

Heating Cable

intelliTRACE®

Ambient Sensing

ITAS Base Panel

ITAS-EXT Extender Panel

Line Sensing

ITLS Base Panel

ITLS-EXT Extender Panel

Heat Tracing Control Panel
for Ordinary Areas



- 10" VGA Touch Screen HMI
- 40 Amps/Loop @ 100 – 480 VAC
- 6 Loops to 72 Loops
- NEMA 4 or NEMA 4X Enclosure
- SCR Control
- Integral Circuit Panel with Circuit Breakers
- Optional Main Disconnect
- Soft Start Feature
- Full Communications and Enhanced Data Logging
- Full Alarm and Monitoring Capabilities on GFEP, Temperature, Sensor, Current Load & Communications
- Optional Customizable I/O Mapping
- Optional Enclosure Heater
- UL, cUL
- Optional CE

The 10" 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 6 loops at time as well as alarm status for all other loops.

The Quick Launch buttons take you to any other 6-loop real time display screen as well as the Setup, Fault, Log or Communication Screen. All set point, alarm, security, time, loop identification, I/O 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 micro-processor 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 6 - 36 loops and may be increased up to 72 loops with the Extension Panels. Each circuit has a 40 Amperage capacity and accepts 100 to 480 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) 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 6 loops at a time as well as the alarm status for all other loops.

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 I/O (Sensor & Output) Mapping** function, remote monitoring and wireless communications.

HEAT TRACING PRODUCTS

Heating Cable

intelliTRACE®

Ambient Sensing

ITAS Base Panel

ITAS-EXT Extender Panel

Line Sensing

ITLS Base Panel

ITLS-EXT Extender Panel

Heat Tracing Control Panel for Ordinary Areas

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 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 down time periods, typically during the summer months, it advisable to intermittently exercise the system circuits. This exercising of the loops 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.

I/O (Sensor & Output) Mapping**

When factory enabled, the ITLS & ITLSC1D2 Models provide the owner with customizable I/O 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.

There are two types of I/O Mapping: Sensor Mapping and Output Mapping. Sensor Mapping is the assignment of one or more Sensor Inputs to one or more output circuits. Output Mapping is the assignment of one or more Power Outputs to one or more output circuits.

More on Sensor Mapping

Ambient or Line Sensing - Single Sensor:

A single sensor (RTD) may be mapped (or linked) to multiple Output Circuits. This allows several circuits to be controlled by a 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.

More on Output Mapping

Output Power Sensing

A single Output demand value may be mapped to multiple Circuits. This allows several circuits to be controlled by a single Output demand value.

Minimum, Maximum, Averaging

Several Output demand values may be mapped to a single output circuit. This allows a circuit to be controlled by the Minimum or the Maximum or the Average Output demand value of all of the Outputs that are mapped to that single Circuit.

Multiple Output Mapping

A single output demand value may be used independently or combined with other output demand values to control more than one circuit.

** Available only on ITLS & ITLS-EXT

Touch Screen Computer:

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

Optional Features:

- NEMA 4X 304 SS Enclosure
- Fully Customizable I/O (Sensor and Output) Mapping**
- Enclosure Heater

Heating Cable



Ambient Sensing

ITAS Base Panel

ITAS-EXT Extender Panel

Line Sensing

ITLS Base Panel

ITLS-EXT Extender Panel

Heat Tracing Control Panel for Ordinary Areas

Technical Specifications

Panel Specifications

Supply Voltage:	100 - 480 VAC, 3 phase
Operating Environment:	-40 to +104°F (-40 to +40°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 – 20mA to 150 mA, Hi/Lo Current – 0.1 to 50A or off
Input:	100Ω 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 & ATEX Certification
Area Classifications:	Ordinary Areas
Temperature Rating:	T4A

HEAT TRACING
PRODUCTS

Heating Cable



Ambient Sensing

ITAS Base Panel

Heat Tracing Control Panel for Ordinary Areas

Technical Notes:

1. 120-264V customer supplied instrument power supply
2. Our standard SCCR is 5 KA. Consult sales if a different SCCR is needed.
3. Do Not Exceed 80% of Panelboard Rating
4. See ITASC1D2-EXT Extension Panel Order Table to increase total circuits

Ordering Information

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

Model Product Description

ITAS ITAS series Intelligent Ambient Sensing Heat Trace Panel. Designed for Industrial applications in Non-Hazardous Areas. ITAS series offers the following standard features: NEMA 4 enclosure, Industrial 10" Digital CE Computer Touchscreen Operator Interface, PID SCR Power Controller Rated at 40A Per Circuit at 104°F (40°C) Ambient, Six to Thirty-Six Circuits (Expandable to Seventy-Two Circuits*), Common Alarm Output, Hand/Off/Auto Operation, Current Monitoring, 30 mA Ground Fault Equipment Protection, ModBus RTU/RS485, Ethernet Communications, UL & cUL Third Party Compliance. Options Include: NEMA 4XSS Enclosure, Thermostat Controlled Enclosure Heater, Remote Monitoring Capability, Wireless Ethernet Communications, CE Third Party Compliance.

Code	Circuits	NEMA 4 Enclosure Size		Panelboard Size	Panelboard Rating
		1 Pole	2 Pole		
06	6 Circuits	24"H x 24"W x 12"D	24"H x 24"W x 12"D	N/A	N/A
12	12 Circuits	36"H x 30"W x 12"D	-----	18 position	up to 100 A
12	12 Circuits	48"H x 36"W x 12"D	48"H x 36"W x 12"D	30 position	up to 400 A
18	18 Circuits	48"H x 36"W x 12"D	-----	30 position	up to 400 A
18	18 Circuits	-----	60"H x 36"W x 12"D	42 position	up to 600 A
24	24 Circuits	48"H x 36"W x 12"D	-----	30 position	up to 400 A
24	24 Circuits	-----	62"H x 60"W x 12"D	30 position (X2)	up to 400 A
30	30 Circuits	60"H x 36"W x 12"D	-----	30 position	up to 600 A
30	30 Circuits	-----	62"H x 60"W x 12"D	42 position (X2)	up to 600 A
36	36 Circuits	60"H x 36"W x 12"D	-----	42 position	up to 600 A
36	36 Circuits	-----	62"H x 60"W x 12"D	42 position (X2)	up to 600 A

Code	Line Voltage	Cable Voltage	Circuit Breaker Rating - Type (1/Loop)
1	208/120 VAC, 3 Phase 4 Wire	120 VAC	120 V-1 Pole
2	208/120 VAC, 3 Phase 4 Wire	208 VAC	208/240V-2 Pole
3	240/120 VAC, Single Phase 3 Wire	240 VAC	208/240V-2 Pole
4	480/277 VAC, 3 Phase 4 Wire	277 VAC	277V-1 Pole
5	480/277 VAC, 3 Phase 4 Wire	480 VAC	480V-2 Pole
6	240/120 VAC, Single Phase 3 Wire	120 VAC	120 V-1 Pole

Code	Cable Load	Circuit Breaker Rating
1	15A	Thermal Magnetic
2	20A	Thermal Magnetic
3	30A	Thermal Magnetic
4	40A	Thermal Magnetic
5	50A	Thermal Magnetic

Code	Main Disconnect / Circuit Breaker
0	None
1	100A Disconnect
2	150A Disconnect
3	250A Disconnect
4	400A Disconnect
5	600A Disconnect
A	100A Thermal Magnetic
B	150A Thermal Magnetic
C	225A Thermal Magnetic
D	250A Thermal Magnetic
E	400A Thermal Magnetic
F	600A Thermal Magnetic

Code	Enclosure
1	NEMA 4 Single-Door Wall-Mount Steel Enclosure
2	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 24"H x 24"W x 12"D
3	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 36"H x 30"W x 12"D
4	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 48"H x 36"W x 12"D
5	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 60"H x 36"W x 12"D
6	NEMA 4X 304 Stainless Steel Floor-Mount Enclosure 62"H x 60"W x 12"D

Code	Enclosure Heater
0	No Enclosure Heater
1	Thermostat Controlled Enclosure Heater (Anti-Condensation Heater)
2	Thermostat Controlled Enclosure Heater (to 0°F Ambient)
3	Thermostat Controlled Enclosure Heater (to -40°F Ambient)

Code	Input Options
0	Standard Sensor Input
9	Other

Code	Communications
0	Standard: Modbus RTU/ RS485 or Modbus TCP/Ethernet
1	Modbus TCP/Wireless
9	Other

Code	Monitoring
0	Standard Monitoring (Local HMI Only)
1	Remote Desktop (Wired/Wireless Ethernet Only)
9	Other

ITAS- 24 1 3 3- 1 1 1 0 0 **Typical Model Number**

Heating Cable



Ambient Sensing
ITAS-EXT Extender Panel
 Heat Tracing Control Panel
 for Ordinary Areas

Ordering Information

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

Model Product Description

ITAS-EXT ITAS-EXT series Intelligent Ambient Sensing Heat Trace Extension Panel. Designed for Industrial applications in Non-Hazardous Areas. Intended to be used with ITAS Heat Trace Ambient Sensing Panel to increase circuit service. ITAS series offers the following standard features: NEMA 4 enclosure, PID SCR Power Controller Rated at 40A Per Circuit at 104°F (40°C) Ambient, Six to Thirty-Six Circuits, Common Alarm Output, Hand/Off/Auto Operation, Current Monitoring, 30 mA Ground Fault Equipment protection, ModBus RTU/RS485, Ethernet Communications, UL & cUL Third Party Compliance. Options Include: NEMA 4XSS Enclosure, Remote Monitoring Capability, Thermostat Controlled Enclosure Heater, CE Third Party Compliance.

NEMA 4 Enclosure Size					
Code	Circuits	1 Pole	2 Pole	Panelboard Size	Panelboard Rating
06	6 Circuits	24"H x 24"W x 12"D	24"H x 24"W x 12"D	N/A	N/A
12	12 Circuits	36"H x 30"W x 12"D	-----	18 position	up to 100 A
12	12 Circuits	48"H x 36"W x 12"D	48"H x 36"W x 12"D	30 position	up to 400 A
18	18 Circuits	48"H x 36"W x 12"D	-----	30 position	up to 400 A
18	18 Circuits	-----	60"H x 36"W x 12"D	42 position	up to 600 A
24	24 Circuits	48"H x 36"W x 12"D	-----	30 position	up to 400 A
24	24 Circuits	-----	62"H x 60"W x 12"D	30 position (X2)	up to 400 A
30	30 Circuits	60"H x 36"W x 12"D	-----	30 position	up to 600 A
30	30 Circuits	-----	62"H x 60"W x 12"D	42 position (X2)	up to 600 A
36	36 Circuits	60"H x 36"W x 12"D	-----	42 position	up to 600 A
36	36 Circuits	-----	62"H x 60"W x 12"D	42 position (X2)	up to 600 A

Code	Line Voltage	Cable Voltage	Circuit Breaker Rating - Type (1/Loop)
1	208/120 VAC, 3 Phase 4 Wire	120 VAC	120 V-1 Pole
2	208/120 VAC, 3 Phase 4 Wire	208 VAC	208/240V-2 Pole
3	240/120 VAC, Single Phase 3 Wire	240 VAC	208/240V-2 Pole
4	480/277 VAC, 3 Phase 4 Wire	277 VAC	277V-1 Pole
5	480/277 VAC, 3 Phase 4 Wire	480 VAC	480V-2 Pole
6	240/120 VAC, Single Phase 3 Wire	120 VAC	120 V-1 Pole

Code	Cable Load	Circuit Breaker Rating
1	15A	Thermal Magnetic
2	20A	Thermal Magnetic
3	30A	Thermal Magnetic
4	40A	Thermal Magnetic
5	50A	Thermal Magnetic

Code	Main Disconnect / Circuit Breaker
0	None
1	100A Disconnect
2	150A Disconnect
3	250A Disconnect
4	400A Disconnect
5	600A Disconnect
A	100A Thermal Magnetic
B	150A Thermal Magnetic
C	225A Thermal Magnetic
D	250A Thermal Magnetic
E	400A Thermal Magnetic
F	600A Thermal Magnetic

Code	Enclosure
1	NEMA 4 Single-Door Wall-Mount Steel Enclosure
2	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 24"H x 24"W x 12"D
3	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 36"H x 30"W x 12"D
4	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 48"H x 36"W x 12"D
5	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 60"H x 36"W x 12"D
6	NEMA 4X 304 Stainless Steel Floor-Mount Enclosure 62"H x 60"W x 12"D

Code	Enclosure Heater
0	No Enclosure Heater
1	Thermostat Controlled Enclosure Heater (Anti-Condensation Heater)
2	Thermostat Controlled Enclosure Heater (to 0°F Ambient)
3	Thermostat Controlled Enclosure Heater (to -40°F Ambient)

ITAS-EXT- 24 1 3 1- 1 0 Typical Model Number

*Designed to be paired with an ITAS Panel

HEAT TRACING PRODUCTS

Heating Cable

intelliTRACE®

Ambient Sensing

ITAS Base Panel

ITAS-EXT Extender Panel

Heat Tracing Control Panel

for Ordinary Areas

Spare/Replacement Parts for ITAS & ITAS-EXT

Part Number	Description
0135-02261	SSR/GFI Power Control
0135-02262	RTD Sensor Input Board Assembly
0135-02263	Digital Distribution Comm Board Assembly
0002-60054	SSR, 40 Amp rated
0029-00640	SSR Thermstrate Material
0025-05227	Common Alarm Relay
0081-10063	Power Supply 5VDC 6A 30W DIN Rail Mount
0081-10047	Power Supply 24VDC 2.5A 60W DIN Rail Mount
Contact Sales	ITAS HMI - 10" (25cm) diagonal, programmed

Accessories for ITAS & ITAS-EXT

Part Number	Description
Contact Sales	Power Transformers
317315	RTD Aluminum, NEMA 4
317340	RTD, Expl. Resist., Cast Iron/Alum., NEMA 4
308056	RTD, Snap Lid, Alum., Ambient Sensing
308144	RTD Ext Wire, 3-wire, 16 ga, Cu, shielded, 50 FT
317342	RTD Ext Wire, 3-wire, 16 ga, Cu, shielded, 200 FT
0076-12009	Floor Stand Kit, 12" (30 cm) Deep, Steel
0076-12050	Floor Stand Kit, 12" (30 cm) Deep, 304 SS
Contact Sales	Floor Stand Kit, 12" (30 cm) Deep, 316 SS

CE Third Party Compliance for ITAS & ITAS-EXT

Base Panel	Model Number Instructions
ITAS-06	Add -CEXX suffix to Model No.
ITAS-12	Add -CEXX suffix to Model No.
ITAS-18	Add -CEXX suffix to Model No.
ITAS-24	Add -CEXX suffix to Model No.
ITAS-30	Add -CEXX suffix to Model No.
ITAS-36	Add -CEXX suffix to Model No.
ITAS-EXT-06	Add -CEXX suffix to Model No.
ITAS-EXT-12	Add -CEXX suffix to Model No.
ITAS-EXT-18	Add -CEXX suffix to Model No.
ITAS-EXT-24	Add -CEXX suffix to Model No.
ITAS-EXT-30	Add -CEXX suffix to Model No.
ITAS-EXT-36	Add -CEXX suffix to Model No.

ATEX Certification - Consult Sales for all models

Heating Cable



Ordering Information

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

Line Sensing

ITLS Base Panel Heat Tracing Control Panel for Ordinary Areas

Model Product Description

ITLS ITLS series Intelligent Line Sensing Heat Trace Panel. Designed for Industrial applications in Non-Hazardous Areas. ITLS series offers the following standard features: NEMA 4 enclosure, Industrial 10" Digital CE Computer Touchscreen Operator Interface, PID SCR Power Controller Rated at 40A Per Circuit at 104°F (40°C) Ambient, Six to Thirty-Six Circuits (Expandable to Seventy-Two Circuits*), Common Alarm Output, Hand/Off/Auto Operation, 120 Volt Instrument Power Included, Current Monitoring, 30 mA Ground Fault Equipment Protection, ModBus RTU/RS485, Ethernet Communications, UL & cUL Third Party Compliance. Options Include: NEMA 4XSS Enclosure, Remote Monitoring Capability, Thermostat Controlled Enclosure Heater, Customizable I/O Mapping, Wireless Ethernet Communications, CE Third Party Compliance.

NEMA 4 Enclosure Size					
Code	Circuits	1 Pole	2 Pole	Panelboard Size	Panelboard Rating
06	6 Circuits	24"H x 24"W x 12"D	24"H x 24"W x 12"D	N/A	N/A
12	12 Circuits	36"H x 30"W x 12"D	-----	18 position	up to 100 A
12	12 Circuits	48"H x 36"W x 12"D	48"H x 36"W x 12"D	30 position	up to 400 A
18	18 Circuits	48"H x 36"W x 12"D	-----	30 position	up to 400 A
18	18 Circuits	-----	60"H x 36"W x 12"D	42 position	up to 600 A
24	24 Circuits	48"H x 36"W x 12"D	-----	30 position	up to 400 A
24	24 Circuits	-----	62"H x 60"W x 12"D	30 position (X2)	up to 400 A
30	30 Circuits	60"H x 36"W x 12"D	-----	30 position	up to 600 A
30	30 Circuits	-----	62"H x 60"W x 12"D	42 position (X2)	up to 600 A
36	36 Circuits	60"H x 36"W x 12"D	-----	42 position	up to 600 A
36	36 Circuits	-----	62"H x 60"W x 12"D	42 position (X2)	up to 600 A

Code	Line Voltage	Cable Voltage	Circuit Breaker Rating - Type (1/Loop)
1	208/120 VAC, 3 Phase 4 Wire	120 VAC	120 V-1 Pole
2	208/120 VAC, 3 Phase 4 Wire	208 VAC	208/240V-2 Pole
3	240/120 VAC, Single Phase 3 Wire	240 VAC	208/240V-2 Pole
4	480/277 VAC, 3 Phase 4 Wire	277 VAC	277V-1 Pole
5	480/277 VAC, 3 Phase 4 Wire	480 VAC	480V-2 Pole
6	240/120 VAC, Single Phase 3 Wire	120 VAC	120 V-1 Pole

Code	Cable Load	Circuit Breaker Rating
1	15A Thermal Magnetic	4 40A Thermal Magnetic
2	20A Thermal Magnetic	5 50A Thermal Magnetic
3	30A Thermal Magnetic	

Code	Main Disconnect / Circuit Breaker
0	None
1	100A Disconnect
2	150A Disconnect
3	250A Disconnect
4	400A Disconnect
5	600A Disconnect
A	100A Thermal Magnetic
B	150A Thermal Magnetic
C	225A Thermal Magnetic
D	250A Thermal Magnetic
E	400A Thermal Magnetic
F	600A Thermal Magnetic

Code	Enclosure
1	NEMA 4 Single-Door Wall-Mount Steel Enclosure
2	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 24"H x 24"W x 12"D
3	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 36"H x 30"W x 12"D
4	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 48"H x 36"W x 12"D
5	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 60"H x 36"W x 12"D
6	NEMA 4X 304 Stainless Steel Floor-Mount Enclosure 62"H x 60"W x 12"D

Code	Enclosure Heater
0	No Enclosure Heater
1	Thermostat Controlled Enclosure Heater (Anti-Condensation Heater)
2	Thermostat Controlled Enclosure Heater (to -0°F Ambient)
3	Thermostat Controlled Enclosure Heater (to -40°F Ambient)

Code**	Inputs/Circuit	I/O Mapping
0	1	No I/O Mapping
1	1	Full I/O Mapping Use Enclosure sizes from above
2	2	Full I/O Mapping See ITLS I/O mapping: Enclosure size on accessory page
3	3	Full I/O Mapping
9	X	Special Configuration

Code	Communications
0	Standard Modbus RTU/ RS485 or Modbus TCP/Ethernet
1	Modbus TCP/Wireless
9	Other

Code	Monitoring
0	Standard Monitoring
1	Remote Desktop (Wired/wireless Ethernet only)
9	Other

ITLS - 24 1 3 3- 1 1 1 0 0 **Typical Model Number**

*42 - 72 circuit service via ITLS-EXT Extension Panel. See ITLS-EXT Heat Tracing Extension Panel - Line Sensing Order Table

MULTI LOOP CONTROL PANEL



Heating Cable



Line Sensing
ITLS-EXT Extender Panel
 Heat Tracing Control Panel
 for Ordinary Areas

Ordering Information

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

Model	Product Description					
ITLS-EXT	ITLS-EXT series Intelligent Line Sensing Heat Trace Extension Panel. Designed for Industrial applications in Non-Hazardous Areas. Intended to be used with ITLS Heat Trace Line 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 (40°C) Ambient. Six to Thirty-Six Circuits, Common Alarm Output, Hand/Off/Auto Operation, Current Monitoring, 30 mA Ground Fault Equipment protection, ModBus RTU/RS485, Ethernet Communications, UL & cUL Third Party Compliance. Options Include: NEMA 4XSS Enclosure, Thermostat Controlled Enclosure Heater, Customizable I/O Mapping, Remote Monitoring Capability, CE Third Party Compliance.					
NEMA 4 Enclosure Size						
Code	Circuits	1 Pole	2 Pole	Panelboard Size	Panelboard Rating	
06	6 Circuits	24"H x 24"W x 12"D	24"H x 24"W x 12"D	N/A	N/A	
12	12 Circuits	36"H x 30"W x 12"D	-----	18 position	up to 100 A	
12	12 Circuits	48"H x 36"W x 12"D	48"H x 36"W x 12"D	30 position	up to 400 A	
18	18 Circuits	48"H x 36"W x 12"D	-----	30 position	up to 400 A	
18	18 Circuits	-----	60"H x 36"W x 12"D	42 position	up to 600 A	
24	24 Circuits	48"H x 36"W x 12"D	-----	30 position	up to 400 A	
24	24 Circuits	-----	62"H x 60"W x 12"D	30 position (X2)	up to 400 A	
30	30 Circuits	60"H x 36"W x 12"D	-----	30 position	up to 600 A	
30	30 Circuits	-----	62"H x 60"W x 12"D	42 position (X2)	up to 600 A	
36	36 Circuits	60"H x 36"W x 12"D	-----	42 position	up to 600 A	
36	36 Circuits	-----	62"H x 60"W x 12"D	42 position (X2)	up to 600 A	
Code	Line Voltage	Cable Voltage		Circuit Breaker Rating - Type (1/Loop)		
1	208/120 VAC, 3 Phase 4 Wire	120 VAC		120 V-1 Pole		
2	208/120 VAC, 3 Phase 4 Wire	208 VAC		208/240V-2 Pole		
3	240/120 VAC, Single Phase 3 Wire	240 VAC		208/240V-2 Pole		
4	480/277 VAC, 3 Phase 4 Wire	277 VAC		277V-1 Pole		
5	480/277 VAC, 3 Phase 4 Wire	480 VAC		480V-2 Pole		
6	240/120 VAC, Single Phase 3 Wire	120 VAC		120 V-1 Pole		
Code	Cable Load		Circuit Breaker Rating			
1	15A	Thermal	Magnetic			
2	20A	Thermal	Magnetic			
3	30A	Thermal	Magnetic			
4	40A	Thermal	Magnetic			
5	50A	Thermal	Magnetic			
Code	Main Disconnect / Circuit Breaker					
0	None		A 100A Thermal Magnetic			
1	100A Disconnect		B 150A Thermal Magnetic			
2	150A Disconnect		C 225A Thermal Magnetic			
3	250A Disconnect		D 250A Thermal Magnetic			
4	400A Disconnect		E 400A Thermal Magnetic			
5	600A Disconnect		F 600A Thermal Magnetic			
Code	Enclosure					
1	NEMA 4 Single-Door Wall-Mount Steel Enclosure					
2	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 24"H x 24"W x 12"D					
3	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 36"H x 30"W x 12"D					
4	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 48"H x 36"W x 12"D					
5	NEMA 4X 304 Stainless Steel Wall-Mount Enclosure 60"H x 36"W x 12"D					
6	NEMA 4X 304 Stainless Steel Floor-Mount Enclosure 62"H x 60"W x 12"D					
Code	Enclosure Heater					
0	No Enclosure Heater					
1	Thermostat Controlled Enclosure Heater (Anti-Condensation Heater)					
2	Thermostat Controlled Enclosure Heater (to 0°F Ambient)					
3	Thermostat Controlled Enclosure Heater (to -40°F Ambient)					
Code**	Inputs/Circuit	I/O Mapping				
0	1	No I/O Mapping				
1	1	Full I/O Mapping				
2	2	Full I/O Mapping				
3	3	Full I/O Mapping				
9	X	Special Configuration				

*Designed to be paired with an ITLS Panel

Heating Cable



Line Sensing
ITLS Base Panel
ITLS-EXT Extender Panel
 Heat Tracing Control Panel
 for Ordinary Areas

CE Third Party Compliance for ITLS & ITLS-EXT

Base Panel	Model Number Instructions
ITLSC1D2-06	Add -CEXX suffix to Model No.
ITLSC1D2-12	Add -CEXX suffix to Model No.
ITLSC1D2-18	Add -CEXX suffix to Model No.
ITLSC1D2-24	Add -CEXX suffix to Model No.
ITLSC1D2-30	Add -CEXX suffix to Model No.
ITLSC1D2-36	Add -CEXX suffix to Model No.
ITLSC1D2-EXT-06	Add -CEXX suffix to Model No.
ITLSC1D2-EXT-12	Add -CEXX suffix to Model No.
ITLSC1D2-EXT-18	Add -CEXX suffix to Model No.
ITLSC1D2-EXT-24	Add -CEXX suffix to Model No.
ITLSC1D2-EXT-30	Add -CEXX suffix to Model No.
ITLSC1D2-EXT-36	Add -CEXX suffix to Model No.

ATEX Certification - Consult Sales for all models

Spare/Replacement Parts for ITLS & ITLS-EXT

Part Number	Description
0135-02261	SSR/GFI Power Control
0135-02262	RTD Sensor Input Board Assembly
0135-02263	Digital Distribution Comm Board Assembly
0002-60054	SSR, 40 Amp rated
0029-00640	SSR Thermstrate Material
0025-05227	Common Alarm Relay
0081-10063	Power Supply 5VDC 6A 30W DIN Rail Mount
0081-10047	Power Supply 24VDC 2.5A 60W DIN Rail Mount
Contact Sales	ITLS HMI - 10" (25cm) diagonal, programmed

Accessories for ITLS & ITLS-EXT

Part Number	Description
Contact Sales	Power Transformers
317315	RTD Aluminum, NEMA 4
317340	RTD, Expl. Resist., Cast Iron/Alum., NEMA 4
308056	RTD, Snap Lid, Alum., Ambient Sensing
308144	RTD Ext Wire, 3-wire, 16 ga, Cu, shielded, 50 FT
317342	RTD Ext Wire, 3-wire, 16 ga, Cu, shielded, 200 FT
0076-12009	Floor Stand Kit, 12" (30 cm) Deep, Steel
0076-12050	Floor Stand Kit, 12" (30 cm) Deep, 304 SS
Contact Sales	Floor Stand Kit, 12" (30 cm) Deep, 316 SS

ITLS & ITLS-EXT I/O Mapping: Enclosure Size

Circuits - Poles	Enclosure Size - H x W x D In (cm)	
	2 Inputs / Output	3 Inputs / Output
06 - 1	24 x 24 x 12	36 x 30 x 12
06 - 2	24 x 24 x 12	36 x 30 x 12
12 - 1	36 x 30 x 12	48 x 36 x 12
12 - 1	48 x 36 x 12	48 x 36 x 12
12 - 2	48 x 36 x 12	48 x 36 x 12
18 - 1	48 x 36 x 12	48 x 36 x 12
18 - 2	60 x 36 x 12	60 x 36 x 12
24 - 1	48 x 36 x 12	48 x 36 x 12
24 - 2	62 x 60 x 12	62 x 60 x 12
30 - 1	60 x 36 x 12	Consult Sales
30 - 2	62 x 60 x 12	Consult Sales
36 - 1	60 x 36 x 12	Consult Sales
36 - 2	62 x 60 x 12	Consult Sales

1. The MAXIMUM number of Inputs for any ITLS System, including Extension Panel, is 72.
2. When **Full I/O Mapping** is selected from the Order Table, any individual sensor or output may be mapped to more than one circuit. For Example: The average temperature of Sensors 1, 2 & 3 is used to control Circuit 1, while simultaneously the maximum temperature of Sensors 3, 4 & 5 is used to control Circuit 2.
3. The maximum amount of inputs for each panel design is as follows:

Total Number of Available Inputs per Panel Design for ITLS & ITLS-EXT

Number of Circuits	Inputs / Circuit Code from Above Order Table		
	1	2	3
06	06	12	18
12	12	24	36
18	18	36	54
24	24	48	72
30	30	60	Consult Sales
36	36	72	Consult Sales

MULTI LOOP CONTROL PANEL