |
|      |      |   | 1  |   | Thermostat Controlled Enclosure heater            |  |  |  |  |
|      |      |   |  | Code  | Pressurization Control System                     |  |  |  |  |
|      |      |   |  | 0   | None  |  |  |  |  |
|      |      |   |  | 1   | Type Z for Class I Division II Hazardous Location |  |  |  |  |
|      |      |   |  |   | ,   |  |  |  |  |
|      |      |   |  |   |   |  |  |  |  |
|      |      |   |  |   |   |  |  |  |  |
| 24   | 2    | 3   | 1  | 1   | Typical Model Number                              |  |  |  |  |

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