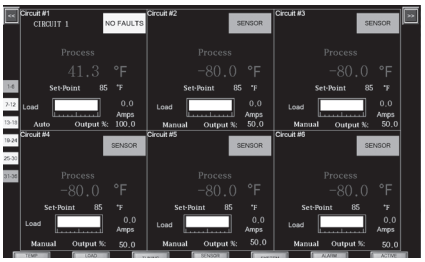
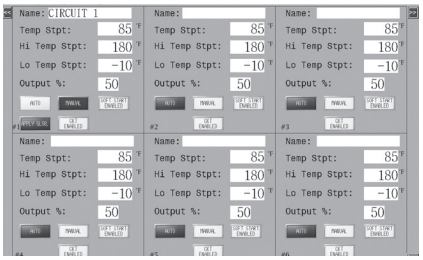
IntelliTrace

ITAS/ITLS
ITAS/ITLS-EXT

Multiloop Heat Tracing Control Panel – Line/Ambient Sensing

- 10” or 7” Touch Screen HMIVAC
- 40 Amps/Circuit @100-600 VAC
- 2 Circuits to 72 Circuits
- NEMA 4 or NEMA 4X Enclosure
- SCR Control
- Optional Wireless Temperature Sensing
- Integral Circuit Panel with Circuit Breakers
- Optional Main Breaker
- Soft Start Feature
- Full Communications
- Full Alarm and Monitoring Capabilities on GFEP, Temperature, Sensor, Current Load & Communications
- Customizable Sensor Mapping
- Optional Enclosure Heater
- UL, cUL
- Optional CE





The 10” or 7” Touch Screen Computer provides real time display of process variable, set point, load current, load demand (%), operation mode type, alarm status and alarm type for any 2 or 6 circuits at a time as well as alarm status for all other circuits.

The Quick Launch buttons take you to any other 2 or 6-circuit real time display screen as well as the Setup, Fault, Log or Communication Screen. All set point, alarm, security, time, circuit identification, sensor mapping, tuning, communications and control type mode settings are easily accomplished through the intuitive & familiar Windows based menu screens.
All of these functions are achievable locally or remotely via wired or wireless communications.

Description

The IntelliTrace ITAS and ITLS Series is a microprocessor based Control/Monitoring and Power Management system for Ambient Sensing, Line Sensing or a combination of Line and Ambient Sensing Heat Trace Applications and is suitable for use in ordinary areas.

The base panels will handle 2 - 48 circuits and may be increased up to 72 circuits with the Extension Panels. A 2 to 4 circuit extension panel may be added to a 6-48 circuit panel but not vice versa. Each circuit has a 40 Amperage capacity and accepts 100 to 600 VAC service. The SCR Control may be set to Automatic, which includes PID or On/Off control or to Manual, which spans a 0% to 100% control output.

The HMI is a 10” (25 cm) or 7” (17cm) user friendly touch screen computer. It displays the process variable, temperature setpoint, alarm status, current load, control mode, sensor failure manual override output for any 2 or 6 circuits at a time as well as the alarm status for all other circuits.

The standard enclosure is rated for NEMA 4 environments and an optional NEMA 4X 304 SS enclosure is available.

The ITAS / ITLS Control Panel Series provide alarms for high and low temperatures, current load, communications, sensor faults and ground fault leakage. There are several output/control behavior scenarios for the ground fault (GFEP) alarm condition. Choices include Trip and/or Latch options in which both, either or none may be enabled. Trip sets the output to zero %, while Latch requires a manual reset. Alarm events are automatically logged and stored for easy access.

Advanced standard features include a proprietary soft start function, off duty Auto Cycle maintenance program and either Modbus RTU/RS485 or Ethernet communications. Optional features include an industry leading Sensor Mapping** function, remote monitoring and wireless communications.

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Multiloop Heat Tracing Control Panel – Line/Ambient Sensing

Advanced Features

Soft Start Feature
Certain heating cables exhibit inherent current inrush in colder temperatures. This inrush can cause nuisance breaker tripping. To limit inrush current on the overall system, a proprietary Soft Start algorithm is applied during system start-up. This will ONLY occur while the operation mode is set to AUTO. After the Soft Start program completes its cycle, the Control Mode of the system will either be PID or ON/OFF Control Mode, depending on what was selected by the user. The default setting of the Soft Start Feature for each circuit is "enabled". However, the Soft Start Feature may be disabled if so desired by the owner. The owner has the option to independently manage the Soft Start Feature on each circuit.

Auto Cycle Feature
During prolonged downtime periods, typically during the summer months, it is advisable to intermittently exercise the system circuits. This exercising of the circuits is accomplished via the Autocycle feature. On a sequential circuit basis, the Autocycle feature periodically monitors system performance between 1-999 hours. This provides a certain level of predictive maintenance of the system as Faults (Alarms) will present themselves accordingly. Problem areas may be addressed during non-essential operating periods. The owner has the option to engage or disengage the Autocycle feature at any time.

Sensor Mapping**
When factory enabled, the ITLS & ITLSC1D2 Models provide the owner with customizable Sensor Mapping. This becomes a very powerful and desirable feature when the owner needs added flexibility in controlling the circuit outputs beyond the standard single sensor input.

Sensor Mapping is the assignment of one or more Sensor Inputs to one or more output circuits.

More on Sensor Mapping

A single sensor (RTD) may be mapped (or linked) to multiple Output Circuits. This allows several circuits to be controlled by a single sensor.
Ambient or Line Sensing -
Single Sensor:

Minimum, Maximum, Averaging
Several sensors may be mapped to a single output circuit. This allows a single circuit to be controlled by the Minimum or the Maximum or the Average temperature of all of the sensors mapped to that output circuit. This may be desirable on long runs or zones which realize varying temperatures or weather conditions at different times of the day.

Multiple Sensor Mapping
A single sensor may be used independently or combined with other sensors to control more than one circuit.

Combining Sensing Types
The owner may need to have multiple Line and/or Ambient Sensing control scenarios occurring simultaneously.**

Available only on ITLS & ITLS-EXT

Touch Screen Computer:

- 2 or 6 Circuit displayed/screen
- Quick launch to any 2 or 6 circuit group, Setup Menu or System Screens
- Full User Setting Capabilities - Specific Circuit Naming/Identification, Baud rate, set points, units, alarms, etc.
- Remote Desktop Monitoring

Optional Features:

- NEMA 4X 304 SS Enclosure
- Fully Customizable Sensor Mapping**
- Enclosure Heater

IntelliTrace

ITAS/ITLS
ITAS/ITLS-EXT

Multiloop Heat Tracing Control Panel – Line/Ambient Sensing

Technical Specifications

Panel Specifications

Supply Voltage:	100 - 600 VAC, 3 phase
Operating Environment:	-40 to +104°F (-40 to +40°C)* Enclosure heater required for Ambient Temperatures below 32°F (0°C)
Enclosure:	NEMA 4 or Optional NEMA 4X 304 SS
Enclosure Size:	See Model Description Tables
Communications:	Modbus RTU/RS-485, Ethernet
Alarms:	Hi/Lo Temp, GFEP – 20 mA to 150 mA, Hi/Lo Current – 0.1 to 50A or off
Input:	100 Platinum 3-wire RTD
Output:	SCR, Zero cross fired
Current Maximum:	40 Amps/Circuit at 104°F (40°C)
Auto-Cycle:	1-999 hours/off
Failed Sensor Output Setting:	0 – 100%
Control Mode:	Auto, Manual (Hand), Off
	Auto: PID or ON/OFF with adjustable dead band
	Manual: 0% - 100% output, 1% increment
Load Management:	DOT (Demand On Transfer) timing, with Soft Start
Approvals:	.UL, cUL Listed. Optional CE Certification
Area Classifications:	Ordinary Areas
Temperature Rating	T4A (UL) (Derate to T3 & Groups B, C, D when using enclosure heater)

IntelliTrace ITAS/ITLS

Multiloop Heat Tracing Control Panel – Line/Ambient Sensing 2-48 Circuits

Model **Product Description**

ITLS or ITAS IntelliTRACE Line/Ambient Sensing Heat Trace Panels are Designed for Industrial applications in Non-Hazardous Areas. IHTP series offers the following standard features: NEMA 4 enclosure,Industrial 10" (7" for 2 and 4 Loop Models) Digital CE Computer Touchscreen Controller Rated at 40A Per Circuit at 104°F (40oC) Ambient, Two to Forty-Eight Circuits (Expandable to Seventy-Two Circuits*), Common Alarm Output, Operator Interface, PID SCR Power, Hand/Off/Auto Operation Breaker for Instrument Power Included, Current Monitoring, 30 mA Ground Fault Equipment Protection, ModBus RTU/RS485 or TCP/Ethernet Communications, Lockout Capable Breakers, UL & cUL Third Party Compliance. Options Include: NEMA 4X SS Enclosure, Copper Ground Bar (Standard is Aluminum), Remote Monitoring Capability,Thermostat Controlled Enclosure Heater, Heater Power and RTD Terminal Blocks, Wireless Ethernet Communications, CE Third Party Compliance.

Code **Circuits**

02	2 Circuits	**24**	24 Circuits
04	4 Circuits	**30**	30 Circuits
06	6 Circuits	**36**	36 Circuits
12	12 Circuits	**42**	42 Circuits
18	18 Circuits	**48**	48 Circuits

Code **Line Voltage** **Cable Voltage**

1	208/120 VAC, 3 Phase 4 Wire	120 V- 1 Pole or 208 V - 2 Pole
2	240/120 VAC, Single Phase 3 Wire	120 V- 1 Pole or 240 V - 2 Pole
3	480/277 VAC, 3 Phase 4 Wire	277 V- 1 Pole or 480 V - 2 Pole

Code **Cable Load Circuit Breaker Rating (Multiply the Number of Circuits by the Circuit Breaker Price)**

0(*)	None	**3(*)**	30A Thermal Magnetic	**Select Breaker Amperage and**
1(*)	15A Thermal Magnetic	**4(*)**	40A Thermal Magnetic	***1P/2P to Select Breaker Voltage**
2(*)	20A Thermal Magnetic	**5(*)**	50A Thermal Magnetic	**1(1P)=15A, 120V Breakers**

Code **Main Disconnect** **Typical Voltage**

0	None	None	**6**	125A Thermal Magnetic	277/480V 3P
1	30A Thermal Magnetic	277/480V 3P	**7**	150A Thermal Magnetic	120/208V 3P
2	50A Thermal Magnetic	120/208V 3P, 120/240V 1P, 277/480V 3P	**8**	175A Thermal Magnetic	120/240V 1P, 277/480V 3P
3	70A Thermal Magnetic	277/480V 3P	**9**	225A Thermal Magnetic	120/208V 3P, 120/240V 1P, 277/480V 3P
4	80A Thermal Magnetic	120/240V 1P	**X**	Other (If Main Disconnect is needed ontact Factory for Assistance)	
5	100A Thermal Magnetic	120/208V 3P, 120/240V 1P			

Code

0	No Enclosure Heater
1	Thermostat Controlled Enclosure Heater (Anti-Condensation Heater)
2	Thermostat Controlled Enclosure Heater (Needed for 0°F, -18°C Minimum Ambient Temperature)
3	Thermostat Controlled Enclosure Heater (Needed for -40°F/°C Minimum Ambient Temperature)

Code

0	None
1	HMI Sunshield (Req'd. if Panel is to be outdoors)
2	Panel Weathershield
3	Heater Power and RTD Terminal Blocks
4	Z-purge system
5	Panel Light (on separate breaker)
6	Powered Receptacle (on separate breaker)
7	Copper Ground Bar
A	Loss of Power Relay
B	Floor Stands for 12" Deep Panel
C	Floor Stands for 16" Deep Panel
X	Other (If multiple options needed contact factory)

Code **Number of 100 Ohm RTD Sensor Inputs (must be multiple of 6, up to 48 inputs, MAXIMUM 3 RTD's per heater circuit)**

1	6 (Use this option if Ambient Sensing panel is desired)	**6**	36
2	12	**7**	42
3	18	**8**	48
4	24	**9**	Other (Call Factory for Assitance)
5	30		

Code **Communications**

1	Standard: ModBus RTU/RS485 or Modbus TCP/Ethernet
2	ModBus TCP/Wireless
9	Other

Code **Temperature Sensing Solutions**

1	Standard Wired Sensing
2	Wireless Sensing
3	Dry Contact Closure for Ambient Sensing Thermostat

Code **Enclosure (size determined by table 1)**

1	NEMA 4 Single-Door Wall-Mount Steel Enclosure 24 X 24 X 12	**A**	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 24 X 24 X 12
2	NEMA 4 Single-Door Wall-Mount Steel Enclosure 30 X 30 X 12	**B**	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 30 X 30 X 12
3	NEMA 4 Single-Door Wall-Mount Steel Enclosure 42 X 36 X 12	**C**	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 42 X 36 X 12
5	NEMA 4 Single-Door Wall-Mount Steel Enclosure 60 X 36 X 12	**E**	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 60 X 36 X 12
6	NEMA 4 Single-Door Wall-Mount Steel Enclosure 60 X 36 X 16	**F**	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 60 X 36 X 16
7	NEMA 4 Single-Door Wall-Mount Steel Enclosure 72 X 36 X 12	**G**	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 72 X 36 X 12

ITAS 06 3 3(1P) 5 1 3 3 1 1 5 **Typical Model Number**

IntelliTrace ITAS/ITLS-EXT

Multiloop Heat Tracing Control Panel – Line/Ambient Sensing 2-48 Circuits

Model	Product Description
ITLS-EXT or ITAS-EXT	ITLS/ITAS-EXT series Intelligent Line/Ambient Sensing Heat Trace Extension Panel. Designed for Industrial applications in Non-Hazardous Areas. Intended To Be Used with ITLS/ITAS Heat Trace Line/Ambient Sensing Panel to increase circuit service. ITLS-EXT series offers the following standard features: NEMA 4 enclosure, PID SCR Power Controller Rated at 40A Per Circuit at 104°F (40oC) Ambient, Two to Forty-Eight Circuits, Common Alarm Output, Hand/Off/Auto Operation, Current Monitoring, 30 mA Ground Fault Equipment protection, ModBus RTU/RS485 or TCP/Ethernet Communications, UL & cUL Third Party Compliance. Options Include: NEMA 4XSS Enclosure, Copper Ground Bar (Standard is Aluminum), Remote Monitoring Capability, Thermostat Controlled Enclosure Heater, Heater Power and RTD Terminal Blocks, Wireless Ethernet Communications, CE Third Party Compliance.

Code — Circuits

02	2 Circuits	**24**	24 Circuits
04	4 Circuits	**30**	30 Circuits
06	6 Circuits	**36**	36 Circuits
12	12 Circuits	**42**	42 Circuits
18	18 Circuits	**48**	48 Circuits

Code — Line Voltage — Cable Voltage

1	208/120 VAC, 3 Phase 4 Wire	120 V- 1 Pole or 208 V - 2 Pole
2	240/120 VAC, Single Phase 3 Wire	120 V- 1 Pole or 240 V - 2 Pole
3	480/277 VAC, 3 Phase 4 Wire	277 V- 1 Pole or 480 V - 2 Pole

Code — Cable Load Circuit Breaker Rating (Multiply the Number of Circuits by the Circuit Breaker Price)

0(*)	None	**3(*)**	30A Thermal Magnetic	**Select Breaker Amperage and**
1(*)	15A Thermal Magnetic	**4(*)**	40A Thermal Magnetic	***1P/2P to Select Breaker Voltage**
2(*)	20A Thermal Magnetic	**5(*)**	50A Thermal Magnetic	**1(1P)=15A, 120V Breakers**

Code — Main Disconnect — Typical Voltage

0	None	None	**6**	125A Thermal Magnetic	277/480V 3P
1	30A Thermal Magnetic	277/480V 3P	**7**	150A Thermal Magnetic	120/208V 3P
2	50A Thermal Magnetic	120/208V 3P, 120/240V 1P, 277/480V 3P	**8**	175A Thermal Magnetic	120/240V 1P, 277/480V 3P
3	70A Thermal Magnetic	277/480V 3P	**9**	225A Thermal Magnetic	120/208V 3P, 120/240V 1P, 277/480V 3P
4	80A Thermal Magnetic	120/240V 1P	**X**	Other (If Main Disconnect is needed ontact Factory for Assistance)	
5	100A Thermal Magnetic	120/208V 3P, 120/240V 1P			

Code

0	No Enclosure Heater
1	Thermostat Controlled Enclosure Heater (Anti-Condensation Heater)
2	Thermostat Controlled Enclosure Heater (Needed for 0˚F, -18˚C Minimum Ambient Temperature)
3	Thermostat Controlled Enclosure Heater (Needed for -40˚F/˚C Minimum Ambient Temperature)

Code

0	None
1	HMI Sunshield (Req'd. if Panel is to be outdoors)
2	Panel Weathershield
3	Heater Power and RTD Terminal Blocks
4	Z-purge system
5	Panel Light (on separate breaker)
6	Powered Receptacle (on separate breaker)
7	Copper Ground Bar
A	Loss of Power Relay
B	Floor Stands for 12" Deep Panel
C	Floor Stands for 16" Deep Panel
X	Other (If multiple options needed contact factory)

Code — Number of 100 Ohm RTD Sensor Inputs (must be multiple of 6, up to 48 inputs, MAXIMUM 3 RTD's per heater circuit)

1	6 (Use this option if Ambient Sensing panel is desired)	**6**	36
2	12	**7**	42
3	18	**8**	48
4	24	**9**	Other (Call Factory for Assitance)
5	30		

Code — Communications

1	Standard: ModBus RTU/RS485 or Modbus TCP/Ethernet
2	ModBus TCP/Wireless
9	Other

Code — Temperature Sensing Solutions

1	Standard Wired Sensing
2	Wireless Sensing
3	Dry Contact Closure for Ambient Sensing Thermostat

Code — Enclosure (size determined by table 1)

1	NEMA 4 Single-Door Wall-Mount Steel Enclosure 24 X 24 X 12	**A**	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 24 X 24 X 12
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3	NEMA 4 Single-Door Wall-Mount Steel Enclosure 42 X 36 X 12	**C**	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 42 X 36 X 12
5	NEMA 4 Single-Door Wall-Mount Steel Enclosure 60 X 36 X 12	**E**	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 60 X 36 X 12
6	NEMA 4 Single-Door Wall-Mount Steel Enclosure 60 X 36 X 16	**F**	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 60 X 36 X 16
7	NEMA 4 Single-Door Wall-Mount Steel Enclosure 72 X 36 X 12	**G**	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 72 X 36 X 12

ITAS 06 3 3(1P) 5 1 3 3 1 1 5 — Typical Model Number

IntelliTrace

ITAS/ITLS
ITAS/ITLS-EXT

Multiloop Heat Tracing Control Panel – Line/Ambient Sensing

Spare / Replacement Parts List:

Part Number	Item Description	Price, Each
N/A	SSR/GFI Power Control Assy, with Heat Sink	Consult Factory
0135-02273	Control Module Board Assembly	$717.26
0135-02262	RTD Sensor Input Board Assembly	$795.92
0135-02263	Digital Distribution Comm Board Assembly (-EXT panels only)	$386.06
0002-60054	SSR, 40 Amp rated	$165.60
0029-00640	SSR Thermstrate Material	$11.42
0025-05312	Common Alarm Relay	$33.09
0025-05309	Common Alarm Relay (CID2 Panels Only)	$53.63
0081-10063	Power Supply 5VDC 6A 30W DIN Rail Mount	$243.23
0081-10047	Power Supply 24VDC 2.5A 60W DIN Rail Mount	$610.65
0135-30716	IT-10" Display	$3,000.00
0135-30710	IT-7" Display	$2,200.00
0017-43857	15A 1P Circuit Breaker (120V or 277V)	$35.38
0017-43858	20A 1P Circuit Breaker (120V or 277V)	$35.38
0017-43859	30A 1P Circuit Breaker (120V or 277V)	$35.38
0017-43860	40A 1P Circuit Breaker (120V)	$35.38
0017-43861	50A 1P Circuit Breaker (120V)	$35.38
0017-43864	15A 2P Thermal Mag Circuit Breaker (208/240V or 480V)	$65.34
0017-43865	20A 2P Thermal Mag Circuit Breaker (208/240V or 480V)	$65.34
0017-43866	30A 2P Thermal Mag Circuit Breaker (208/240V or 480V)	$65.34
0017-43867	40A 2P Thermal Mag Circuit Breaker (208/240V)	$65.34
0017-43868	50A 2P Thermal Mag Circuit Breaker (208/240V)	$65.34
0023-15097-0001	6" (15 cm) Ribbon Cable with Connectors	$237.02
0023-15097-0002	72" (180 cm) Ribbon Cable with Connectors	$268.07

Accessories

Part Number	Item Description	Price, Each
N/A	Power Transformers	Consult Factory
PCN 317315	RTD, Aluminum, NEMA 4	$231.84
PCN 317340	RTD, Expl. Resist., Cast Iron/Alum., NEMA 4	$299.12
PCN 308144	RTD Ext Wire, 3-wire, 16 ga, Cu, shielded, 50 FT	$183.20
PCN 308152	RTD Ext Wire, 3-wire, 16 ga, Cu, shielded, 200 FT	$449.19

CE Third Party Compliance

Base Panel	Model Number Instructions	Price, Each
ITLS/ITAS-02	Add -CEXX suffix to Model Number	$1,174.73
ITLS/ITAS-04	Add -CEXX suffix to Model Number	$1,469.70
ITLS/ITAS-06	Add -CEXX suffix to Model Number	$1,650.83
ITLS/ITAS-12	Add -CEXX suffix to Model Number	$2,057.58
ITLS/ITAS-18	Add -CEXX suffix to Model Number	$2,765.52
ITLS/ITAS-24	Add -CEXX suffix to Model Number	$3,412.40
ITLS/ITAS-30	Add -CEXX suffix to Model Number	$3,740.49
ITLS/ITAS-36	Add -CEXX suffix to Model Number	$4,046.85
ITLS/ITAS-42	Add -CEXX suffix to Model Number	$4,407.03
ITLS/ITAS-48	Add -CEXX suffix to Model Number	$5,118.08

Model Number Note:

-XXXX Indicates that the design has varied from the order table parameters. This could include one or more of the following non-standard considerations: Special Software or Configuration, Private Branding, Remote Monitoring/Touch-Screen Computer, Third Party Approval, Floor Stands, Protective Covering, Heater Power and RTD Terminal Blocks, Cooper Ground Bar, Mounting Options, Special Materials (316 S) or coatings, Additional Venting or Cooling, Special Indication or Alarms.

Table 1 Enclosure Size Selection

Panel Size	Single RTD per Circuit	Two RTD's per Circuit	Three RTD's per Circuit
2 Loop 1P	24x24x12	24x24x12	Consult factory
2 Loop 2P	24x24x12	24x24x12	Consult factory
4 Loop 1P	24x24x12	30x30x12	Consult factory
4 Loop 2P	30x30x12	30x30x12	Consult factory
6 Loop 1P	24x24x12	30x30x12	Consult factory
6 Loop 2P	30x30x12	30x30x12	Consult factory
12 Loop 1P	30x30x12	42x36x12	Consult factory
12 Loop 2P	42x36x12	42x36x12	Consult factory
18 Loop 1P	42x36x12	60x36x12	Consult factory
18 Loop 2P	60x36x12	60x36x12	Consult factory
24 Loop 1P	42x36x12	60x36x12	Consult factory
24 Loop 2P	60x36x16	60x36x16	Consult factory
30 Loop 1P	60x36x12	60x36x12	Consult factory
30 Loop 2P	60x36x16	60x36x16	Consult factory
36 Loop 1P	60x36x12	60x36x12	Consult factory
36 Loop 2P	60x36x16	Consult factory	Consult factory
42 Loop 1P	60x36x16	Consult factory	Consult factory
42 Loop 2P	Consult factory	Consult factory	Consult factory
48 Loop 1P	60x36x16	Consult factory	Consult factory
48 Loop 2P	Consult factory	Consult factory	Consult factory

Note: Table 1 is a general guideline for Enclosure Size Selection. Adding certain options could cause enclosure size to differ. If RTD and Power terminals are selected as an option increase panel size by one size over what is published on this table. If Panel dimensions are critical Consult Factory for exact selection.

Technical Notes:

1. Refer to PK497 for Installation and Operation details
2. Our standard SCCR is 5 kA. Consult sales if a different SCCR is needed.
3. For CID2 Panels 120-264V customer supplied instrument power supply
4. See ITLS_AS to Increase Circuits up to 8 loops for 2-4 Loop Panels and up to 72 Loops for 6-48 Loop Panels .
5. 6-48 Loop Extension Panels can not be added to 2-4 Loop Panels but 2-4 loop extension paels can be added to 6-8 Loop Panels (up to 72 loops)

Wireless Guidelines - Please see ITLS_AS Installation & Instruction Maunual for full details:

1. Chromalox employs WirelessHART as its standard wireless protocol.
2. Wireless Transmitters require an RTD. Choose the appropriate connection/design for your sensing needs.