Base Load Power Hub (BLPH)

HEATING JACKET SYSTEM DETAILED DRAWING
(INCLUDING ELECTRICAL CONNECTIONS)
PROGRESSIVE CAVITY PUMPS
For Sea Water Lift Progressive Cavity Pumps (P-50001 A/B)

Document Number: 1724000936-MAC-DD-00011

Document Class: 2

01	17/10/2024	Approved for Construction (AFC)	APD	GLL	AHN
00	17/09/2024	Issue for Review (IFR)	APD	GLL	AHN
Rev.	Date	Description	Prepared	Reviewed	Approved

PCM | keep it moving

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Revision / Change Log

Rev.	Description
00	Issue for Review (IFR)
01	Approved for Construction (AFC)

HOLDS LIST

No.	Description
1	
2	
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Electric Heat Tracing Design Data Chart

CIRCUIT REFERENCE	LINE REFERENCE	PIPE SIZE (mm)	PIPE LENGTH (M)	MAINT. TEMP. °C	OPER. TEMP. °C	AMB. TEMP. °C	INSULATION		HEATING CABLE			HEAT LOSS (W/M)	CABLE OUTPUT (W/M)	TOTAL LOAD (W)	CURRENT (A)		WATTAGE (W)	
							TYPE	THK. (mm)	TYPE	APP. RATIO	LENGTH (M)				OPER.	COLD	OPER.	COLD
01	SEAL SYSTEM	N/A	N/A	15	N/A	−8	MINERAL WOOL	10	HTSX 15−2−OJ	N/A	10	38.9	46.1	526	2.3	2.9	526	667

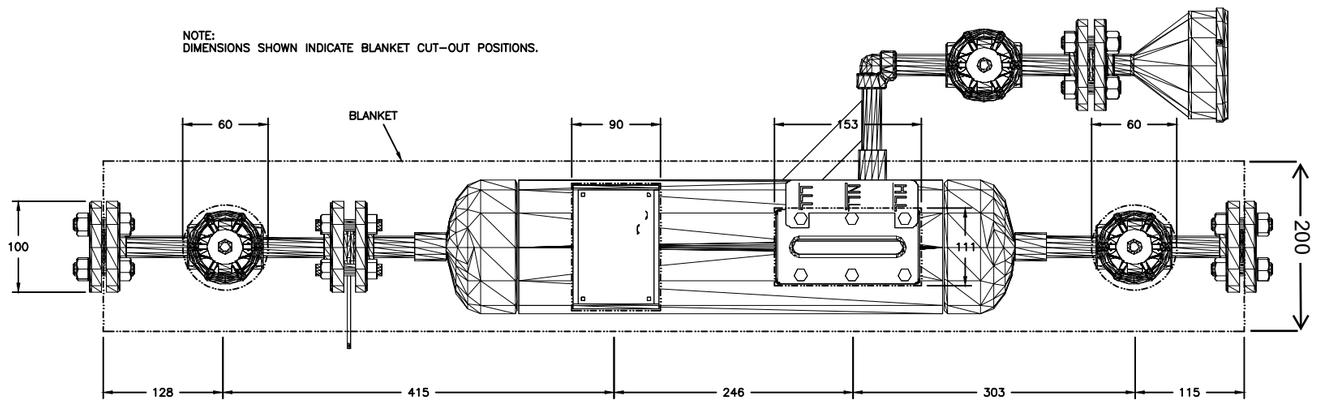
Electrical Class

VOLTAGE:	230V
ZONE:	1
GAS GROUP:	IIB
'T' CLASS:	T3

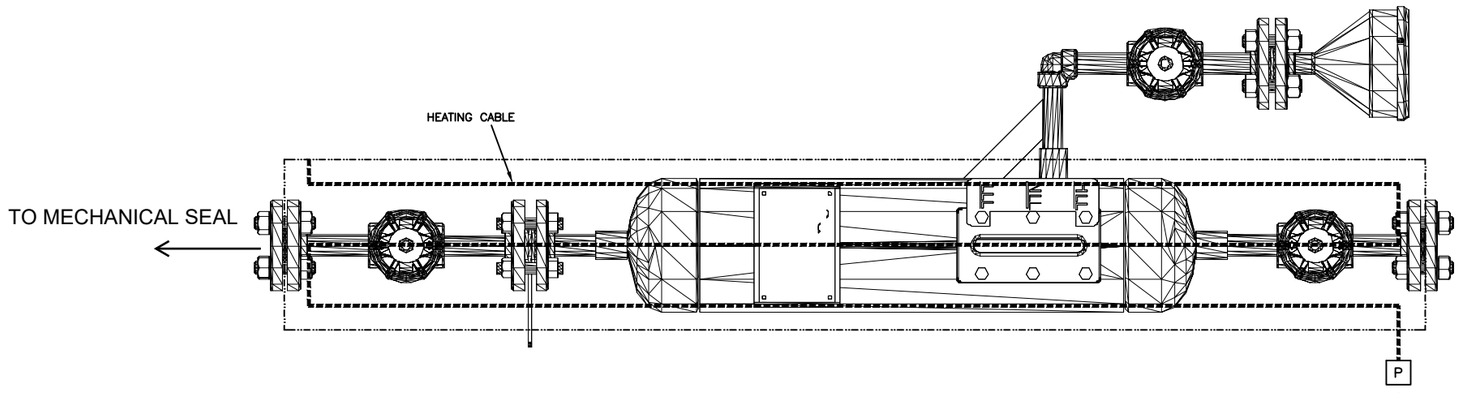
Notes

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NOTE:
DIMENSIONS SHOWN INDICATE BLANKET CUT−OUT POSITIONS.



ELECTRICAL HEAT TRACING BLANKET OUTLINE COVERING SEAL SYSTEM



HEATING CABLE REPRESENTATION WITHIN BLANKET COVERING SEAL SYSTEM

ON SITE POWER CABLES

PUMP ITEM NO.	EQUIPMENT TAG NUMBER		
	JB with included thermostat	Heat- Tracing Cables	Heat Tracing Power Cable
P-50001 A	ETB-200N1-20-L1-01A	H-ETE-200N1-20-L1-01A	P-ETB-200N1-20-L1-01A
P-50001 B	ETB-200N1-20-L1-01B	H-ETE-200N1-20-L1-01B	P-ETB-200N1-20-L1-01B

Bill Of Materials

Item	Quantity	Catalog No.	Description
①	10m	24952	HTSX 15−2−OJ SELF REGULATING HEATING CABLE
②	1	23379	TERMINATOR ZP−XP JUNCTION BOX
③	1	23420	PETK−2 TERMINATION KIT
④	1 ROLL	40000	FT−1H POLYESTER FIBRE FIXING TAPE
⑤	3	27208	CL−E−FR CAUTION LABEL
⑥			
⑦			
⑧			
⑨			
⑩			
⑪			
⑫			
⑬			
⑭			

Unit Cable Allowance (M)

Size	Valve	Support	Flange	Pump
3"	1.07	0.60	0.69	2.14
2"	0.76	0.50	0.61	1.22
1½"	0.76	0.50	0.61	0.92
1"	0.61	0.40	0.46	0.60
¾"	0.46	0.40	0.46	0.46

Reference Drawings

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REV.	DESCRIPTION	DRWN.	DSGD.	REVD.	APPR.	DATE
0	ISSUED FOR COMMENTS/APPROVAL.	C.M	S.F	C.L	C.L	12.9.24

Legend

P	POWER JUNCTION BOX
---	HEATING CABLE
⊐	CABLE END SEAL

THERMON FRANCE
5 Rue Charles de Gaulle Alfortville, 94140, France

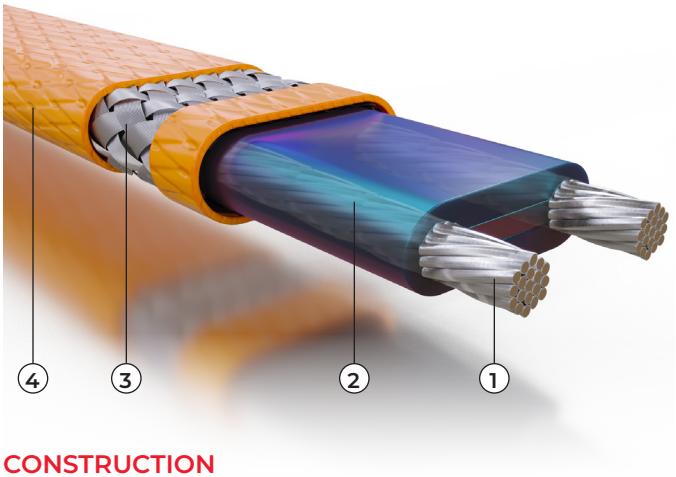
"This drawing is prepared solely for the use of the contractual customer of Thermon Heat Tracing Services ("Thermon") and Thermon assumes no liability to any other party for any representations contained in this drawing."

ENOLIA
ELECTRICAL HEAT TRACING BLANKET
SEAL SYSTEM

DWG. DESCRIPTION	ELECTRIC HEAT TRACING GENERAL ARRANGEMENT		
DRAWING No. 41J000213−7−1			
CUSTOMER PO. CF2408−4677			
PROJECT NUMBER 41J000213	**SCALE** NONE	**SHEET** 1 of 1	**REV** 0

TUK HT ISO v1.00

PRODUCT DATASHEET
HTSX™
SELF-REGULATING HEAT TRACING



APPLICATION

HTSX self-regulating trace heaters are designed specifically for process temperature maintenance or freeze protection where high temperature exposure capability is required. HTSX withstands the temperature exposures associated with steam purging. Constructed using Thermon's unique and proven monolithic co-extrusion process, HTSX is the market leading self-regulating heat tracing technology.

The heat output of HTSX varies in response to the surrounding temperature. Variations in the ambient temperature or heat lost through the thermal insulation are compensated for automatically along the entire length of a heat-traced pipe.

HTSX trace heaters are approved for use in ordinary (nonclassified) areas and hazardous (classified) areas.

RATINGS

Available power densities ..... 10, 20, 30, 33 [3], 39, 49, 66 W/m @ 10°C (3, 6, 9, 10 [3], 12, 15, 20 W/ft @ 50°F)

Supply voltages ..... 110-120, 208-277, or 380-480 Vac

Max. maintenance temperature
- (110-277 Vac) ..... 150°C (302°F)
- (380-480 Vac) ..... 121°C (250°F)

Max. exposure temperature
- Intermittent power-on or off
  - (110-277 Vac) ..... 250°C (482°F)
  - (380-480 Vac) ..... 204°C (400°F)
- Continuous power-off ..... 204°C (400°F)

Minimum installation temperature ..... -60°C (-76°F)

Minimum bend radius
- @ 5°F (-15°C) ..... 10 mm (0.38")
- @ -76°F (-60°C) ..... 32 mm (1.25")

T-rating [1]
- 3-1, 3-2, 6-1, 6-2, 9-1, 9-2, 10-4, 12-1, 12-2, 15-2, 15-4 ..... T3 200°C (392°F)
- 15-1 and 20-1 ..... T2D 215°C (419°F)
- 20-2, 20-4 ..... T2C 230°C (446°F)
- Based on stabilized design [2] ..... T3 to T6

Notes
1. T-rating per the National Electrical Code and Canadian Electrical Code.
2. Thermon trace heaters are approved for the listed T-ratings using the stabilized design method. This enables the trace heaters to operate in hazardous areas without limiting thermostats. The T-rating may be determined using CompuTrace® Electric Heat Tracing Design Software or contact Thermon for design assistance.
3. 33 W/m (10 W/ft) available only with 480 Vac nominal voltage.

CONSTRUCTION

1. Nickel-plated copper bus wires 1.3 mm² (16 AWG)
2. Semiconductive heating matrix and fluoropolymer dielectric insulation
3. Nickel-plated copper braid
4. Fluoropolymer overjacket provides additional protection to core, insulation, and braid where exposure to chemicals or corrosives is expected.

BASIC ACCESSORIES

Thermon offers system accessories designed specifically for rapid, trouble-free installation of Thermon heat tracing.

All trace heaters require a suitably certified connection kit to comply with approval requirements.

Hot end terminations > 230°C (446°F) must be completed using the Terminator DS/DE, ZS/ZE, DE-B, ZE-B kits.

NOTE:

"D" Kits Division 2 and Zone 2 Areas
"Z" Kits Zone 1 Areas

CERTIFICATIONS/APPROVALS

Canadian Standards Association
Ordinary Locations
Hazardous (Classified) Locations

Canada:
Class I, Division 1, Groups A, B, C and D
Class II, Division 1, Groups E, F and G
Class III
Ex 60079-30-1 IIC Gb
Ex 60079-30-1 IIIC Db

US:
Class I, Division 2, Groups A, B, C and D
Class II, Division 2, Groups E, F and G
Class III
Class I Zone 1 AEx 60079-30-1 IIC Gb
Class II Zone 21 AEx 60079-30-1 IIIC Db

FM Approvals (120 VAC and 240 VAC only)
Ordinary Locations
Hazardous (Classified) Locations

US Only:
Class I, Division 2, Groups B, C and D
Class II, Division 2, Groups E, F and G
Class III

Specific Conditions of Use:
1. Heat tracing systems must be installed using the manufacturer's suitably rated accessory kits in accordance with the applicable instructions.
2. For insulated externally heated surfaces, lower T-class systems may be obtained by utilizing stabilized design of a trace heating system using methods described in IEC 60079-30-2, using CompuTrace® Electric Heat Tracing Design Software or by Thermon Engineering. The system design parameters, including the resulting T-class, shall be retained as a record of system documentation for each stabilized system design for as long as the system is in use. The parameters in the system documentation shall be checked during commissioning of the system.

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For the Thermon office nearest you visit us at www.thermon.com

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PRODUCT DATASHEET

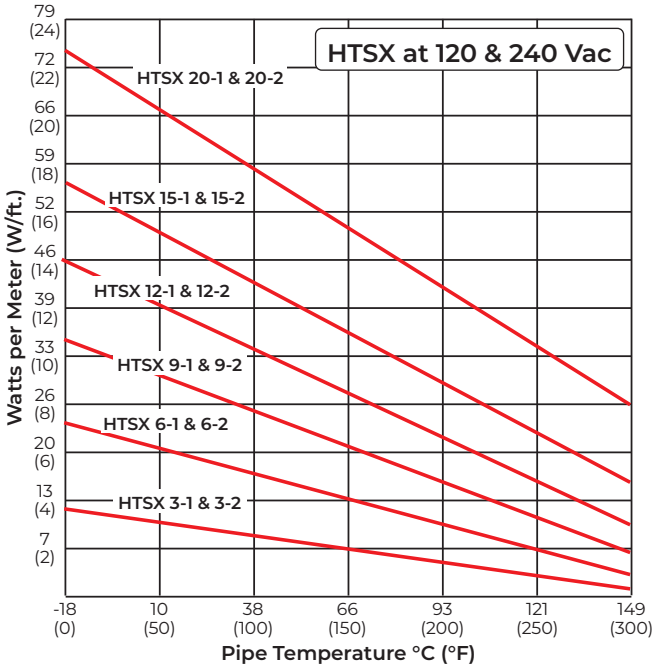
HTSX™

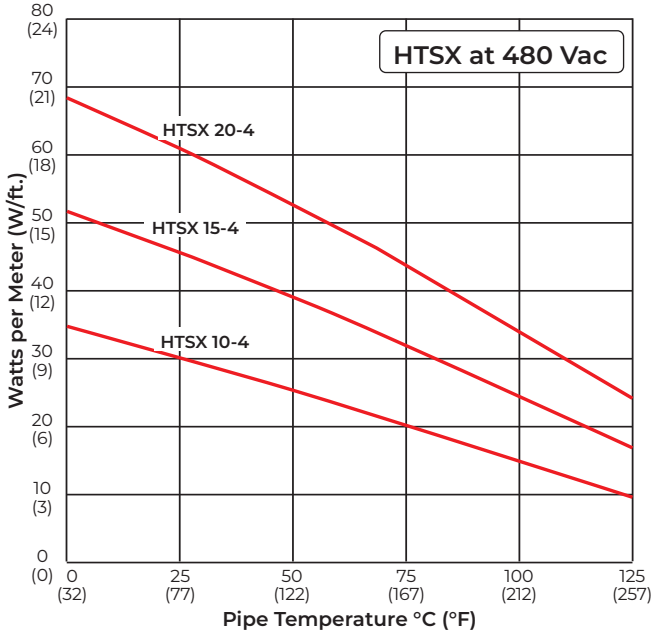
SELF-REGULATING HEAT TRACING

POWER OUTPUT CURVES[1]

The power outputs shown apply to trace heater installed on insulated metallic pipe (using the procedures outlined in IEC/IEEE 60079-30-1) at the service voltages stated below. For use on other service voltages, contact Thermon.

Catalog Number 120 Vac Nominal	Catalog Number 240 Vac Nominal	Catalog Number 480 Vac Nominal	Power Output at 10°C (50°F) W/m (W/ft)
HTSX 3-1	HTSX 3-2		10 (3)
HTSX 6-1	HTSX 6-2		20 (6)
HTSX 9-1	HTSX 9-2		30 (9)
		HTSX 10-4	33 (10)
HTSX 12-1	HTSX 12-2		39 (12)
HTSX 15-1	HTSX 15-2	HTSX 15-4	49 (15)
HTSX 20-1	HTSX 20-2	HTSX 20-4	66 (20)





CIRCUIT BREAKER SIZING[2]

120 Vac Service Voltage		Max. Circuit Length[3] vs. Breaker Size - m (ft)		
Catalog Number	Start-Up Temp °C (°F)	20 A	30 A	40 A
HTSX 3-1	10 (50)	109 (360)	109 (360)	109 (360)
	-18 (0)	109 (360)	109 (360)	109 (360)
	-29 (-20)	109 (360)	109 (360)	109 (360)
	-40 (-40)	109 (360)	109 (360)	109 (360)
HTSX 6-1	10 (50)	71 (235)	77 (250)	77 (250)
	-18 (0)	71 (235)	77 (250)	77 (250)
	-29 (-20)	71 (235)	77 (250)	77 (250)
	-40 (-40)	71 (235)	77 (250)	77 (250)
HTSX 9-1	10 (50)	52 (170)	62 (205)	62 (205)
	-18 (0)	52 (170)	62 (205)	62 (205)
	-29 (-20)	52 (170)	62 (205)	62 (205)
	-40 (-40)	50 (165)	62 (205)	62 (205)
HTSX 12-1	10 (50)	41 (135)	54 (175)	54 (175)
	-18 (0)	41 (135)	54 (175)	54 (175)
	-29 (-20)	41 (135)	54 (175)	54 (175)
	-40 (-40)	38 (125)	54 (175)	54 (175)
HTSX 15-1	10 (50)	30 (100)	48 (160)	49 (160)
	-18 (0)	29 (95)	46 (150)	49 (160)
	-29 (-20)	27 (90)	44 (145)	49 (160)
	-40 (-40)	26 (85)	41 (135)	49 (160)
HTSX 20-1	10 (50)	26 (85)	40 (130)	42 (140)
	-18 (0)	24 (80)	37 (120)	42 (140)
	-29 (-20)	23 (75)	35 (115)	42 (140)
	-40 (-40)	21 (70)	33 (110)	42 (140)

240 Vac Service Voltage		Max. Circuit Length[3] vs. Breaker Size - m (ft)		
Catalog Number	Start-Up Temp °C (°F)	20 A	30 A	40 A
HTSX 3-2	10 (50)	217 (710)	217 (710)	217 (710)
	-18 (0)	214 (700)	217 (710)	217 (710)
	-29 (-20)	187 (615)	217 (710)	217 (710)
	-40 (-40)	162 (530)	217 (710)	217 (710)
HTSX 6-2	10 (50)	143 (470)	154 (505)	154 (505)
	-18 (0)	132 (435)	154 (505)	154 (505)
	-29 (-20)	120 (390)	154 (505)	154 (505)
	-40 (-40)	108 (355)	154 (505)	154 (505)
HTSX 9-2	10 (50)	104 (340)	125 (410)	125 (410)
	-18 (0)	95 (310)	125 (410)	125 (410)
	-29 (-20)	88 (290)	125 (410)	125 (410)
	-40 (-40)	81 (265)	125 (410)	125 (410)
HTSX 12-2	10 (50)	82 (270)	109 (355)	109 (355)
	-18 (0)	74 (245)	109 (355)	109 (355)
	-29 (-20)	70 (230)	109 (355)	109 (355)
	-40 (-40)	65 (215)	104 (340)	109 (355)
HTSX 15-2	10 (50)	61 (200)	96 (315)	96 (315)
	-18 (0)	53 (175)	84 (275)	96 (315)
	-29 (-20)	51 (165)	79 (260)	96 (315)
	-40 (-40)	48 (155)	74 (245)	96 (315)
HTSX 20-2	10 (50)	48 (155)	75 (245)	84 (275)
	-18 (0)	42 (140)	65 (215)	84 (275)
	-29 (-20)	40 (130)	62 (205)	84 (275)
	-40 (-40)	38 (125)	59 (190)	80 (265)

480 Vac Service Voltage		Max. Circuit Length[3] vs. Breaker Size - m (ft)		
Catalog Number	Start-Up Temp °C (°F)	20 A	30 A	40 A
HTSX 10-4	10 (50)	166 (545)	203 (665)	203 (665)
	-18 (0)	148 (485)	203 (665)	203 (665)
	-29 (-20)	142 (465)	203 (665)	203 (665)
	-40 (-40)	139 (455)	203 (665)	203 (665)
HTSX 15-4	10 (50)	105 (345)	160 (525)	160 (525)
	-18 (0)	94 (310)	151 (495)	160 (525)
	-29 (-20)	91 (300)	145 (475)	160 (525)
	-40 (-40)	88 (290)	140 (460)	160 (525)
HTSX 20-4	10 (50)	88 (290)	136 (445)	136 (445)
	-18 (0)	79 (260)	126 (415)	136 (445)
	-29 (-20)	78 (255)	122 (400)	136 (445)
	-40 (-40)	75 (245)	119 (390)	134 (440)

Notes:

1. For more precise power output values as a function of pipe temperature, refer to CompuTrace®.
2. Breaker sizing should be based on the National Electrical Code, Canadian Electrical Code or any other applicable code. The National Electrical Code and Canadian Electrical Code require ground-fault protection of equipment for each branch circuit supplying electric heating equipment. Check local codes for ground-fault protection requirements.
3. The maximum circuit length is for one continuous length of trace heater, not the sum of segments of trace heater. Refer to CompuTrace® design software or contact Thermon for current loading of segments.

PRODUCT SPECIFICATIONS

Terminator™

HEATING CABLE TERMINATION KITS

APPLICATION

Power Connection, In-Line/T-Splice, End Termination Lighted Power Connection/End Termination. Terminator nonmetallic termination kits are designed specifically for rapid, trouble-free installation of Thermon self-regulating, power-limiting, and series polymer insulated heating cables. The integral design of these nonmetallic kits combines the pipe-mounted fitting, heating cable grommet and cable strain relief into a single assembly. Screws for securing the covers of the kits have been eliminated to simplify cover installation while providing additional security (a tool is required to remove the cover after installation).

Terminator kits are approved for use in ordinary (nonclassified) areas and hazardous (classified) areas.

PETK Circuit fabrication kits are required for use with all Thermon Parallel Heating Cables Connection Kits. Kits for termination of SX cables include a power connection boot, end cap, RTV adhesive and a caution label. Kits for termination of HPT and FP cables also include tape strip and a distinct grommet.

SCTK Splice connection termination kits are required when preparing outside-the-insulation splices with all Thermon Parallel Heating Cables Connection Kits. Kits for terminations of SX cables include 2 splice connection boots, assorted wire nuts and RTV adhesive. Kits for termination of HPT and FP cables also include a distinct grommet.

RATINGS

Enclosure rating .....NEMA 4X, IP66
Maximum pipe exposure temperature .....250°C (482°F)
Minimum installation temperature ..... -60°C (-76°F)
Oper. ambient temp.2..... -60°C (-76°F) to +55°C (+131°F)
Maximum voltage rating..... 600 Vac

Notes

1. Electrostatic charge resistant glass reinforced polymer standard on ZP, ZL, ZS/ZE kits.
2. DE-B and ZE-B operating ambient temperature is-60°C (-76°F) to 45°C (+113°F) with T6 T-rating. Higher ambients are possible, contact Thermon for corresponding T-rating.

PRODUCT REFERENCE LEGEND

"D" Kits Division 2 and Zone 2 Areas
"Z" Kits Zone 1 Areas

Kits for BSX, RSX, HTSX, KSX, VSX-HT, USX, HPT & FP Cables
DP or ZP = Power Connection Kit
DL or ZL = Lighted Power Connection/End Termination Kit
DS/DE or ZS/ZE = In-Line Splice or End Termination Kit
DE-B or ZE-B = LED End of Circuit Light Kit

Kits for TEK and HTEK Cables
DP-M or ZP-M = Power Connection Kit

Kits for MIQ Cables
ZP-MI = Power Connection Kit



Terminator Beacon

Terminator DP

CONSTRUCTION

1 Junction box, glass-reinforced polymer [1] with DIN rail mounted terminal blocks
2 Pipe-mount expediter, glass-reinforced polymer [1]
3 Stainless steel pipe attachment band
4 Splice cap, glass-reinforced polymer [1]

CERTIFICATIONS/APPROVALS

Terminator kits have the following approvals when used in conjunction with Thermon heating cables:

FM Approvals
Ordinary Locations
Hazardous (Classified) Locations
Class I, Division 2, Groups A, B, C and D
Class II, Division 2, Groups F and G
Class III, Divisions 1 and 2
Class I, Zone 2, Group IIC
Class I, Zone 1, AEx e II (ZP, ZL, ZS/ZE, ZE-B only)

Underwriters Laboratories Inc.
Ordinary Locations
Hazardous (Classified) Locations
Class I, Division 2, Groups A, B, C and D
Class II, Division 2, Groups F and G
Class III, Divisions 1 and 2
Class I, Zone 2, Group IIC
Class I, Zone 1, AEx e II (ZP, ZL, ZS/ZE, ZE-B only)

Canadian Standards Association
Ordinary Locations
Hazardous (Classified) Locations
Class I, Division 2, Groups A, B, C and D
Class II, Division 2, Groups F and G
Ex e II (ZP, ZL, ZS/ZE, ZE-B only)

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PRODUCT SPECIFICATIONS

Terminator™

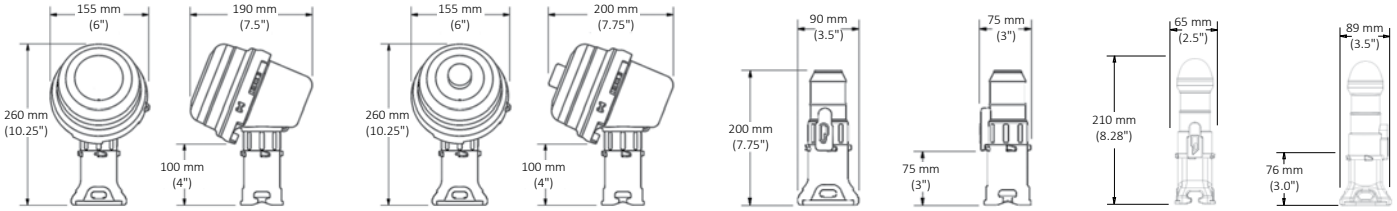
HEATING CABLE TERMINATION KITS

Terminator DP and ZP are designed to fabricate power connections, in-line/T-splice connections or for making end terminations. Electrical connections are made in terminal blocks utilizing nickel-plated copper terminals to ensure corrosion-free electrical integrity.

Terminator DL and ZL are designed to provide visual indication of an energized heating circuit. The kit may be utilized as a power connection or an end termination kit. Electrical connections are made in terminal blocks utilizing nickel-plated copper terminals to ensure corrosion-free electrical integrity.

Terminator DS/DE and ZS/ZE are designed to fabricate accessible outside-the-insulation in line splices or end terminations of Thermon Heating Cables. Electrical connections are made using wire fasteners. (For applications requiring terminations to be made with terminal block connections, the Terminator DP or ZP kit may be used.)

Terminator DE-B and ZE-B are designed to provide visual indication of an energized heating circuit. The DE-B and ZE-B utilize a high intensity green LED assembly for superior day or night visibility. Electrical connections are made using wire fasteners. (For applications requiring terminations to be made with terminal block connections, the Terminator DL or ZL kit may be used.)



	DP, ZP, ZP-MI	DP-M ZP-M	DL, ZL	DS/DE ZS/ZE	DE-B, ZE-B
Enclosure Ratings	NEMA 4X, IP66	NEMA 4X, IP66	NEMA 4X, IP66	NEMA 4X, IP66	NEMA 4X, IP66
Max. Pipe Exposure Temperature	250°C (482°F)	250°C (482°F)	250°C (482°F)	250°C (482°F)	250°C (482°F)
Min. Installation Temperature	-60°C (-76°F)	-60°C (-76°F)	-60°C (-76°F)	-60°C (-76°F)	-60°C (-76°F)
Operating Ambient Temperature	-60°C to +55°C (-76°F to +131°F)	-60°C to +55°C (-76°F to +131°F)	-60°C to +55°C (-76°F to +131°F)	-60°C to +55°C (-76°F to +131°F)	-60°C to +55°C [2] (-76°F to +131°F) [2]
Electrical Connection	Terminal Blocks[3]	Terminal Blocks[4]	Terminal Blocks[6]	Wire Fasteners	Wire Fasteners
Number of Power Connections	1 to 3 Cables	1 Cable	1 Cable[7]	n/a	n/a
Number of In-Line/T-Splices	2 to 3 Cables	2 Cables	n/a	2 Cables	n/a
Number of End Terminations	1 Cable (DP) 1 to 2 Cables (ZP) ZP-MI (NA)	1 Cable	1 Cable	1 to 2 Cables	1 Cable
Maximum Conductor Size [1]	16 mm² (6 AWG)	25 mm² (4 AWG)	16 mm² (6 AWG)	n/a	n/a
Maximum Voltage Rating	600 Vac	600 Vac	n/a	600 Vac	n/a
Maximum Rated Current [1]	50 Amps	85 Amps	50 Amps	n/a	n/a
T-rating, Ta[2] = 40°C (104°F)	T4 @ 46 Amps T6 @ 22 Amps	T4 @ 11.5 W/ft [5] T6 @ 5.2 W/ft [5]	T4 @ 46 Amps T6 @ 22 Amps	T4 @ 46 Amps T6 @ 22 Amps	T6
Indicating Lamp Service Life Rating	n/a	n/a	100,000 Hours	n/a	100,000 Hours
Indicating Lamp Operating Voltage Range	n/a	n/a	Up to 264 Vac	n/a	100 to 277 Vac

Notes

1. Alternate terminal block configurations are available, contact factory.
2. Higher ambient temperatures are possible. Consult Thermon for corresponding T-rating.
3. Terminator DP kit includes three terminal blocks (L1, L2 and G). Terminator ZP kit includes four line terminal blocks (two jumpered pairs, L1 and L2) and two ground terminal blocks (G).
4. Terminator DP-M kit includes four terminal blocks (L1, L2, L3 and G). Terminator ZP-M kit includes three line terminal blocks (L1, L2 and L3) and one ground terminal block (G).
5. T-Rating based on individual cable power output.
6. Terminator DL kit includes three terminal blocks (L1, L2 and G). Terminator ZL kit includes four line terminal blocks (two jumpered pairs, L1 and L2) and one ground terminal block (G).
7. Terminator DL kit allows up to 2 cables to be connected to power; additional TBX boots may be ordered separately.

Terminator™ ZP

Power Connection Kit

INSTALLATION PROCEDURES

For Power Connection, In-Line Splice Connection,
T-Splice Connection, or End Termination Applications



Terminator™ ZP

INSTALLATION PROCEDURES

Receiving, Storing and Handling

1. Inspect materials for damage incurred during shipping.
2. Report damages to the carrier for settlement.
3. Identify parts against the packing list to ensure the proper type and quantity has been received.
4. Store in a dry location.

Kit Contents



Item	Quantity	Description
1	1	Expediter Assembly Support Cap with O-Ring Threaded Grommet Compressor Grommet Support Base with O-Ring
2	1	Junction Box Lid
3	1	Junction Box Base with O-Ring
4	1	Nut
5	1	Banding
6	1	Banding Guide
7	1	Terminal Blocks with DIN Rail (Refer to terminal specifications for maximum allowable wire size)
8	1	Junction Box Cord

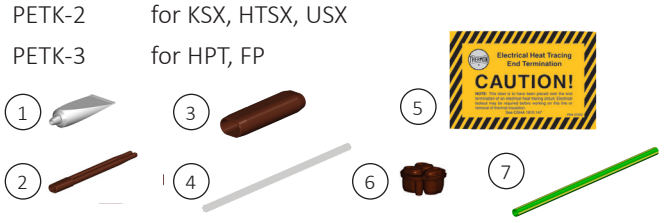
Order Separately

PETK Power and End Termination Kits (per cable)

PETK-1 for BSX, RSX, VSX-HT

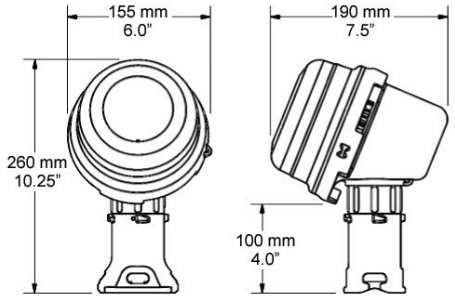
PETK-2 for KSX, HTSX, USX

PETK-3 for HPT, FP



Item	Quantity	Description
1	1	RTV Tube
2	1	Power Connection Boot
3	1	End Cap
4	1	Tape Strip 6" (PETK-3 only)
5	1	End Termination Caution Label
6	1	GRW-G Grommet (PETK-3 only)
7	1	Ground Sleeve

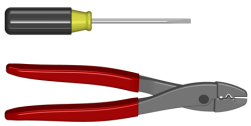
Dimensions



Installation Precautions

- To minimize the potential for arcing and fire caused by product damage or improper installation use ground-fault protection. The National Electrical Code (NEC) and Canadian Electrical Code (CEC) require ground-fault protection of equipment for each branch circuit supplying electric heat tracing.
- Installation must comply with Thermon requirements and be installed in accordance with the NEC, CEC, or any other applicable national and local codes.
- Component approvals and performance ratings are based on the use of Thermon specified parts only. User supplied power connection fittings must be listed or certified for intended use.
- Avoid electrostatic charge. Clean only with a damp cloth.
- De-energize all power sources before opening enclosure.
- Keep ends of heating cable and kit components dry before and during installation.
- Individuals installing these products are responsible for complying with all applicable safety and health guidelines. Proper personal protective equipment, or PPE, should be utilized during installation. Contact Thermon if you have any additional questions.

Tools Required

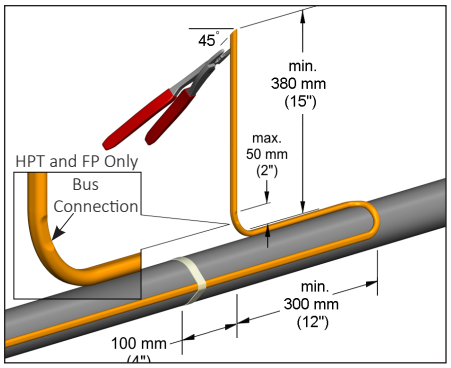


Certifications/Approvals

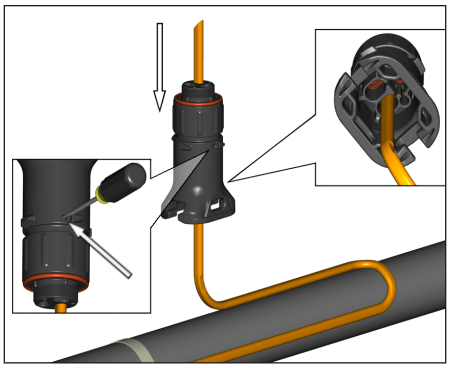
UL LISTED

FM Approved

IP66/Type 4X -60°C ≤ Ta ≤ +55°C
Ordinary & Hazardous Locations
Class I, Division 2, Groups A, B, C, & D
Class II, Division 2, Groups F & G, Class III
Class I, Zone 1, AEx eb IIC T4-T6

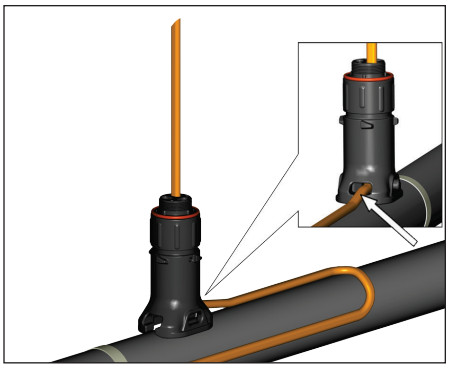


1. Locate bus connection (HPT and FP only) and cable as shown. Cut end of cable at angle to aid in piercing grommet. Leave additional cable for expansion loop. See page 5 for multiple cable installation tips.

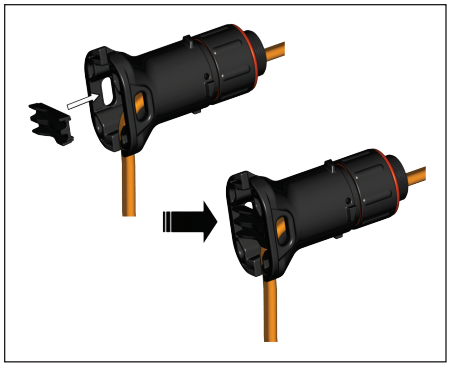


2. Insert cable into expediter. If mounted on bottom or side of pipe, punch out weep hole

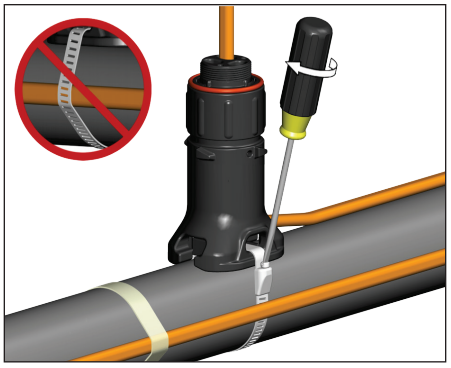
Note: For HPT and FP cable, exchange grommet in Terminator with GRW-G provided in PETK-3.



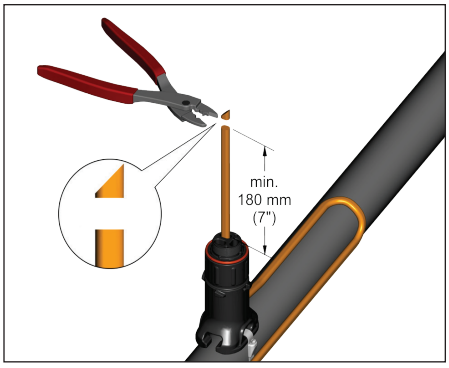
3. Slide expediter toward pipe and route cable through support base entry.



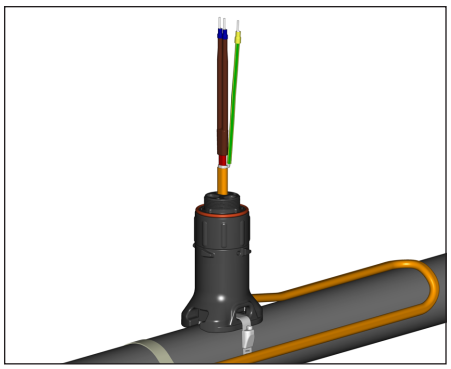
4. Insert banding guide into expediter and snap into place.



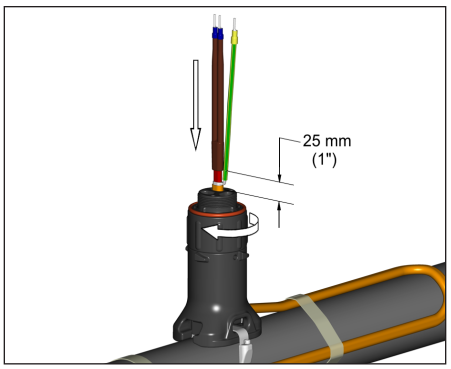
5. Mount expediter to pipe using pipe band. Do not band over cable.



6. Cut off end of cable.



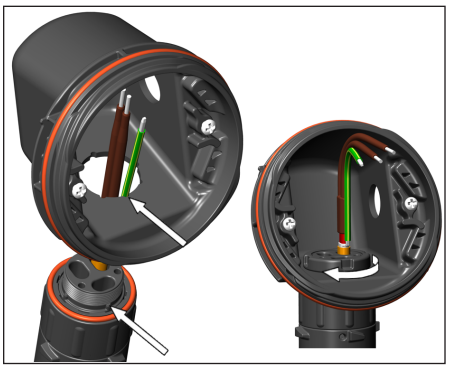
7. Terminate cable with appropriate PETK termination kit. Refer to PETK installation instructions.



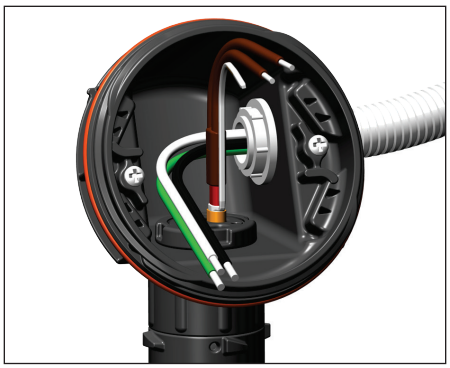
8. Push excess cable back through expediter. Tighten cap securely. Tape cable expansion loop to pipe.



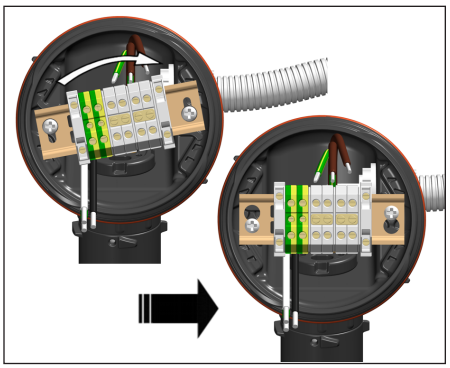
9. For power connection applications: Use dimple molded into side of junction box base to locate center of hole, drill for user supplied power connection fittings per manufacturer's recommendations.



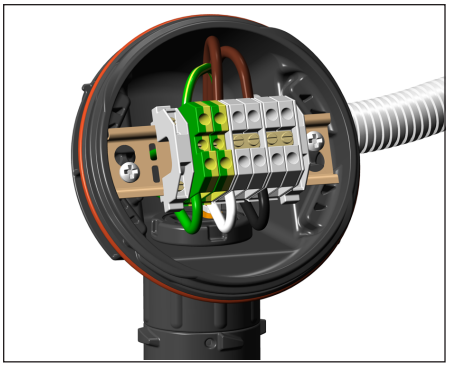
10. Mount junction box base on expediter. Make sure to align slots to properly orient junction box base. Tighten nut securely.



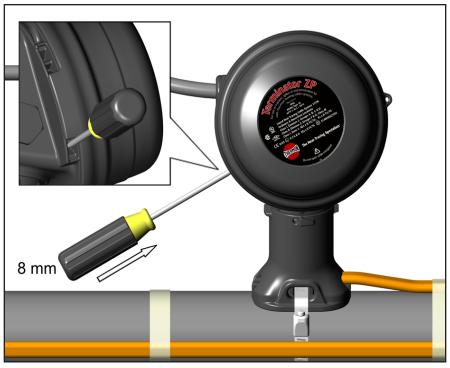
11. For power connection applications: Install power connection fittings (user supplied) and pull in power and ground wires.



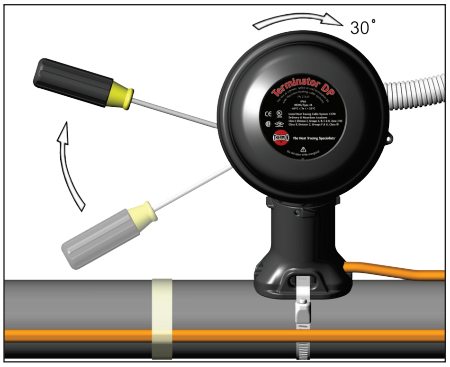
12. Install quick mount terminal blocks.



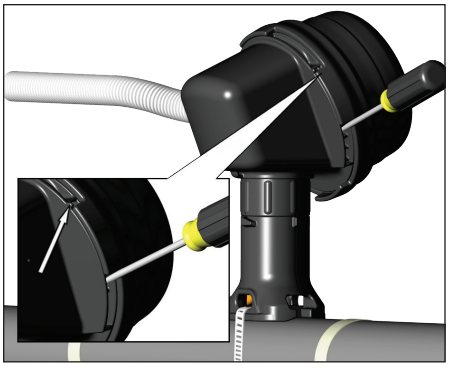
13. Complete system wiring. Refer to typical wiring details on page 5. Tightening torque 1.5 Nm–1.8 Nm (1.1 ft-lb–1.3 ft-lb).



14. Install junction box lid and twist hand tight. Insert screwdriver into ratchet slots located on side of junction box base.

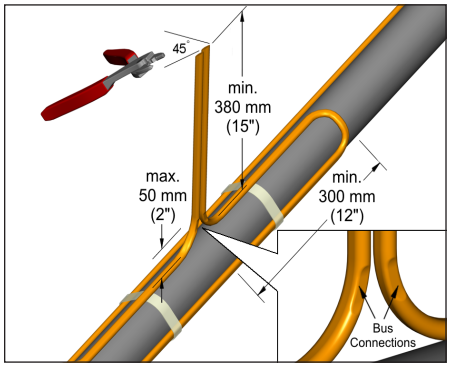


15. Use screwdriver to ratchet on junction box lid. Lid will rotate 30 degrees.

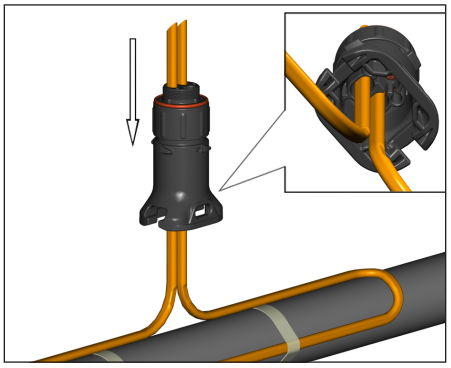


16. Lid latch mechanism fully engaged. To remove lid, repeat steps 14 and 15 but in the opposite direction.

Two Cable Layout Tips



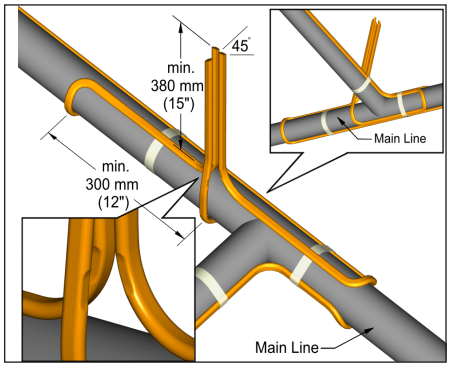
Locate bus connection (HPT and FP only) and cable as shown. Cut end of cable at angle to aid in piercing grommet. Leave additional cable for expansion loop.



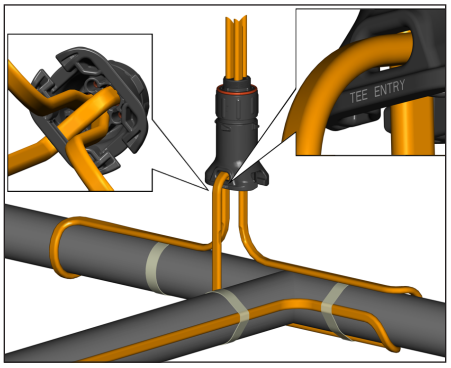
Insert two cables into expediter.

Note: For HPT and FP cable, exchange grommet in Terminator with GRW-G provided in PETK-3.

Three Cable Layout Tips

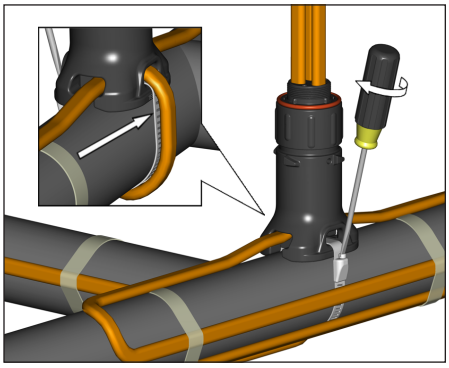


Locate bus connection (HPT and FP only) and cable as shown. Cut end of cable at angle to aid in piercing grommet. Leave additional cable for expansion loop.



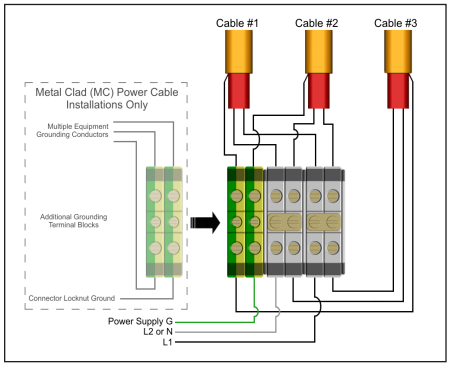
Insert three cables into expediter.

Note: For HPT and FP cable, exchange grommet in Terminator with GRW-G provided in PETK-3.

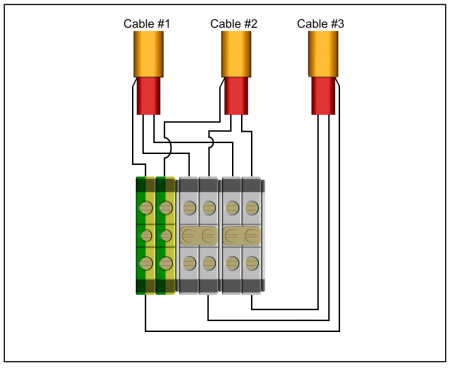


Mount expediter with three cables. Do not band over cable.

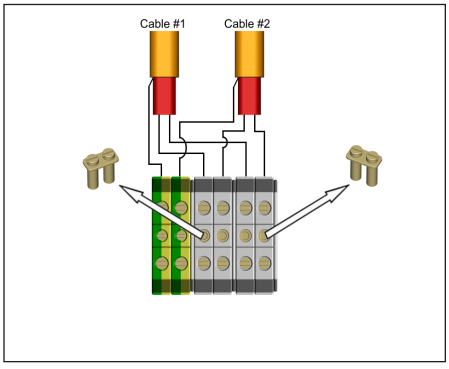
Typical Wiring Details



Power Connection (1 to 3 Cables). For 3 cable power connections, additional terminal blocks will be required when using 10mm² (#8 AWG) power supply wiring.



In-Line Splice and T-Splice



End Termination (1 to 2 Heating Cables) Remove jumpers for 2 cable terminations.



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