

**intelliTRACE**<sup>®</sup>

**HTLS**

## Dual-Loop Heat Tracing Line Sensing Control Panel



- **Solid State Relay Output Rated 30 Amps**
- **Universal Inputs**
- **NEMA 4X Enclosure**
- **Ground Fault Alarm/Trip**
- **Programmable High/Low Temperature Alarms**
- **Programmable Low Current Alarm**
- **Optional RS-485 MODBUS<sup>®</sup> Communications**
- **120, 208, 240, and 277 VAC**

### *Description*

The Chromalox HTLS series panels are microprocessor based temperature control and monitoring units for heat tracing used in freeze protection and process temperature control applications.

This series of panels can be configured for ambient or line sensing control. The HTLS series implement a scaleable design such that they can be configured with or without communications, ground fault monitoring or enclosure heater.

This unique format offers a design that can be tailored both by price and features to meet the most challenging demands in heat trace applications. For example: The HTLS series can be networked together via RS-485 MODBUS and the Chromalox Windows based Chromasoft SpecView software package.

The optional ground fault monitoring addresses the national electric code requirements and reduces the cost of installing costly ground-fault circuit breakers. In the event of sub-zero temperatures the optional enclosure heater is available.

The HTLS series have programmable inputs (thermocouple, RTD, mA, VDC), On/Off or PID control, Auto-tune function, High/Low temperature alarms, current alarm, and sensor failure indication. The heat tracing circuit is switched by a 30 Amp solid state relay rated at 40°C ambient.

The Chromalox HTLS series panel comes ready to install and includes control and power wiring terminal blocks for field connections.

### *Applications*

- Freeze Protection
- Fuel Gas Preheating and Superheating
- Fuel Oil Preheating
- Hydrocarbon and Chemical Product Piping
- Power Generation Plants

### *Technical Specifications*

Supply Voltage:	120, 208, 240, and 277 Vac
Operating Environment:	32 - 104°F (0 - 40°C) -32 - 104°F (-34 - 40°C) with enclosure heater option
Communications:	RS-485 MODBUS <sup>®</sup>
Input:	Thermocouple J, K, L, N, R, S, RTD, Current, Voltage Field Programmable for C or F
Output:	Solid State Relay rated @ 30 amps @ 40°C
Current Alarm (Low):	0 - 30 amps in 1 amp increments
Ground Fault Alarm Trip:	5 - 100mA
Temperature Alarms:	Process, Deviation, Band, High/Low, Latching/ Non-Latching (Manual/Automatic Reset) Programmable.
Control Modes:	Field Selectable On/Off, PID, SMART

# Heating Cable

**intelliTRACE®**

**HTLS**

Dual-Loop Heat Tracing  
Line Sensing Control Panel  
*(cont'd.)*

<b>Model</b>	<b>IntelliTRACE 20000 Series Line Sensing Heat Trace Panel</b>					
<b>HTLS</b>	<b>Panel Configuration</b>					
	cUL and UL Listed Dual Loop Line Sensing Temperature/Monitor Heat Trace Panel. Factory pre-wired for quick installation. Includes: Solid State Relays, Current Transformers, High-Low Temperature Alarms, Low Current Alarms, On/Off or PID Control, Universal Sensor Inputs, Dual Digital Displays, Terminal Blocks for Field Connections, Loop Enable/Disable, NEMA 4X rated Enclosure (16"H x 14"W x 8"D) for Indoor/Outdoor Applications. Options Include: Ground Fault Monitoring and Selectable Shutdown, GFI Thermal Magnetic Circuit Breakers, Enclosure Heater and RS-485 Communications.					
<b>Code</b>	<b>Dual Loop of Heat Trace Control</b>					
<b>2</b>	Solid State Relay Control Rated 30 Amps @ 40°C Ambient					
<b>2C</b>	Electromechanical Contactor Control Per Loop Rated 30Amps Per Loop @ 40°C Ambient					
	<b>Code</b>	<b>Voltage</b>				
	<b>0</b>	120 Vac	Single Phase			
	<b>1</b>	240 Vac	Single Phase			
	<b>2</b>	277 Vac	Single Phase			
	<b>3</b>	208 Vac	Single Phase			
	<b>Code</b>	<b>Controller Options</b>				
	<b>0</b>	IntelliTRACE Controllers (Code 2 Solid State Relay)				
	<b>1</b>	IntelliTRACE Controllers with Communications (Code 2 Solid State Relay)				
	<b>2</b>	IntelliTRACE Controllers (Code 2C Contactor Control)				
	<b>3</b>	IntelliTRACE Controllers with Communications (Code 2C Contactor Control)				
	<b>Code</b>	<b>Ground Fault Monitoring Options</b>				
	<b>0</b>	None				
	<b>1</b>	Ground Fault Monitors 120Vac (Includes Shutdown Contactors and Illuminated Reset switch)				
	<b>2</b>	Ground Fault Monitors 240Vac (Includes Shutdown Contactors and Illuminated Reset switch)				
	<b>3</b>	Ground Fault Monitors 277Vac (Includes Shutdown Contactors and Illuminated Reset switch)				
	<b>4</b>	Ground Fault Monitors 208Vac (Includes Shutdown Contactors and Illuminated Reset switch)				
	<b>5</b>	Two 1-Pole Breakers, 120 Vac, 15 Amp Circuit Breakers w/30 mA Ground Fault Equipment Protection				
	<b>6</b>	Two 1-Pole Breakers, 120 Vac, 20 Amp Circuit Breakers w/30 mA Ground Fault Equipment Protection				
	<b>7</b>	Two 1-Pole Breakers, 120 Vac, 25 Amp Circuit Breakers w/30 mA Ground Fault Equipment Protection				
	<b>8</b>	Two 1-Pole Breakers, 120 Vac, 30 Amp Circuit Breakers w/30 mA Ground Fault Equipment Protection				
	<b>A</b>	Two 1-Pole Breakers, 277 Vac, 15 Amp Circuit Breakers w/30 mA Ground Fault Equipment Protection				
	<b>B</b>	Two 1-Pole Breakers, 277 Vac, 20 Amp Circuit Breakers w/30 mA Ground Fault Equipment Protection				
	<b>C</b>	Two 1-Pole Breakers, 277 Vac, 30 Amp Circuit Breakers w/30 mA Ground Fault Equipment Protection				
	<b>E</b>	Two 2-Pole Breakers, 208/240 Vac, 15 Amp Circuit Breakers w/30 mA Ground Fault Equipment Protection				
	<b>F</b>	Two 2-Pole Breakers, 208/240 Vac, 20 Amp Circuit Breakers w/30 mA Ground Fault Equipment Protection				
	<b>G</b>	Two 2-Pole Breakers, 208/240 Vac, 25 Amp Circuit Breakers w/30 mA Ground Fault Equipment Protection				
	<b>H</b>	Two 2-Pole Breakers, 208/240 Vac, 30 Amp Circuit Breakers w/30 mA Ground Fault Equipment Protection				
	<b>Code</b>	<b>Enclosure Heater</b>				
	<b>0</b>	None				
	<b>1</b>	Thermostat Controlled Enclosure Heater				
<b>HTLS -</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>Typical Model Number</b>

DUAL LOOP  
CONTROL PANEL