iTrace
INTELLIGENT HEAT TRACE CONTROLS

Intelligent Heat Trace Control Panel

Providing the right heat trace control solution can be tricky. There are a full range of options to control your heat trace system from single thermostat to a fully integrated control system with ground fault detection, main and distribution breakers, preventive diagnostic, alarms, and communicate with your existing plant control system through Modbus or Allen-Bradley EtherNet/IP.

iTraceCP is high level integrate heat trace control package that is customized to your needs. Our controller continuously monitors and controls your HT circuits. Monitoring the electrical current usage as well as the temperature, iTraceCP will alarm you when your heat trace is not working. iTraceCP is also proactive. Our system will test your circuits on a daily basis notifying of any faults so preventive maintenance can be scheduled.

iTraceCP has several unique features. Power Limiting, which limits the inrush current, and Staggered Start, which stagger the power start-up of circuits. iTraceCP provides the all important NEC required ground fault circuit. iTraceCP can be designed to provide heating circuit up to 100A @ 600 VAC and up to 100- heat trace circuits in one package. iTraceCP can also communicate with your existing centralized control system via Modbus, Profibus or Allen Bradley Ethernet I/O or DH+ to provide a full range of information about the condition of your heat trace system.

What does it cost when your heat trace fails?

Operator Interface

iTraceCP provides an easy-to-use display mounted on the outside of your system. All of the temperature and current set points can be easily changed from the display. All of the alarm messages and system statuses are available on the display as well.

In the interest of safety and convenience, the display has been designed so one can operate the system without opening the panel door.

Features

The TraceCheck early warning system periodically checks your circuits and alerts you to potential problems with temperature, heater current and ground fault current, even on circuits that are not in use.

Your choice of local or remote interface offers you a level of flexibility you won't find any-where else.

A user-friendly display interface means you can easily monitor all variables, form on convenient location.

The Staggered Start feature reduces initial load on your system by staggering the power start-up of each circuit.

Maintains your heat trace system autonomously, 24 hours a day, 365 days a year.

Provides you with maximum performance and reliability.

Warns you of potential problems before they become critical.

Offers you the most flexible and cost-effective solution on the market today.

PowerLimit reduces the high inrush current associated with self-regulated cable, eliminates over-sized breakers and allow the user to set the maximum average heater current of each circuit.

Saves you money by alerting you to problems that could lead to unnecessary product losses and process shutdowns.

iTrace
INTELLIGENT HEAT TRACE CONTROLS

Performance Specifications

Temperature Input	
Range:	-50 degrees F to +500 degrees F
Accuracy:	+/- 2.5 degrees F
Repeatability:	+/- 1.5 degrees F
Sensor:	100 ohm Pt 3 wire RTD 2 RTD's for freeze protection systems (primary & backup) RTD for each circuit for the maintain systems

Heating Switching	
Number of Circuit:	10, 20, 30 or 40 (standard)
Switch Rating:	30 A @ 280 VAC standard
Current Measurement:	0.1 to 30A 3%+/- 0.2A
GF Measurement:	10 to 1000mA 5%+/-2mA

User Settable Option	
Heater Status:	Enable or Disable
Heater Name or Tag:	16 Characters Alphanumeric
Temperature Units:	Degrees F or Degrees C
Control Strategy:	On-Off or Proportional
Deadband:	0 to 90 Degree F

User Interface	
Display:	20 Character x 2 Line Display
Keypad:	9 Tactile Keys
Contrast:	Adjustable
Panel Indicators:	Power ON Current heater display on system & process alarms
NEMA Rating:	4 or 4X per request

Alarm Messages	
Temperature:	High Temperature Alarm Low Temperature Alarm
Current:	High Current Alarm Low Current Alarm High Current Trip
Ground Fault Current:	GF Current Alarm GF Current Trip
Hardware:	Self-Failure Switch Shorted RTD Open RTD Shorted

Ground Fault	
Max Trip Time:	24.5 msec

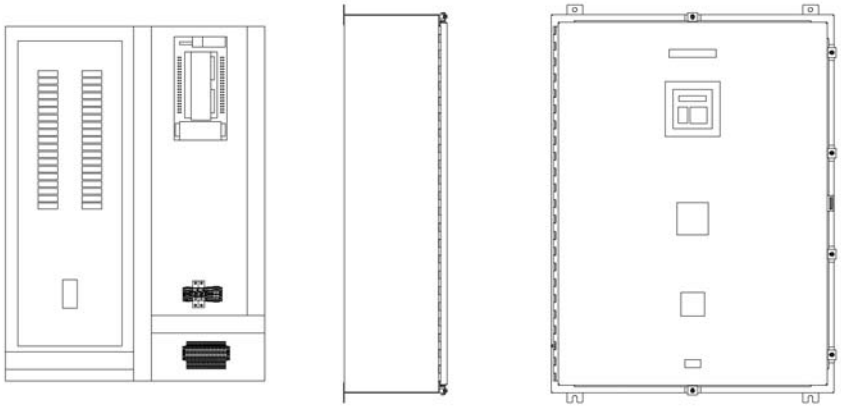
Current Input	
Range:	0.1A to 100A per
Accuracy:	3% +/- 0.2 A

Optional Communication	
Protocol:	Modbus RTU (standard) Allen Bradley Ethernet I/O

Alarms	
Alarm Output:	Programmable NO or NC One dry mech contract Mech - 120Vac @ 1A DC - 30Vdc/0.1A

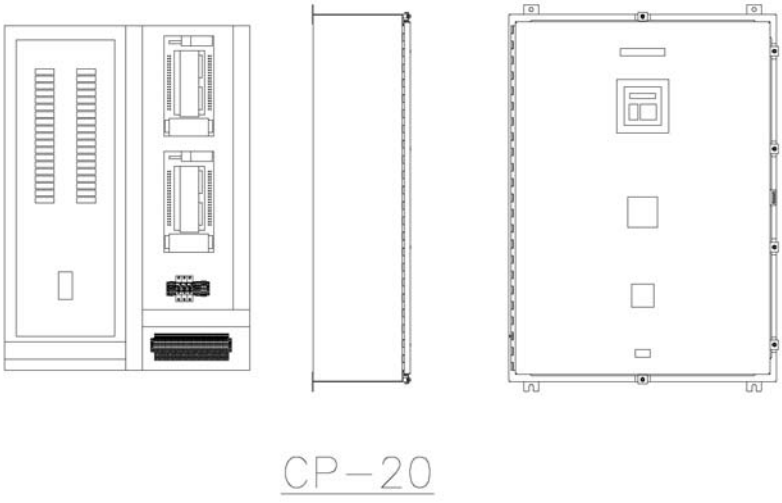
Additional Options	
Purge Systems	Purge Kits for Class 1 Div 1

ITraceCP-10



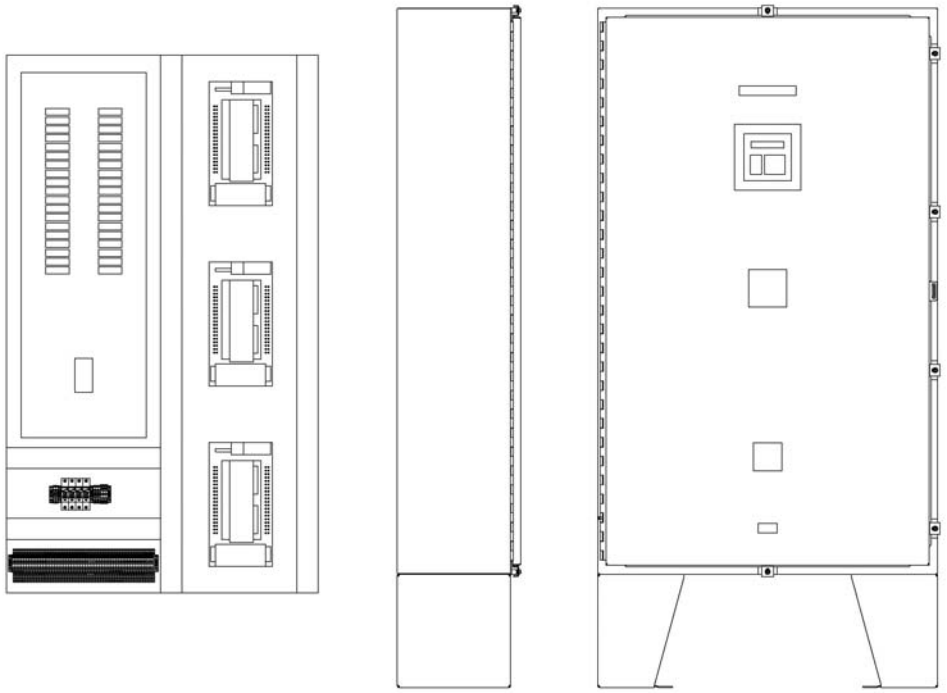
Heater Circuit:	10	**Dimension:**	42”x36”x 12” without legs
Breaker:	30A	**Max Main Disconnect:**	225A

iTraceCP-20



Heater Circuit:	20	**Dimension:**	48”x36”x12” without legs
Breaker:	30A	**Max Main Disconnect:**	225A

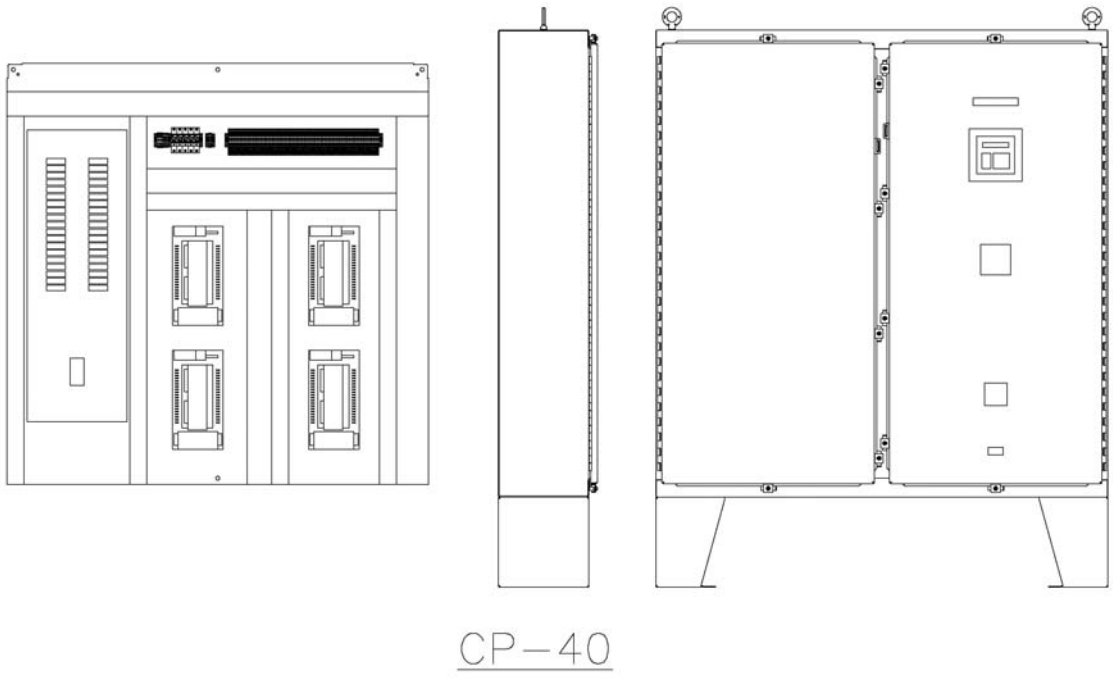
iTraceCP-30



Heater Circuit:	30*	**Dimension:**	60”x36”x12” with legs
Breaker:	30A	**Max Main Disconnect:**	225A

iTrace
www.heattracecontroller.com
sales@heattracecontroller.com

ITraceCP-40



Heater Circuit:	40*	**Dimension:**	60”x60”x12” with legs
Breaker:	30A	**Max Main Disconnect:**	225A

** Twenty double pole breakers is the maximum number of breakers allowed in a single distribution panel. A single breaker can tie to multiple heating circuits. The sum of these heating circuits cannot be more than 30Amps. Optional panels can be designed to accommodate if necessary.*

iTrace
www.heattracecontroller.com
sales@heattracecontroller.com

iTrace
INTELLIGENT HEAT TRACE CONTROLS

iTrace Panel Spec Worksheet

913.307.0399 | sales@heattracecontroller.com

Number of Channels

CP-10	10 Heat Trace Channels
CP-20	20 Heat Trace Channels
CP-30	30 Heat Trace Channels
CP-40	40 Heat Trace Channels

Power Feed Voltage

-1	480V Rated 3 Phase
-2	208V Rated 3 Phase
-3	240V Rated 1 Phase
-4	208V Rated 1 Phase

Heat Circuit Voltage

1	277 VAC
2	120 VAC
3	208 VAC
4	240 VAC
C	CUSTOM (Custom Mix of 1P and 2P Breakers)

Main Breaker

0	80 A
1	100A
2	150A
3	200A
4	225A

NEMA Rating

-1	NEMA 12 Indoor Splash Proof
-2	NEMA 4 Outdoor Rain And Spray Proof (Standard)
-3	NEMA 4X Outdoor Rain And Corrosion Resistant

Module 1

1	Maintain
2	Freeze Protection (Ambient Sensing)

Module 2

1	Maintain
2	Freeze Protection (Ambient Sensing)
3	Freeze Protection (Slave Unit)
X	Not Used

Module 3

1	Maintain
2	Freeze Protection (Ambient Sensing)
3	Freeze Protection (Slave Unit)
X	Not Used

Module 4

1	Maintain
2	Freeze Protection (Ambient Sensing)
3	Freeze Protection (Slave Unit)
X	Not Used

Communication Option

0	None
1	Modbus
2	Allen Bradley Ethernet I/O

Floor Legs

-0	None (CP-10 And CP-20 Only)
-1	12" (Standard On CP-30, CP-40)
-2	18" (CP-10 And CP-20 Only)
-3	24" (CP-10 And CP-20 Only)

Purge Kit

0	No
P	Yes
PS	Yes With Alarm Output