Quality People. Building Solutions.

Comfort Systems USA (Arkansas), Inc.
P.O. Box 16620
Little Rock, AR 72231
Phone 501-834-3320
Fax 501-834-5416

Date: 10/10/2023
Return Request: 10/16/2023
Project: ASU Mid-South RC & UC Chiller Replacement
Supplier: Fluid Solutions
Manufacturer: Nelson
Submittal: Common Work Results for HVAC Equipment
Submittal Number: 23 05 00-01
Drawing # and Installation: Mechanical Drawings

ARCHITECT
Witsell Evans Rasco
901 W. Third Street
Little Rock, AR 72201
501-374-5300

ENGINEER
Pettit & Pettit
201 E. Markham St. #400
Little Rock, AR 72201
501-374-3731

GENERAL CONTRACTOR
Baldwin & Shell
3725 Champion Hills Driver, Suite 1300
Memphis, TN 38125
901-755-2952

MECHANICAL SUBCONTRACTOR
Comfort Systems USA (Arkansas), Inc.
9924 Landers Rd.
N. Little Rock, AR 72117
501-834-3320

Notes:

CSUSA PROJECT NO.
23-1024
jon@comfortar.com

SUBMITTAL DATA

Date: August 31, 2023
Project: ASU Midsouth
Contractor: Comfort Systems
Engineer: Pettit & Pettit

HEAT TRACE

Quantity	Item	Description
350.00	T.LT8JT	HEAT TRACE 8W 120V W/TPR JACKET OVER METAL BRAID
4.00	T.PLTBC	POWER CONNECTION KIT J12
2.00	T.GPT230	DUAL CHANNEL HEAT TRACE CONTROL, GFEPD, 30AMP LOADS, GFEPD, 30AMP LOADS, ADJUSTABLE SET POINT, NEMA4X IP66, TEMP/LOAD CURRENT/GROUND FAULT
6.00	T.GT60	TAPE FIBERGLASS - 1/2" X 180' ROLL
35.00	T.WS100	WARNING SIGNS
		REF: ASU Mid South Chiller
		120V, ORDINARY AREA, FREEZE PROTECTION, 1.5" FIBERGLASS, USED M1.02 TO TRACE NEW CHILLERS

6815 Dewaffelbaker Dr., Maumelle, AR 72113
Phone (501) 663-8886 • Fax (501) 663-8738
www.fluidsolutionsinc.com

Type LT Self–Regulating Heater Cable

For use in Ordinary and Hazardous (Classified) Locations

UL:	UL:	CSA:	CSA:	FM:	FM:	FM:
-CB, JT or -J options: Class I, Division 2, Groups A, B, C, D; Class II, Division 2, Groups F, G; Class I, Zone 1, AEx e II	-D1 option: Class I, Division 1, Groups B, C, D; Class II, Division 1, Groups E, F, G; Class III	-CB, -JT or -J options: Class I, Division 2, Groups B, C, D; Class II, Division 2, Groups E, F, G ; Class III; Class 1, Zone 2, Group IIB+H2	-J option: Class I, Division 1, Groups B, C, D; Class II, Division 1, Groups E, F, G; Class I, Zone 1, Group IIB, Zone 1, Ex e II T6 (T5)	-CB, -JT or -J options: Class I, Division 2, Groups A, B, C, D; Class II, Division 2, Groups F, G; Class III	-J option: Class I, Zone 1 AEx e II; Group IIC	-D1 option: Class I, Division 1, Groups B,C, D

Operating Principle

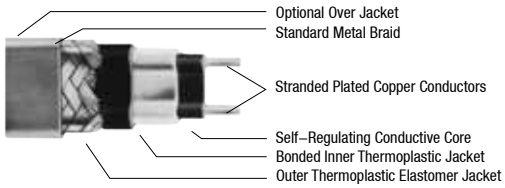
- The parallel bus wires apply voltage along the entire length of the heater cable.
- The conductive core provides an infinite number of parallel conductive paths permitting the cable to be cut to any length in the field with no dead or cold zones developing.
- The heater cable derives its self regulating characteristic from the inherent properties of the conductive core material.
- As the core material temperature increases, the number of conductive paths in the core material decrease, automatically decreasing the heat output.
- As the temperature decreases, the number of conductive paths increase, causing the heat output to increase.
- This occurs at every point along the length of the cable, adjusting the power output to the varying conditions along the pipe.
- The self regulating effect allows the cable to be overlapped without creating hot spots or burnout.
- As the cable self-regulates its heat output, it provides for the efficient use of electric power, producing heat only when and where it is needed, and also limiting the maximum sheath temperature.

Description

- Nelson Type LT self-regulating heater cable is a parallel circuit electric heater strip.
- An irradiation cross-linked conductive polymer core material is extruded over the multi stranded, tin-plated, 16 gauge copper bus wires.
- The conductive core material increases or decreases its heat output in response to temperature changes.
- Two jackets provide extra dielectric strength, moisture resistance, and protection from impact and abrasion damage.
- The inner thermoplastic jacket is extruded over and bonded to the core material.
- A thermoplastic elastomer over jacket is then extruded over the inner jacket.
- A stranded tinned copper metal braid is supplied on all heaters.
- An optional over jacket (fluoropolymer or modified polyolefin) can be specified when the heater cable is to be installed in wet or corrosive environments.
- The base product is supplied with a tinned copper metal braid that may be used in both general applications and in dry, non corrosive hazardous (classified) areas.

Application

- Nelson's Type LT self regulating heater cable is ideal for use in maintaining fluid flow under low ambient conditions.
- Freeze protection and low watt density process temperature systems such as product pipelines, fire protection, process water, dust suppression systems, lube oil, condensate return, hot water and structure anti-icing are typical applications for this product.



Accessories

- Nelson AX Series Connection Kits for Power, Splice, Tee Splice, Powered Splices and End Terminations
- Nelson HASK Series Division 1 Connection Kits for Power, Splice, Tee Splice and End Terminations
- Nelson EX Series Zone 1 Connection Kits for Power, Splice, Tee Splice and End Terminations
- Nelson TA, TH, TE and HC Series Thermostats and Contactors
- Junction Boxes, Tapes and Warning Signs
- Custom Control, Monitoring and Power Panels

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Performance Rating

Service Voltage	Maximum Maintenance Temperature °C (°F)	Maximum Intermittent Exposure °C (°F)	Watts/M (Watts/Ft)	T–Rating ①
120 / 240	65 (150)	85 (185)	10 (3)	T6
120 / 240	65 (150)	85 (185)	16 (5)	T6
120 / 240	65 (150)	85 (185)	26 (8)	T5
120 / 240	65 (150)	85 (185)	33 (10)	T5

Circuit Breaker Selection

		Max. Length in Meters (Feet) Vs. Circuit Breaker Size								
		120 VAC				240 VAC				
Watts/M (Watts/Ft)	Start–Up Temp. °C (°F)	15A	20A	30A	40A	15A	20A	30A	40A	50A
10 (3)	10 (50)	100 (320)	115 (370)	115 (370)	115 (370)	190 (630)	225 (740)	225 (740)	225 (740)	225 (740)
	-18 (0)	65 (220)	90 (290)	115 (370)	115 (370)	140 (465)	175 (580)	225 (740)	225 (740)	225 (740)
	-29 (-20)	60 (195)	80 (260)	115 (370)	115 (370)	115 (385)	155 (515)	225 (740)	225 (740)	225 (740)
16 (5)	10 (50)	65 (220)	85 (280)	85 (280)	85 (280)	135 (445)	170 (560)	170 (560)	170 (560)	170 (560)
	-18 (0)	45 (150)	60 (200)	85 (280)	85 (280)	90 (300)	120 (400)	170 (560)	170 (560)	170 (560)
	-29 (-20)	40 (135)	55 (175)	80 (265)	85 (280)	80 (265)	105 (350)	160 (525)	170 (560)	170 (560)
26 (8)	10 (50)	45 (150)	65 (205)	70 (225)	70 (225)	90 (300)	120 (400)	135 (450)	135 (450)	135 (450)
	-18 (0)	30 (105)	45 (140)	65 (215)	70 (225)	65 (210)	85 (285)	130 (425)	135 (450)	135 (450)
	-29 (-20)	30 (95)	40 (125)	60 (190)	70 (225)	60 (190)	80 (255)	115 (380)	135 (450)	135 (450)
33 (10)	10 (50)	40 (125)	50 (165)	60 (200)	60 (200)	75 (250)	100 (335)	120 (400)	120 (400)	120 (400)
	-18 (0)	25 (90)	40 (125)	55 (185)	60 (200)	55 (185)	75 (245)	110 (365)	120 (400)	120 (400)
	-29 (-20)	25 (85)	35 (110)	50 (165)	60 (200)	50 (165)	65 (220)	100 (330)	120 (400)	120 (400)

① Electrical equipment T rating codes define the maximum surface temperature that equipment will reach. It is used in hazardous (classified) area applications.

Notes

1. *Circuit breakers are sized per national electrical codes.*
2. *When using 240 volt product at 208, 220 or 277 volts, use the circuit adjustment factors shown in the Voltage Adjustment Table.*
3. *When using 2 or more heater cables of different wattage ratings in parallel on a single circuit breaker, use the 15A column amperage of 15 amps, divide it by the maximum footage to arrive at an amps/foot figure for each cable. You can then calculate circuit breaker sizes for these combination loads. These amps foot factors include the 125% sizing factor.*
4. *National electrical codes require ground-fault equipment protection for each branch circuit supplying electric heating equipment. Exceptions to this requirement can be found in the N.E.C.*
5. *Heater cables with D1 optional construction require the use of ground fault interrupter/ground leakage device with a trip setting no greater than 30mA.*

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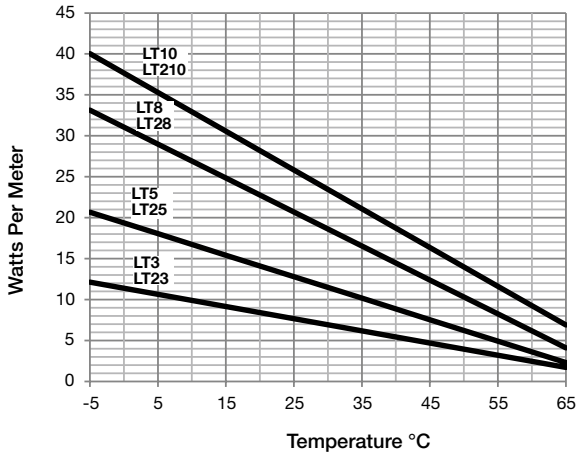
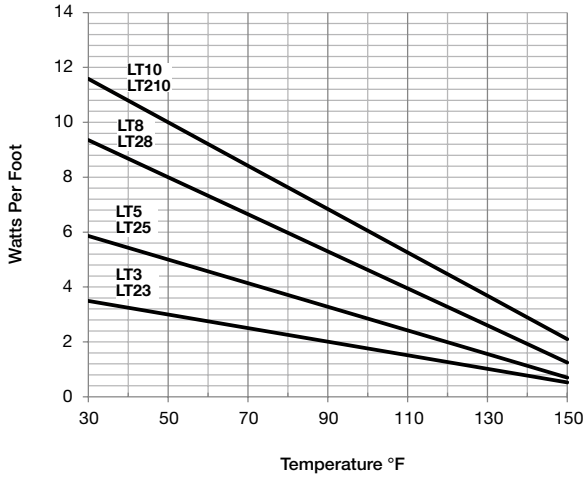
Power Output Rating





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Selection Table

Service Voltage	Maximum Segment Length Meters (Feet)	Description	Catalog Number
120	115 (370)	Tinned Copper Braid	**LT3-CB**
		Tinned Copper Braid and Fluoropolymer	**LT3-J**
		Tinned Copper Braid and Modified Polyolefin	**LT3-JT**
		Class 1, Division 1, Groups B, C and D	**D1-LT3**
240	225 (740)	Tinned Copper Braid	**LT23-CB**
		Tinned Copper Braid and Fluoropolymer	**LT23-J**
		Tinned Copper Braid and Modified Polyolefin	**LT23-JT**
		Class 1, Division 1, Groups B, C and D	**D1-LT23**
120	85 (280)	Tinned Copper Braid	**LT5-CB**
		Tinned Copper Braid and Fluoropolymer	**LT5-J**
		Tinned Copper Braid and Modified Polyolefin	**LT5-JT**
		Class 1, Division 1, Groups B, C and D	**D1-LT5**
240	170 (560)	Tinned Copper Braid	**LT25-CB**
		Tinned Copper Braid and Fluoropolymer	**LT25-J**
		Tinned Copper Braid and Modified Polyolefin	**LT25-JT**
		Class 1, Division 1, Groups B, C and D	**D1-LT25**
120	70 (225)	Tinned Copper Braid	**LT8-CB**
		Tinned Copper Braid and Fluoropolymer	**LT8-J**
		Tinned Copper Braid and Modified Polyolefin	**LT8-JT**
		Class 1, Division 1, Groups B, C and D	**D1-LT8**
240	135 (450)	Tinned Copper Braid	**LT28-CB**
		Tinned Copper Braid and Fluoropolymer	**LT28-J**
		Tinned Copper Braid and Modified Polyolefin	**LT28-JT**
		Class 1, Division 1, Groups B, C and D	**D1-LT28**
120	60 (200)	Tinned Copper Braid	**LT10-CB**
		Tinned Copper Braid and Fluoropolymer	**LT10-J**
		Tinned Copper Braid and Modified Polyolefin	**LT10-JT**
		Class 1, Division 1, Groups B, C and D	**D1-LT10**
240	120 (400)	Tinned Copper Braid	**LT210-CB**
		Tinned Copper Braid and Fluoropolymer	**LT210-J**
		Tinned Copper Braid and Modified Polyolefin	**LT210-JT**
		Class 1, Division 1, Groups B, C and D	**D1-LT210**

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Voltage Adjustment ①

Absolute Max Length Meters (Feet)	Adjustment Multiplier 208 VAC Power	208 VAC Length	220 VAC Power	220 VAC Length	277 VAC Power	277 VAC Length	Product
225 (740)	0.76	0.93	0.85	0.96	1.27	1.07	LT23
170 (560)	0.79	0.93	0.87	0.96	1.24	1.07	LT25
135 (450)	0.84	0.93	0.90	0.96	1.19	1.08	LT28
120 (400)	0.86	0.93	0.92	0.96	1.16	1.09	LT210

① *Use of Self-Regulating heater products at other than rated voltages require minor adjustments in power and maximum circuit lengths.*

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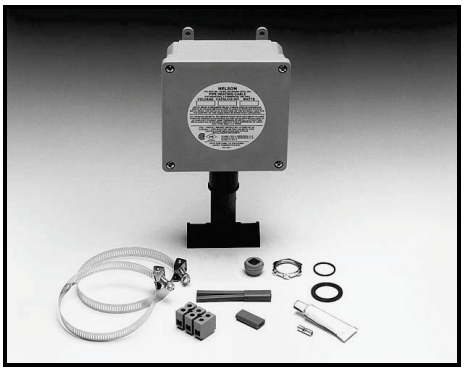
NELSON HEAT TRACE

NELSON™
PLT SERIES CONNECTION KITS

SELECTION GUIDE

Nelson's PLT Series non-metallic connection kits are Factory Mutual, Underwriter's Laboratory and Canadian Standards Association approved for use in ordinary and Division 2 hazardous areas when used with approved. PLT Series connection kits are approved for use with all Nelson LT, HLT and NC Series field-fabricated heating cables. Enclosures supplied in PLT Series connection kits are rated NEMA 4X.

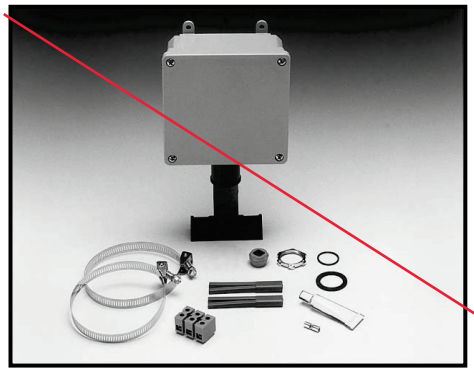


PLT-BC Power Connection Kit:

The PLT-BC Power Connection Kit is suitable for connecting up to two heating cables to customer supplied power wiring.

Kit Contents:

1 Universal Base, Box Adapter, Sealing Gasket, O-Ring and Locknut
1 Junction Box with Sealing Gasket and Cover
1 Sealing Grommet (Specify Cable Construction*)
1 Power Termination and Cable End Seal with Adhesive Sealant
1 3-Point Floating Terminal Block
1 Ground Connection Splice
2 Stainless Steel Pipe Clamps (Specify Pipe Size)
* Selection of -U grommet includes (1) additional power termination and (1) additional end seal for multiple cable entry.

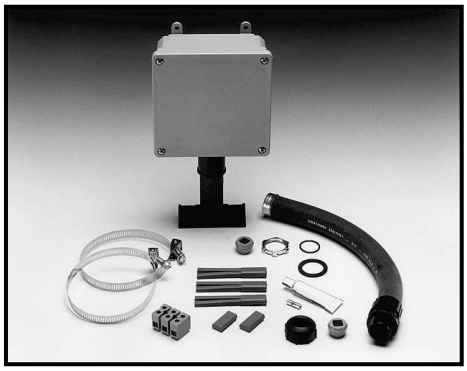


PLT-BS Splice Connection Kit:

The PLT-BS Splice Connection Kit is designed for connecting two heating cables in an in-line splice configuration.

Kit Contents:

1 Universal Base, Box Adapter, Sealing Gasket, O-Ring and Locknut
1 Junction Box with Sealing Gasket and Cover
1 Universal Sealing Grommet
2 Power Terminations with Adhesive Sealant
1 3-Point Floating Terminal Block
1 Ground Connection Splice
2 Stainless Steel Pipe Clamps (Specify Pipe Size)



PLT-BY Tee Connection Kit:

The PLT-BY Tee Connection Kit is designed for connecting three heating cables in a tee splice configuration.

Kit Contents:

1 Universal Base, Box Adapter, Sealing Gasket, O-Ring and Locknut
1 Junction Box with Sealing Gasket and Cover
1 Watertight Connection Fitting and Hi-Temp Flexible Tubing
1 Sealing Grommet (Specify Cable Construction)
* Power Terminations and Cable End Seals with Adhesive Sealant
1 3-Point Floating Terminal Block
1 Ground Connection Splice
2 Stainless Steel Pipe Clamps (Specify Pipe Size)
* Number of cable terminations based on standard usage of tee splice configuration; (3) power terminations and (2) end seals.

NELSON™
PLT SERIES CONNECTION KITS

SELECTION GUIDE

Nelson's PLT Series non-metallic connection kits include all components necessary to complete the installation of Nelson's full line of heat tracing cables. The selection tables below allow for the proper specifying of the complete connection kit assembly (example: PLT - BC - J - 12).

PLT-

	SPECIFY KIT CONFIGURATION
BC	Power Connection
BS	Splice Connection
BY	Tee Connection

	SPECIFY CABLE CONSTRUCTION
B	Braided Heater
J	Overjacketed Heater
U	Multiple (2) Cable Entry or Special Heater Constructions

	SPECIFY PIPE SIZE
3	.75 – 3.0
12	3.5 – 12.0
20	12.5 – 20.0

Nelson Heat Tracing Systems products are supplied with a limited warranty. Complete Terms and Conditions may be found on Nelson's website at www.nelsonheaters.com.

NELSON HEAT TRACE
P.O. BOX 726 • TULSA, OKLAHOMA 74101 • 918-627-5530 • 918-641-7336 • www.nelsonheaters.com
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Accessories for Field Fabricated Heater Cables

General Accessories

General Accessories for use with Type LT, HLT, XLT, CLT Self-Regulating Heating Cables

Molded Silicone Terminations

- LT-MP (-LLT for Type LLT heating cable)
  - Molded Silicone Power End Termination Kit with Adhesive. Used for terminating field-fabricated heater cables inside the power connection box. Each kit makes 5 complete terminations.
- LT-ME (-LLT for Type LLT heating cable)
  - Molded Silicone End Seal Termination Kit with Adhesive. Used for terminating the ends of field-fabricated heater cables. Each kit makes 5 complete terminations.

Quick-Connect End Seal Terminations

- CES Push-On End Seal Kit (Type CLT heating cable)
  - Quick connect SR End Seal Kit. Used for terminating the ends of field-fabricated heating cables and can be used on all 3, 5 and 8-watt CLT heating cables. Easy push-on design allows for quick installation, forming a permanent connection. Used without heat gun for portability on job site. Indoor/Outdoor approved for wet/dry Pipe Trace and Roof & Gutter applications. Each kit includes two (2) water-resistant End Seals.

Heat Shrinkable Terminations

- LT-SP (Type LT/CLT)
- LT-HSP (Type HLT)
  - LT-NSP (Type NC)
    Heat-Shrinkable Power End Termination Kit. Used for terminating field-fabricated heater cables inside the power connection box. Approved for use with Braided (-CB) product, in ordinary (unclassified) areas. (Exception: LT-SP kits may also be used with Over Jacketed (-JT) product.) Each kit makes 5 complete terminations.
- LT-SE (Type LT/CLT)
- LT-HSE (Type HLT)
- LT-NSE (Type NC)
  - Heat-Shrinkable End Seal Termination Kit. Used for terminating the ends of field-fabricated heater cables. Approved for use with Braided (-CB,) product, in ordinary (unclassified) areas. (Exception: LT-SE kits may also be used with Over Jacketed (-JT) product.) Each kit makes 5 complete terminations.

Pipe and Tank Adapters

- LT-P
  - Pipe Adapter Kit. Used to mount the base of PLT Series connection kits on small diameter (0.875" and below) pipe or tubing.
- LT-T
  - Tank Adapter Kit. Used to mount the base of PLT Series connection kits directly to the wall of a tank or vessel.
- HC-SPA
  - Pipe Adapter Kit. Used to mount the base of AX/EX Series connection kits on small diameter (1.315” and below) pipe or tubing.

End of Circuit Lights

- PLK-120, PLK-208, PLK-240, PLK-277
  - End of Circuit Light Assembly. Used with Nelson PLT-L connection kits.
- LB6R
  - Spare Replacement Bulb. For PLK series light assemblies.

Conduit Entry Seals

- ES-B (Braided Heater)
- ES-J (Over Jacketed Heater)
- ES-U (Multiple (2) Cable Entry or Special Constructions
  - Waterproof Conduit Entry Seal, 0.5" NPT. Used for terminating field-fabricated heater cables when standard connection kits are not utilized.

Pipe Clamps

- PC-03 (3.0" Diameter and below)
- PC-12 (3.5" – 12.0" Diameter)
- PC-20 (12.5" – 20.0" Diameter)
  - Pipe Clamps, stainless steel. Used to attach connection kits to pipe.

Terminal Blocks

- TB-1 (3-Point)
- TB-4 (4-Point)
  - Floating Terminal Block. Used in any enclosure to provide positive, sure electrical connections. Rated 40 Amps at 440 Vac, requires no lugs.

Universal Grommets

- PLT-U
  - Universal Grommet with Adhesive. Used with Nelson PLT-B kits for multiple (2) cable entry or special heater constructions.

Junction Box

- JB552
  - Non-Metallic Junction Box, 5" x 5" x 2", NEMA 4X. Used for terminating field-fabricated heating cables.

Warning Sign

- WS-100
  - Weatherproof Warning Sign. Used for cautioning maintenance personnel of the presence of electric heat tracing cable under the insulation. Attached to the outside of pipe insulation in frequent intervals. Black Lettering with Yellow background.

Tape

- GT-60 (60 Yards)
- GT-6 (20 Yards)
  - Fiberglass Tape, 0.5" wide. Used to attach heater cables to pipe or to attach temperature sensors to the pipe when corrosive conditions prevent the use of aluminum tape.
- AT-50 (50 Yards)
  - Aluminum Foil Tape, 2.0" wide. Used to attach heater cable to vessels to dissipate heat on non-metallic surfaces or to attach thermostat sensing bulbs to pipes.

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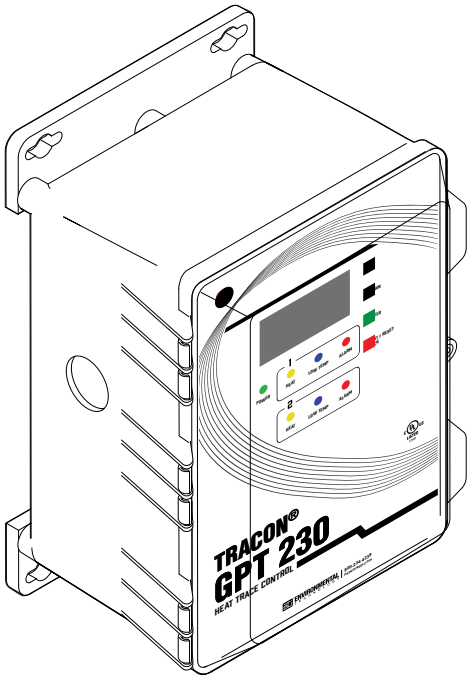
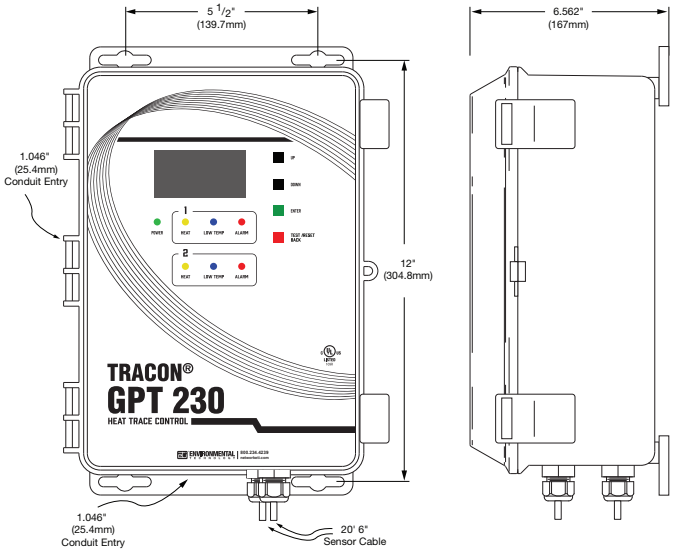
We manage heat®

Dual Channel Automatic Heat–Trace Control
TRACON MODEL GPT 230

DATA SHEET





The GPT 230 Dual Channel Heat–Trace Control is an electronic power–control thermostat. It is ideal for applications which require two independent heater–control Channels with Ground–Fault Equipment Protection (GFEP). Ideal uses include freeze protection, hot water temperature maintenance, grease line trace, and other temperature monitoring and control applications.

The GPT 230 Heat–Trace Control operates from the heater's power source. A universal power supply allows the GPT 230 to operate from 100 V ac to 277 V ac. It can independently or jointly control two resistive loads up to 30 amps each.

Adjustable Temperature Setpoint and Alarms

The temperature setpoints are adjustable from –99.9 °F to 999 °F (–73.3 °C to 537.7 °C) to a tenth degree resolution.

Sensor Inputs

The GPT 230 comes with a 100K ohm thermistor temperature sensor with a 20 ft. jacketed cable. The included sensor has an operating range of –40 °F to 230 °F (–40 °C to 110 °C). The GPT 230 can also use 2–, 3–, or 4–wire RTD sensors for systems requiring high–temperature sensing. Two temperature sensor inputs are provided, and the channels can operate independently or from one sensor.

Precision Monitoring and Control

The GPT 230 monitors temperature, load current, and ground leakage current. Alarms include high temperature, low temperature, high load current, low load current, ground fault, sensor fault, internal fault, and power fail. These alarms are easy to adjust and observe from the front panel. The GPT 230 can be set to energize or de-energize the heaters during a sensor fault.

Ground–Fault Equipment Protection

The GPT 230 Heat–Trace Control includes integral GFEP for each channel. This eliminates the extra expenses associated with having to provide separate GFEP components in the circuit panel. The GPT 230 normally disconnects power immediately to the affected zone when ground fault current exceeds the set value. But if it is set to Fire Protect mode, for critical fire protection systems, then it will generate the alarm but power will be maintained to prevent freezing.

Automatic GFEP Circuit Self–Test

To ensure continued safe operation, the GPT 230 performs a self–test of the GFEP circuits when power is first applied, along with a load ground fault test, and this repeats periodically thereafter at an adjustable interval.

For complete information describing its application, installation, and features, please contact Customer Service or check on the web at networketi.com.

Specifications

General	
Certifications	UL 60730–1, UL 1053, CSA E60730–1:13
Environmental	
Area of use	Nonhazardous locations
Operating temperature range	–40 °F to 122 °F (–40 °C to 50 °C)
Enclosure	
Dimensions	9.0" (W) 12 4/5" x (H) x 5 9/10" (D) 229 mm (W) x 325 mm (H) x 150 mm (D)
Ingress protection	NEMA 4X, IP66
Cover attachment	Polycarbonate cover
Cable entries	Two liquid-tight cable glands installed for sensor and alarm leads, cable diameter 0.08" to 0.24" (2 mm to 6 mm) Two 1.046" holes to accommodate ¾" conduit fittings for power wiring connections
Material	Polycarbonate
Weight	5.8 lb. (2.63 kg)
Mounting	Wall mount with flanges
Wiring Terminal Ratings	
Power	Barrier Strip Terminals for Line, Neutral, and Ground; use 10 AWG wires rated for at least 194 °F (90 °C)
Sensors	Terminal Block, rising cage clamp, 12–28 AWG leads
Alarm relay	Terminal Block, rising cage clamp, 12–28 AWG leads
Parameter Settings	
Temperature setpoint heat ON	Adjustable –99.9 °F to 999 °F (–73.3 °C to 537.7 °C)
Temperature setpoint heat OFF	Adjustable –99.9 °F to 999 °F (–73.3 °C to 537.7 °C)
Low–temperature alarm threshold	–99.9 °F to 999 °F (–73.3 °C to 537.7 °C) Default 35 °F (–1.7 °C)
Low–temperature alarm delay	0 s to 3000 s Default 300 s
High–temperature alarm threshold	–99.9 °F to 999 °F (–73.3 °C to 537.7 °C) Default 140 °F (60 °C)
High–temperature alarm delay	0 s to 3000 s Default 300 s
Low–current alarm threshold	0.0 A to 10.0 A Default 0.1 A
Low–current alarm delay	0 s to 300 s Default 5 s
High–current alarm threshold	0.0 A to 55.0 A Default 30.0 A
High–current alarm delay	0 s to 600 s Default 300 s
Ground fault limit current	1.0 mA to 300.0 mA Default 30 mA
Self–text interval	1 h to 250 h when enabled Default 24 h

User Interfaces	
Pushbuttons	UP, DOWN, ENTER, TEST / RESET BACK
DIP switches	RTD wiring configuration Panel lockout
Indicators	
Status indicator	Power (Green) Heater (Yellow) Low Temperature (Blue) Summary alarm (Red)
Display	2.7" OLED graphic 128x64
Summary alarm relay reporting	Low temperature High temperature Low load current High load current High ground fault current Stuck relay Sensor fault Internal fault
Control Ratings	
Temperature accuracy	+/– 2 °F (1 °C)
Temperature Sensors	
Temperature inputs	(Included) Thermistor, 100k ohms at 25 °C, range –40 °F to 230 °F (–40 °C to 110 °C), 20ft Lead (25076) RTD Sensor, Platinum, Alpha = 0.00385, ITS–90, 100 ohms at 0 °C Input supports 2–wire, 3–wire, or 4–wire connection Sensor operates at 1 mA
GFEP (Ground–Fault Equipment Protection)	
Operation	Continuously tests ground fault current whenever the load is on; also manually and periodically tests equipment ground fault current with each self–test.
Range	Adjustable 1 mA to 300 mA, Default 30 mA
Automatic self–test	Verifies GFEP functionality every 24 hr. and whenever the load is energized
Power	
Supply voltage	100 – 277 V ac 50/60 Hz
Controller power consumption	7 W maximum, 2.2 W idle
Load rating, each channel	30 A, 100 – 277 V ac resistive

**Specifications are at 77 °F (25 °C) and are subject to change without notice.*

Ordering Information

Description	Part Number
Tracon MODEL GPT 230 Automatic Heat–Trace Control	25171
Temperature Sensor	25076

Limited Warranty

ETI's two year limited warranty covering defects in workmanship and materials applies. Contact Customer Service for complete warranty information.

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