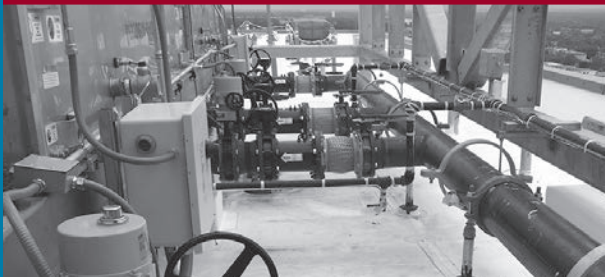
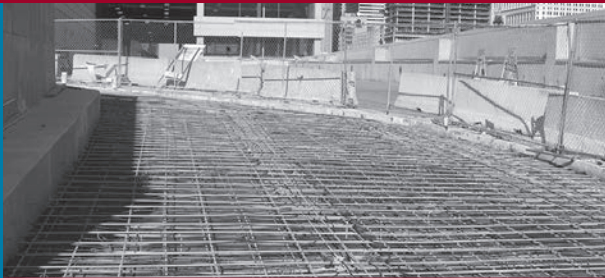




DELTA-THERM CORPORATION®

By: **INNOVAIR**
SOLUTIONS








2023 PRODUCT CATALOG





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FHM

Floor Heating Cable on Mat

Features

Voltage
120V, 240/208V, 1-phase.
Cold lead length
10' (3 m).

Construction
Heating cable made of a twin conductor fastened to an adhesive fibreglass mat for a simpler and faster installation with negligible magnetic field.

Watt density
12W/sq. ft. (130W/sq. m), 3" (76 mm) spacing.

Dimension
Mats of 18 in. (0.46 m) in width offered in several lengths.

Control
Two types of control method possible (see instruction manual for details):
Surface heating control with electronic thermostat in floor mode (F) and temperature sensor.

Ambient heating control with electronic thermostat in ambient mode with floor limit (A or AF) and temperature sensor.

Note: A ground fault circuit interrupter (GFCI) must be used with this heating device unless exempted by the applicable national and/or local electrical code for the area of installation.

Included materials
15' (4.6 m) floor sensor.
Measurements table label (to be placed in electrical panel).

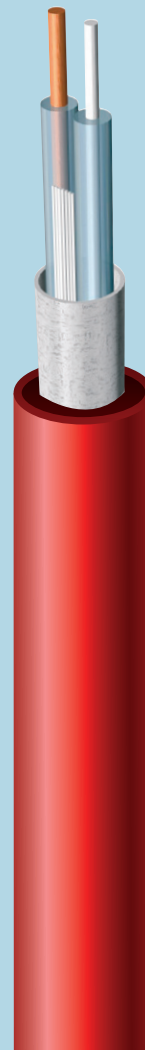
Installation
Never cut or shorten the heating cable.
For indoor applications only.

On concrete slab or plywood subfloor.

Warranty
25-year warranty on the heating cable.

Application

Kitchen, bathroom, entrance way, family room, living room.





Models

| Watts | Product # | | Cable diameter (mm) | Covered surface ¹ | | Length | | Weight | |
|-------|-------------|------------|------------------------|------------------------------|-------|---------|------|--------|-----|
| | 240/208V | 120V | | sq. ft. | sq. m | ft. in. | m | lb | kg |
| 60 | - | FHM120-60 | 3.2 | 5 | 0.5 | 3' 4" | 0.9 | 2.0 | 0.9 |
| 120 | FHM240-120 | FHM120-120 | 3.2 | 10 | 0.9 | 6' 8" | 1.8 | 2.0 | 0.9 |
| 180 | - | FHM120-180 | 3.2 | 15 | 1.4 | 10' | 3.0 | 3.0 | 1.4 |
| 240 | FHM240-240 | FHM120-240 | 3.2 | 20 | 1.9 | 13' 4" | 4 | 3.0 | 1.4 |
| 300 | - | FHM120-300 | 3.2 | 25 | 2.4 | 16' 8" | 4.9 | 4.0 | 1.8 |
| 360 | FHM240-360 | FHM120-360 | 3.2 | 30 | 2.8 | 20' | 6.1 | 4.0 | 1.8 |
| 420 | - | FHM120-420 | 3.2 | 35 | 3.3 | 23' 4" | 7 | 5.0 | 2.3 |
| 480 | FHM240-480 | FHM120-480 | 3.2 | 40 | 3.8 | 26' 8" | 7.9 | 5.0 | 2.3 |
| 540 | - | FHM120-540 | 3.2 | 45 | 4.2 | 30' | 9.2 | 6.0 | 2.7 |
| 600 | FHM240-600 | FHM120-600 | 3.2 | 50 | 4.7 | 33' 4" | 10.1 | 7.0 | 3.2 |
| 720 | FHM240-720 | FHM120-720 | 3.2 | 60 | 5.6 | 40' | 12.2 | 7.0 | 3.2 |
| 840 | FHM240-840 | FHM120-840 | 3.2 | 70 | 6.5 | 46' 8" | 14.0 | 9.0 | 4.1 |
| 960 | FHM240-960 | FHM120-960 | 3.2 | 80 | 7.4 | 53' 4" | 16.2 | 10.0 | 4.5 |
| 1080 | FHM240-1080 | - | 3.2 | 90 | 8.4 | 60' | 18.3 | 11.0 | 5.0 |
| 1200 | FHM240-1200 | - | 3.2 | 100 | 9.3 | 66' 8" | 20.1 | 11.0 | 5.0 |
| 1440 | FHM240-1440 | - | 3.2 | 120 | 11.2 | 80' | 24.4 | 13.0 | 5.9 |

¹ Does not represent the surface of the room but rather the surface covered by the floor heating system, excluding the fixtures and other spaces to consider.

208V = 75% of wattage at 240V.

15' (4.6 m) floor sensor and 10' (3 m) cold lead included.

The color of the mesh may be different.

Options

| Product # Kit | Description |
|------------------|---|
| OTM-CC | CableCheck - Electrical fault indicator |
| OTM-SA | Adhesive spray to secure the mat on concrete slab, 16.75 oz (474 g) |
| KIT-SP1 | Repair kit |
| KIT-CBL-SN | 15 ft. (4.6 m) floor sensor |



DTR

Floor Heating Cable for Membrane

Features

Voltage

- 120V, 240/208V, 1-phase.

Cold lead length

- 10' (3 m).

Construction

- Heating cable made of a twin conductor for a simpler and faster installation, compatible with uncoupling membrane systems.

Watt density

- 9W/sq. ft. (97W/sq. m), 4" (102 mm) spacing.

- 10W/sq. ft. (108W/sq. m), 3 5/8" (92 mm) spacing.

Control

- Two types of control method possible (see instruction manual for details):

- Surface heating control with electronic thermostat in floor mode (F) and temperature sensor.
- Ambient heating control with electronic thermostat in ambient mode with floor limit (A or AF) and temperature sensor.

Note: A ground fault circuit interrupter (GFCI) must be used with this heating device unless exempted by the applicable national and/or local electrical code for the area of installation.

Included materials

- 15' (4.6 m) floor sensor.

- Measurements table label (to be placed in electrical panel).

Installation

- Never cut or shorten the heating cable.
- For indoor applications only.
- On concrete slab or plywood subfloor.
- On uncoupling membrane sold in option.
- For heating cable installation on uncoupling membrane systems, consult the membrane manufacturer's instructions to ensure that it is compatible with the use of heating cables.

Warranty

- 25-year warranty on the heating cable.

Application

- Kitchen, bathroom, entrance way, family room, living room.





Models

| Watts | Product # 240/208V | Product # 120V | Cable diameter (mm) | Covered surface depending on spacing ¹ | | | | Length | | Weight | |
|-------|-----------------------|-------------------|---------------------|---|------------|----------------|------------|--------|--------|--------|------|
| | | | | 3 1/2" (88 mm) ² | | 3 3/4" (95 mm) | | ft. | m | lb | kg |
| | | | | 10W/sq. ft. | 108W/sq. m | 9.6W/sq. ft. | 103W/sq. m | | | | |
| 85 | - | DTR0082 | 4.3 | 9.5 | 0.9 | 10.0 | 0.9 | 32 | 9.75 | 2.6 | 0.9 |
| 120 | - | DTR0122 | 4.3 | 12.0 | 1.1 | 12.5 | 1.2 | 40 | 12.19 | 2.6 | 0.9 |
| 150 | - | DTR0152 | 4.3 | 16.0 | 1.5 | 16.5 | 1.5 | 53 | 16.15 | 3.1 | 1.4 |
| 170 | DTR0170 | DTR0172 | 4.3 | 18.5 | 1.7 | 19.0 | 1.8 | 61 | 18.59 | 3.1 | 1.4 |
| 240 | DTR0240 | DTR0242 | 4.3 | 24.0 | 2.2 | 25.0 | 2.3 | 80 | 24.38 | 3.8 | 1.6 |
| 300 | DTR0300 | DTR0302 | 4.3 | 30.5 | 2.8 | 31.5 | 2.9 | 101 | 30.78 | 4 | 1.8 |
| 360 | DTR0360 | DTR0362 | 4.3 | 36.5 | 3.4 | 37.5 | 3.5 | 120 | 36.58 | 4.2 | 1.9 |
| 420 | DTR0420 | DTR0422 | 4.3 | 42.5 | 4.0 | 44.0 | 4.1 | 141 | 42.98 | 4.9 | 2.2 |
| 475 | DTR0475 | DTR0472 | 4.3 | 48.5 | 4.5 | 50.0 | 4.6 | 160 | 48.77 | 6 | 2.7 |
| 600 | DTR0600 | DTR0602 | 4.3 | 60.5 | 5.6 | 62.5 | 5.8 | 200 | 60.96 | 6.9 | 3.1 |
| 720 | DTR0720 | DTR0722 | 4.3 | 72.5 | 6.7 | 75.0 | 7.0 | 240 | 73.15 | 7.9 | 3.6 |
| 840 | DTR0840 | DTR0842 | 4.3 | 84.5 | 7.9 | 87.5 | 8.1 | 280 | 85.34 | 8.7 | 4 |
| 960 | DTR0960 | DTR0962 | 4.3 | 96.5 | 9.0 | 100.0 | 9.3 | 320 | 97.54 | 9.3 | 4.2 |
| 1080 | DTR1080 | - | 4.3 | 109.0 | 10.1 | 112.5 | 10.5 | 360 | 109.73 | 10 | 4.6 |
| 1140 | - | DTR1142 | 4.3 | 115 | 10.66 | 119 | 11.03 | 380 | 115.82 | 11.6 | 5.2 |
| 1200 | DTR1200 | - | 4.3 | 121.0 | 11.2 | 125.0 | 11.6 | 400 | 121.92 | 11 | 5 |
| 1320 | - | DTR1322 | 4.3 | 133 | 12.35 | 137.5 | 12.77 | 440 | 134.11 | 13.7 | 6.2 |
| 1440 | DTR1440 | - | 4.3 | 145.0 | 13.5 | 150.0 | 13.9 | 480 | 146.30 | 13 | 5.9 |
| 1450 | - | DTR1452 | 4.3 | 145 | 13.5 | 150 | 13.9 | 480 | 146.30 | 16 | 7.2 |
| 1500 | - | DTR1502 | 4.3 | 151 | 14 | 156.5 | 14.5 | 500 | 152.40 | 17.4 | 7.9 |
| 1600 | DTR1600 | - | 4.3 | 169.0 | 15.7 | 175.0 | 16.3 | 560 | 170.69 | 15 | 6.8 |
| 1680 | - | DTR1682 | 4.3 | 169.5 | 15.7 | 175 | 16.3 | 560 | 170.69 | 20.3 | 9.1 |
| 1920 | DTR1920 | - | 4.3 | 193.5 | 18.0 | 200.0 | 18.6 | 640 | 195.07 | 18 | 8.2 |
| 2280 | DTR2280 | - | 4.3 | 229.5 | 21.3 | 237.5 | 22.1 | 760 | 231.65 | 22 | 10 |
| 2640 | DTR2640 | - | 4.3 | 266.0 | 24.7 | 275.0 | 25.5 | 880 | 268.22 | 26 | 11.8 |
| 2900 | DTR2900 | - | 4.3 | 292.5 | 27.2 | 302.5 | 28.1 | 968 | 295.04 | 30 | 13.6 |
| 3000 | DTR3000 | - | 4.3 | 302.0 | 28.1 | 312.5 | 29.0 | 1000 | 304.80 | 31 | 14 |
| 3360 | DTR3360 | - | 4.3 | 338.5 | 31.4 | 350 | 32.5 | 1120 | 341.38 | 36.9 | 16.8 |

¹ Does not represent the surface of the room but rather the surface covered by the floor heating system, excluding fixtures and other spaces to consider.

² Spacing with the NADCM membrane when the cable is installed with 3 spacing castellations.

208V = 75% of wattage at 240V.

15' (4.6 m) floor sensor and 10' (3 m) cold lead included.

Options

| Product # Kit | Description |
|------------------|--|
| NADCM-M-80 | Fleeceback uncoupling membrane in sheet, 2' 6-5/16" X 3' 3", 8.16 sq. ft., sold in box of 10 sheets |
| NADCM-M-150 | Fleeceback uncoupling membrane in roll, 46' 9" x 3' 3", 150 sq. ft. |
| NADCM-S-80 | Self-adhesive uncoupling membrane in sheet, 2' 6-5/16" X 3' 3", 8.16 sq. ft., sold in box of 10 sheets |
| NADCM-S-150 | Self-adhesive uncoupling membrane in roll, 46' 9" x 3' 3", 150 sq. ft. |
| OTM-CC | CableCheck - Electrical fault indicator |
| OTM-SA | Adhesive spray to secure the mat on concrete slab, 16.75 oz (474 g) |
| KIT-SP1 | Repair kit |
| KIT-CBL-SN | 15 ft. (4.6 m) floor sensor |



DWF-R

Floor Heating Cable for Installation with Strapping

Features

Voltage

- 120V, 240/208V, 1-phase.

Cold lead length

- 10' (3 m).

Construction

- Heating cable made of a twin conductor for a simpler and faster installation, compatible with uncoupling membrane systems.

Watt density

- 12W/sq. ft. (130W/sq. m), 3" (76 mm) spacing.
- 9W/sq. ft. (100W/sq. m), 4" (102 mm) spacing

Control

- Two types of control method possible (see instruction manual for details):
 - Surface heating control with electronic thermostat in floor mode (F) and temperature sensor.
 - Ambient heating control with electronic thermostat in ambient mode with floor limit (A or AF) and temperature sensor.

Note: A ground fault circuit interrupter (GFCI) must be used with this heating device unless exempted by the applicable national and/or local electrical code for the area of installation.

Included materials

- Plastic strapping.
- 15' (4.6 m) floor sensor.

Installation

- Never cut or shorten the heating cable.
- For indoor applications only.
- On concrete slab or plywood subfloor.

Warranty

- 25-year warranty on the heating cable.

Application

- Kitchen, bathroom, entrance way, family room, living room.





Models

| Watts | Product # 240/208V | Strapping included ¹ | | Cable diameter (mm) | Covered surface depending on spacing ² | | | | Length | | Strapping length included (ft.) |
|-------|-----------------------|---------------------------------|--|---------------------------|---|------------|---------------------|------------|--------|--------|--|
| | | Product # 120V | | | Spacing 3" (76 mm) | | Spacing 4" (102 mm) | | ft. | m | |
| | | | | | 12W/sq. ft. | 130W/sq. m | 9W/sq. ft. | 100W/sq. m | | | |
| 85 | - | DWF-R0082 | | 4.3 | 8 | 0.7 | 11 | 1.0 | 32 | 9.75 | 25 |
| 120 | - | DWF-R0122 | | 4.3 | 10 | 0.9 | 13 | 1.2 | 40 | 12.19 | 25 |
| 150 | - | DWF-R0152 | | 4.3 | 13 | 1.2 | 17 | 1.6 | 53 | 16.15 | 25 |
| 170 | DWF-R0170 | DWF-R0172 | | 4.3 | 15 | 1.4 | 20 | 1.9 | 61 | 18.59 | 25 |
| 240 | DWF-R0240 | DWF-R0242 | | 4.3 | 20 | 1.9 | 27 | 2.5 | 80 | 24.38 | 25 |
| 300 | DWF-R0300 | DWF-R0302 | | 4.3 | 25 | 2.3 | 33 | 3.1 | 101 | 30.78 | 25 |
| 360 | DWF-R0360 | DWF-R0362 | | 4.3 | 30 | 2.8 | 40 | 3.7 | 120 | 36.58 | 50 |
| 420 | DWF-R0420 | DWF-R0422 | | 4.3 | 35 | 3.3 | 47 | 4.3 | 141 | 42.98 | 50 |
| 475 | DWF-R0475 | DWF-R0472 | | 4.3 | 40 | 3.7 | 53 | 5.0 | 160 | 48.76 | 50 |
| 600 | DWF-R0600 | DWF-R0602 | | 4.3 | 50 | 4.6 | 67 | 6.2 | 200 | 60.96 | 50 |
| 720 | DWF-R0720 | DWF-R0722 | | 4.3 | 60 | 5.6 | 80 | 7.4 | 240 | 73.15 | 75 |
| 840 | DWF-R0840 | DWF-R0842 | | 4.3 | 70 | 6.5 | 93 | 8.7 | 280 | 85.34 | 75 |
| 960 | DWF-R0960 | DWF-R0962 | | 4.3 | 80 | 7.4 | 107 | 9.9 | 320 | 97.54 | 75 |
| 1080 | DWF-R1080 | - | | 4.3 | 90 | 8.4 | 120 | 11.2 | 360 | 109.73 | 100 |
| 1140 | - | DWF-R1142 | | 4.3 | 95 | 8.8 | 127 | 11.7 | 380 | 115.82 | 100 |
| 1200 | DWF-R1200 | - | | 4.3 | 100 | 9.3 | 133 | 12.4 | 400 | 121.92 | 100 |
| 1320 | - | DWF-R1322 | | 4.3 | 110 | 10.2 | 147 | 13.6 | 440 | 134.11 | 100 |
| 1440 | DWF-R1440 | - | | 4.3 | 120 | 11.1 | 160 | 14.9 | 480 | 146.30 | 100 |
| 1450 | - | DWF-R1452 | | 4.3 | 120 | 11.1 | 160 | 14.8 | 480 | 146.30 | 100 |
| 1500 | - | DWF-R1502 | | 4.3 | 125 | 11.6 | 167 | 15.5 | 500 | 152.40 | 125 |
| 1600 | DWF-R1600 | - | | 4.3 | 140 | 13.0 | 187 | 17.4 | 560 | 170.69 | 125 |
| 1680 | - | DWF-R1682 | | 4.3 | 140 | 13.0 | 187 | 17.4 | 560 | 170.69 | 125 |
| 1920 | DWF-R1920 | - | | 4.3 | 160 | 14.9 | 213 | 19.8 | 640 | 195.07 | 125 |
| 2280 | DWF-R2280 | - | | 4.3 | 190 | 17.7 | 253 | 23.6 | 760 | 231.64 | 150 |
| 2640 | DWF-R2640 | - | | 4.3 | 220 | 20.4 | 293 | 27.2 | 880 | 268.22 | 200 |
| 2900 | DWF-R2900 | - | | 4.3 | 242 | 22.5 | 323 | 30.0 | 968 | 295.04 | 200 |
| 3000 | DWF-R3000 | - | | 4.3 | 250 | 23.2 | 333 | 30.9 | 1000 | 304.80 | 200 |
| 3360 | DWF-R3360 | - | | 4.3 | 280 | 26.0 | 374 | 34.7 | 1120 | 341.38 | 200 |

¹ Strapping included. The length of plastic strapping included is based on a square room with strapping every 24" (610 mm).

² Does not represent the surface of the room but rather the surface covered by the floor heating system, excluding fixtures and other spaces to consider. 15' (4.6 m) floor sensor and 10' (3 m) cold lead included.

Options

| Product # Kit | Description |
|------------------|---|
| OTM-CC | CableCheck - Electrical fault indicator |
| KIT-SP1 | Repair kit |
| KIT-CBL-G25 | 25 ft. (7.6 m) plastic strapping |
| KIT-CBL-SN | 15 ft. (4.6 m) floor sensor |



DWC-M

Heating Cable for Concrete on Mat

Features

Voltage

- 240/208V 1-phase.

Construction

- Twin conductor heating cable attached to a plastic mat with negligible magnetic field.

Watt density

- 11W/sq. ft. (120W/sq. m), factory installed on mat at 6" (15 cm) spacing.

Dimension

- 24" (0.6 m) wide mat available in several lengths.

Cold lead length

- 8' 2" (2.5 m) cold lead included.
- Optional 50' (15 m) cold lead available upon request.

Control

- Two types of control method possible (see instruction manual for details):
 - Surface heating control with electronic thermostat in floor mode (F) and temperature sensor.
 - Ambient heating control with electronic thermostat in ambient mode with floor limit (A or AF) and temperature sensor.

Note: A ground fault circuit interrupter (GFCI) must be used with this heating device unless exempted by the applicable national and/or local electrical code for the area of installation.

Included materials

- 15' (4.6 m) temperature sensor.
- Plastic floor fasteners (KIT-WC-CLP).
- Measurement table label (to be placed in for electrical panel).

Installation

- **Never cut or shorten the heating cable.**
- For indoor applications only, residential or commercial.
- Installs under a 4" to 6" (10 cm to 15 cm) concrete slab or under a 1.5" to 4" concrete topping (4 cm to 10 cm).

Note: It's highly recommended to insulate the concrete slab in order to avoid heat loss from below (see instruction manual for all installation details).

- Compatible with most floor coverings (check with the dealer or manufacturer).
- Installation with or without metallic structure for reinforced concrete.

Warranty

- 20-year warranty on the heating cable.

Application

- Basement, garage, bathroom, kitchen, family room, workshop, pool, shower, entrance way, hospital, hotel, factory, business, restaurant, sunroom, greenhouse, buildings used for housing animals.





Models

| Watts | Product # 240/208V | Covered surface ¹ | | Length | | Weight | |
|-------|-----------------------|------------------------------|-------|---------|------|--------|------|
| | | sq. ft. | sq. m | ft. in. | m | lb | kg |
| 150 | DWC-M0150 | 14.0 | 1.3 | 6' 5" | 1.9 | 3.0 | 1.4 |
| 200 | DWC-M0200 | 19.0 | 1.7 | 8' 4" | 2.5 | 3.7 | 1.7 |
| 300 | DWC-M0300 | 28.0 | 2.6 | 12' 6" | 3.8 | 4.0 | 1.8 |
| 400 | DWC-M0400 | 38.0 | 3.5 | 16' 8" | 5.1 | 4.5 | 2.0 |
| 500 | DWC-M0500 | 46.5 | 4.3 | 20' 10" | 6.4 | 5.0 | 2.3 |
| 600 | DWC-M0600 | 56.0 | 5.2 | 25' | 7.6 | 6.0 | 2.7 |
| 700 | DWC-M0700 | 65.5 | 6.1 | 29' 2" | 8.9 | 7.0 | 3.1 |
| 850 | DWC-M0850 | 80.0 | 7.4 | 35' 5" | 10.8 | 8.0 | 3.6 |
| 950 | DWC-M0950 | 89.0 | 8.3 | 39' 7" | 12.1 | 9.0 | 4.0 |
| 1100 | DWC-M1100 | 103.0 | 9.6 | 45' 10" | 14.0 | 10.0 | 4.5 |
| 1200 | DWC-M1200 | 113.0 | 10.5 | 50' | 15.2 | 11.0 | 5.0 |
| 1300 | DWC-M1300 | 121.5 | 11.3 | 54' 2" | 16.5 | 12.0 | 5.4 |
| 1400 | DWC-M1400 | 130.5 | 12.1 | 58' 4" | 17.8 | 13.0 | 6.0 |
| 1500 | DWC-M1500 | 140.5 | 13.1 | 62' 6" | 19.1 | 14.0 | 6.4 |
| 1600 | DWC-M1600 | 149.5 | 13.9 | 66' 8" | 20.3 | 15.0 | 6.8 |
| 1700 | DWC-M1700 | 159.0 | 14.8 | 70' 10" | 21.6 | 16.0 | 7.2 |
| 1850 | DWC-M1850 | 172.5 | 16.0 | 77' 1" | 23.5 | 17.0 | 7.8 |
| 2000 | DWC-M2000 | 187.5 | 17.4 | 83' 4" | 25.4 | 18.0 | 8.1 |
| 2200 | DWC-M2200 | 206.0 | 19.1 | 91' 6" | 27.9 | 21.0 | 9.5 |
| 2400 | DWC-M2400 | 225.0 | 20.9 | 100' | 30.5 | 23.0 | 10.4 |
| 2550 | DWC-M2550 | 239.0 | 22.2 | 106' 6" | 32.5 | 25.0 | 11.3 |
| 2700 | DWC-M2700 | 253.0 | 23.5 | 112' 6" | 34.3 | 28.0 | 12.7 |
| 2850 | DWC-M2850 | 267.0 | 24.8 | 119' | 36.3 | 30.0 | 13.6 |
| 3000 | DWC-M3000 | 281.0 | 26.1 | 125' | 38.1 | 32.0 | 14.5 |
| 3200 | DWC-M3200 | 300.0 | 27.9 | 133' 6" | 40.7 | 34.0 | 15.4 |
| 3400 | DWC-M3400 | 318.5 | 29.6 | 141' 8" | 43.2 | 36.0 | 16.3 |
| 3600 | DWC-M3600 | 336.0 | 31.2 | 150' | 45.7 | 38.0 | 17.2 |

¹ Does not represent the room surface but rather the area covered by the cable mat including 3" (7.5 cm) spacing between the mat strips but excluding fixed elements to be bypassed and any other required clearances.
208V = 75% of wattage at 240V.

Options

| Product # Kit | Product # Factory installed* | Description |
|---------------------|---------------------------------|--|
| OTM-CC ¹ | - | CableCheck – Electrical indicator |
| KIT-WC-CLP | - | Bag of 50 plastic floor fasteners for heating cable on mat |
| KIT-SP2 | - | Repair kit |
| KIT-CBL-SN | - | 15 ft. (4.6 m) floor sensor |
| - | 50 ² | Optional 50' (15 m) cold lead |

* For factory installed options, add the option number to the product number.

¹ With any DWC order, the accessory OTM-CC can be added free of charge upon customer request.

² Made to order only. Allow additional 9 to 12 weeks lead time.



DWC-R

Heating Cable for Concrete in Reel

Features

Voltage

- 240/208V 1-phase.

Construction

- Twin conductor heating cable with negligible magnetic field.

Watt density

- 11W/sq. ft. (120W/sq. m), recommended installation - 6" (15 cm) spacing.

Cold lead length

- 8' 2" (2.5 m) cold lead included.
- Optional 50' (15 m) cold lead available upon request.

Control

- Two types of control method possible (see instruction manual for details):
 - Surface heating control with electronic thermostat in floor mode (F) and temperature sensor.
 - Ambient heating control with electronic thermostat in ambient mode with floor limit (A or AF) and temperature sensor.

Note: A ground fault circuit interrupter (GFCI) must be used with this heating device unless exempted by the applicable national and/or local electrical code for the area of installation.

Included materials

- 15' (4.6 m) temperature sensor.
- Plastic tie-wraps.
- Measurement table label (to be placed in for electrical panel).

Installation

- **Never cut or shorten the heating cable.**
- For indoor applications only, residential or commercial.
- Installs under a 4" to 6" (10 cm to 15 cm) concrete slab or under a 1 1/2" to 4" concrete topping (4 cm to 10 cm).

Note: It's highly recommended to insulate the concrete slab in order to avoid heat loss from below (see instruction manual for all installation details).

- Requires a metallic structure or wire mesh for reinforced concrete with spacing of 6" (15 cm) for the installation.
- Compatible with most floor coverings (check with the dealer or manufacturer).

Warranty

- 20-year warranty on the heating cable.

Application

- Basement, garage, bathroom, kitchen, family room, workshop, pool, shower, entrance way, hospital, hotel, factory, business, restaurant, sunroom, greenhouse, buildings used for housing animals.





Models

| Watts | Product # 240/208V | Covered surface ¹ Spacing 6" (15 cm) | | Cable length | | Weight | |
|-------|------------------------|--|-------|--------------|--------|--------|------|
| | | sq. ft. | sq. m | ft. | m | lb | kg |
| 300 | DWC-R0300 | 28.0 | 2.6 | 56 | 17.07 | 4.0 | 1.8 |
| 500 | DWC-R0500 | 46.5 | 4.3 | 93 | 28.35 | 5.0 | 2.3 |
| 700 | DWC-R0700 | 62.5 | 5.8 | 125 | 38.10 | 7.0 | 3.1 |
| 950 | DWC-R0950 | 88.0 | 8.2 | 176 | 53.64 | 9.0 | 4.0 |
| 1300 | DWC-R1300 | 125.0 | 11.6 | 250 | 76.20 | 12.0 | 5.4 |
| 1700 | DWC-R1700 | 156.0 | 14.5 | 312 | 95.10 | 16.0 | 7.2 |
| 2000 | DWC-R2000 | 187.0 | 17.4 | 374 | 114.00 | 18.0 | 8.1 |
| 2400 | DWC-R2400 | 218.5 | 20.3 | 437 | 133.20 | 23.0 | 10.4 |
| 3000 | DWC-R3000 | 279.5 | 26.0 | 559 | 170.38 | 32.0 | 14.5 |
| 3400 | DWC-R3400 | 312.5 | 29.03 | 625 | 190.50 | 36.0 | 16.3 |
| 3700 | DWC-R3700 ² | 341.0 | 31.7 | 682 | 207.87 | 39.0 | 17.7 |
| 4000 | DWC-R4000 ² | 372.5 | 34.6 | 745 | 227.08 | 42.0 | 19.0 |

¹ Does not represent the room surface but rather the area covered by the cable while leaving a 6" (15 cm) spacing between cables and excluding fixed elements to be bypassed and any other clearance required.

² Not compatible with a floor heating thermostat rated for 15A and less. Requires relay with low voltage thermostat.

208V = 75% of wattage at 240V.

Options

| Product # Kit | Product # Factory installed* | Description |
|---------------------|---------------------------------|-----------------------------------|
| OTM-CC ¹ | - | CableCheck – Electrical indicator |
| KIT-SP2 | - | Repair kit |
| KIT-CBL-SN | - | 15 ft. (4.6 m) floor sensor |
| - | 50 ² | Optional 50' (15 m) cold lead |

* For factory installed options, add the option number to the product number.

¹ With any DWC order, the accessory OTM-CC can be added free of charge upon customer request.

² Made to order only. Allow additional 9 to 12 weeks lead time.



DWS-T

Heating Cable for Snow Melting on Mat

Features

Voltage

- 208V and 240V, 1-phase.

Construction

- Series heating cable set, twin conductor type.
- Heating cable held as a mat at regular 3" (76 mm) spacing with flexible strips.
- Fluoropolymer/XLPE resistance wire insulation 0.019" (0.5 mm) thick.
- Copper shielding (0.823 sq. mm) serves as ground.
- Polyolefin (EPR) outer sheath insulation 0.08" (2 mm) thick.

Watt density

- 50W/sq. ft. (538W/sq. m) at 208V and 240V, 3" (76 mm) spacing.

Dimension

- 24" (610 mm) and 36" (914 mm) wide mats offered in several lengths.

Cold lead

- 50' (15 m) long.
- Optional 100' (30 m) cold lead available upon request.
- 12 AWG or 14 AWG (according to maximum allowable load).
- PVC outer sheath insulation 0.03" (0.76 mm) thick.
- 3/8" (9.5 mm) outer diameter.

Included materials

- Measurements table label (to be placed in electrical panel).

Installation

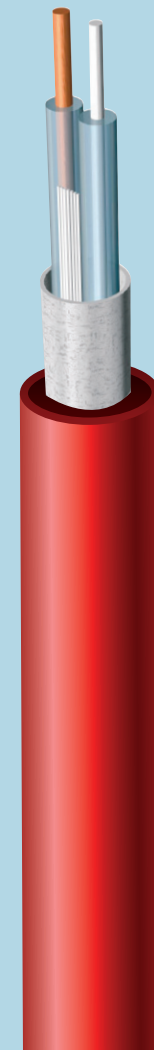
- **Never cut or shorten the heating cable.**
- For outdoor applications only.
- The heating cable must be completely embedded in concrete, asphalt or stone dust under paving.
- Minimum installation temperature -5 °C (23 °F).
- Maximum long-term exposure temperature 105 °C (221 °F).
- Maximum exposure temperature for 10 minutes 220 °C (428 °F).

Warranty

- 10-year warranty on heating cable.

Application

- Residential driveway, sidewalk, access ramp, underground parking ramp, boarding platforms for animals.





24 in. (610 mm) Wide Models

| Watts | Product # 208V | Product # 240V | Amp. | Covered surface ¹ | | Mat length | | Cable length ² | | Weight | |
|-------|-------------------|-------------------|-------|------------------------------|-------|------------|------|---------------------------|-------|--------|------|
| | | | | sq. ft. | sq. m | ft. | m | ft. | m | lb | kg |
| 500 | DWS-T0508-24 | DWS-T0500-24 | 2.08 | 11.0 | 1.0 | 5 | 1.5 | 43 | 13.1 | 3.0 | 1.4 |
| 1000 | DWS-T1008-24 | DWS-T1000-24 | 4.17 | 22.0 | 2.0 | 10 | 3.0 | 86 | 26.2 | 5.0 | 2.3 |
| 1500 | DWS-T1508-24 | DWS-T1500-24 | 6.25 | 32.5 | 3.0 | 15 | 4.6 | 128 | 39.0 | 7.0 | 3.2 |
| 2000 | DWS-T2008-24 | DWS-T2000-24 | 8.33 | 43.5 | 4.0 | 20 | 6.1 | 171 | 52.1 | 10.0 | 4.5 |
| 2500 | DWS-T2508-24 | DWS-T2500-24 | 10.42 | 54.0 | 5.0 | 25 | 7.6 | 214 | 65.2 | 12.5 | 5.7 |
| 3000 | DWS-T3008-24 | DWS-T3000-24 | 12.50 | 65.0 | 6.0 | 30 | 9.1 | 257 | 78.4 | 15.0 | 6.8 |
| 4000 | DWS-T4008-24 | DWS-T4000-24 | 16.67 | 86.5 | 8.1 | 40 | 12.2 | 342 | 104.3 | 20.0 | 9.1 |
| 5000 | DWS-T5008-24 | DWS-T5000-24 | 20.83 | 108.5 | 10.1 | 50 | 15.2 | 428 | 130.5 | 25.0 | 11.4 |
| 6000 | - | DWS-T6000-24 | 25.00 | 130.0 | 12.1 | 60 | 18.3 | 513 | 156.4 | 30.0 | 13.6 |

36 in. (914 mm) Wide Models

| Watts | Product # 208V | Product # 240V | Amp. | Covered surface ¹ | | Mat length | | Cable length ² | | Weight | |
|-------|-------------------|-------------------|-------|------------------------------|-------|------------|------|---------------------------|-------|--------|------|
| | | | | sq. ft. | sq. m | ft. | m | ft. | m | lb | kg |
| 450 | DWS-T0458-36 | DWS-T0450-36 | 1.88 | 9.5 | 0.9 | 3 | 0.9 | 38 | 11.6 | 2.5 | 1.1 |
| 750 | DWS-T0758-36 | DWS-T0750-36 | 3.13 | 16.0 | 1.5 | 5 | 1.5 | 63 | 19.2 | 3.5 | 1.6 |
| 1050 | DWS-T1058-36 | DWS-T1050-36 | 4.38 | 22.0 | 2.0 | 7 | 2.1 | 88 | 26.8 | 5.0 | 2.3 |
| 1500 | DWS-T1508-36 | DWS-T1500-36 | 6.25 | 31.5 | 2.9 | 10 | 3.0 | 126 | 38.4 | 8.0 | 3.6 |
| 3000 | DWS-T3008-36 | DWS-T3000-36 | 12.50 | 63.5 | 5.9 | 20 | 6.1 | 251 | 76.5 | 15.0 | 6.8 |
| 4500 | DWS-T4508-36 | DWS-T4500-36 | 18.75 | 95.0 | 8.8 | 30 | 9.1 | 377 | 114.9 | 22.5 | 10.2 |
| 6000 | - | DWS-T6000-36 | 25.00 | 126.5 | 11.8 | 40 | 12.2 | 502 | 153.0 | 30.0 | 13.6 |

¹ Represents the area covered by the mat including 3" (76 mm) spacing between the mat strips but excluding fixed elements to be bypassed and any other required clearances.

² Represents the total length of the heating cable if it is detached from the flexible strips.

Installation Options

| Product # Kit | Product # Factory installed* | Description |
|-----------------------|---------------------------------|--|
| OTM-CC ¹ | - | CableCheck – Electrical indicator |
| BRIPPS-75 | - | 75 ft. (23 m) galvanized steel cable clip strip for installation |
| KIT-SP2 | - | Repair kit |
| SM-PLATE ² | - | Brass marker for embedded electrical heating system |
| - | 100 ³ | Optional 100' (30 m) cold lead |

* For factory installed options, add the option number to the product number.

¹ With any DWS-T order, the accessory OTM-CC can be added free of charge upon customer request.

² In compliance with the National Electrical Code (NEC) 426.13 Identification.

³ Made to order only. Allow additional 9 to 12 weeks lead time.



TXLP1

Single Conductor Series Resistance Custom Cable Assembly for Snow Melting and De-icing Applications

Features

Voltage

- 120V to 600V (max).

Cold lead

- Standard length 15 ft. (4.57 m).
- Longer lengths available (See Options table).

Cable diameter

- 6 mm to 6.5 mm (See Models table for details).

Bending radius, minimum

- 5x cable diameter.

Maximum operating temperature

- 65 °C (149 °F).

Construction

- Stranded resistance heating wire with XLPE insulation, tinned copper grounding conductor, aluminum sheath, and PVC outer jacket.

Warranty

- 10-year limited warranty on the resistance cable.

Controls

- The slab temperature must be monitored and controlled.
- Requires a ground fault circuit-interrupter (GFCI).

Made to order product, to obtain a quote please contact factory.





TXLP1

Single Conductor Series Resistance Custom Cable Assembly for Snow Melting and De-icing Applications



Models

| Cable family | Cable reference # | Resistance (Ohms) per metre | Cable outer diameter | | Weight per | |
|--------------|-------------------|-----------------------------|----------------------|--|------------|------------|
| | | | mm | | 100 m kg | 300 ft. lb |
| TXLP1 | 10156651 | 12.7 | 6.0 | | 4.6 | 11.1 |
| TXLP1 | 10156650 | 7.7 | 6.0 | | 4.6 | 11.1 |
| TXLP1 | 10156649 | 5.35 | 6.0 | | 4.6 | 11.1 |
| TXLP1 | 10156648 | 3.5 | 6.1 | | 4.9 | 11.8 |
| TXLP1 | 10156647 | 2.5 | 6.1 | | 5.1 | 12.3 |
| TXLP1 | 10156646 | 1.4 | 6.1 | | 5.0 | 12.0 |
| TXLP1 | 10156645 | 1.0 | 6.3 | | 5.2 | 11.8 |
| TXLP1 | 10156644 | 0.7 | 6.3 | | 5.1 | 12.3 |
| TXLP1 | 10156613 | 0.49 | 6.3 | | 5.3 | 12.0 |
| TXLP1 | 10156612 | 0.3 | 6.3 | | 5.3 | 12.8 |
| TXLP1 | 10156611 | 0.2 | 6.3 | | 5.3 | 12.8 |
| TXLP1 | 10156610 | 0.13 | 6.5 | | 5.6 | 12.5 |
| TXLP1 | 10156609 | 0.09 | 6.3 | | 5.3 | 12.8 |
| TXLP1 | 10156608 | 0.07 | 6.5 | | 5.6 | 13.4 |
| TXLP1 | 10156607 | 0.05 | 6.5 | | 5.7 | 13.6 |
| TXLP1 | 10156606 | 0.02 | 6.5 | | 5.8 | 13.8 |
| TXLP1 | 10156651 | 12.7 | 6.0 | | 4.6 | 11.1 |
| TXLP1 | 10156650 | 7.7 | 6.0 | | 4.6 | 11.1 |
| TXLP1 | 10156649 | 5.35 | 6.0 | | 4.6 | 11.1 |
| TXLP1 | 10156648 | 3.5 | 6.1 | | 4.9 | 11.8 |
| TXLP1 | 10156647 | 2.5 | 6.1 | | 5.1 | 12.3 |
| TXLP1 | 10156646 | 1.4 | 6.1 | | 5.0 | 12.0 |

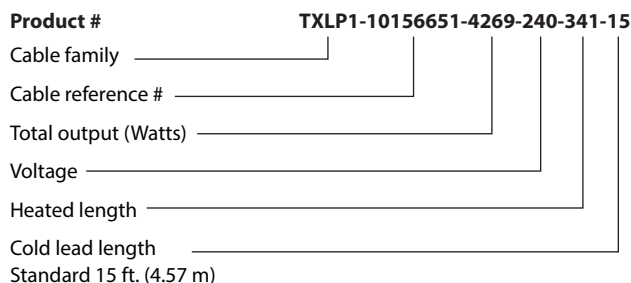
15 ft. (4.57 m) cold lead included. Longer lengths available in option.

Options

| Product # | Description |
|-------------------------------|--|
| Factory installed only | |
| 25 | 25 ft. (2.3 m) cold lead |
| 50 | 50 ft. (15 m) cold lead |
| 75 | 75 ft. (23 m) cold lead |
| 100 | 100 ft. (30.48 m) cold lead |
| Kit | |
| BRIPPS-75 | 75 ft. (23 m) galvanized steel cable clip strip for installation |
| KIT-SP3 | Repair kit |
| SM-PLATE ¹ | Brass marker for embedded electrical heating system |

¹ In compliance with the National Electrical Code (NEC) 426.13 Identification.

Product description code (example)



Made to order product, to obtain a quote please contact factory.

ORF-P

120V Preassembled Series Resistance Heating Cable for Pipes

Features

Nominal voltage

- 120V.

Linear density

- 7 Watts per foot.

Cold lead length

- 30 in. (0.76 m).

Outer jacket

- PVC.

Bus wire

- Nickel plated copper.

Minimum bend radius

- 5/16 in. (8 mm).

Included hardware

- Built-in bi-metal thermostat energizes the cable when temperature falls below 4 °C (40 °F).
- Grounded 3-pronged plug with indicator light to show when the cable is on.

Installation

- Never cut or shorten the heating cable.
- Installation under the insulation of the pipe.
- For indoor and outdoor applications.
- Minimum installation temperature: 0 °C (34 °F).

Warranty

- 1-year basic warranty on the heating cable.

Application

- Metallic and non-metallic pipes.
- Helps to prevent damage caused by frozen pipes.



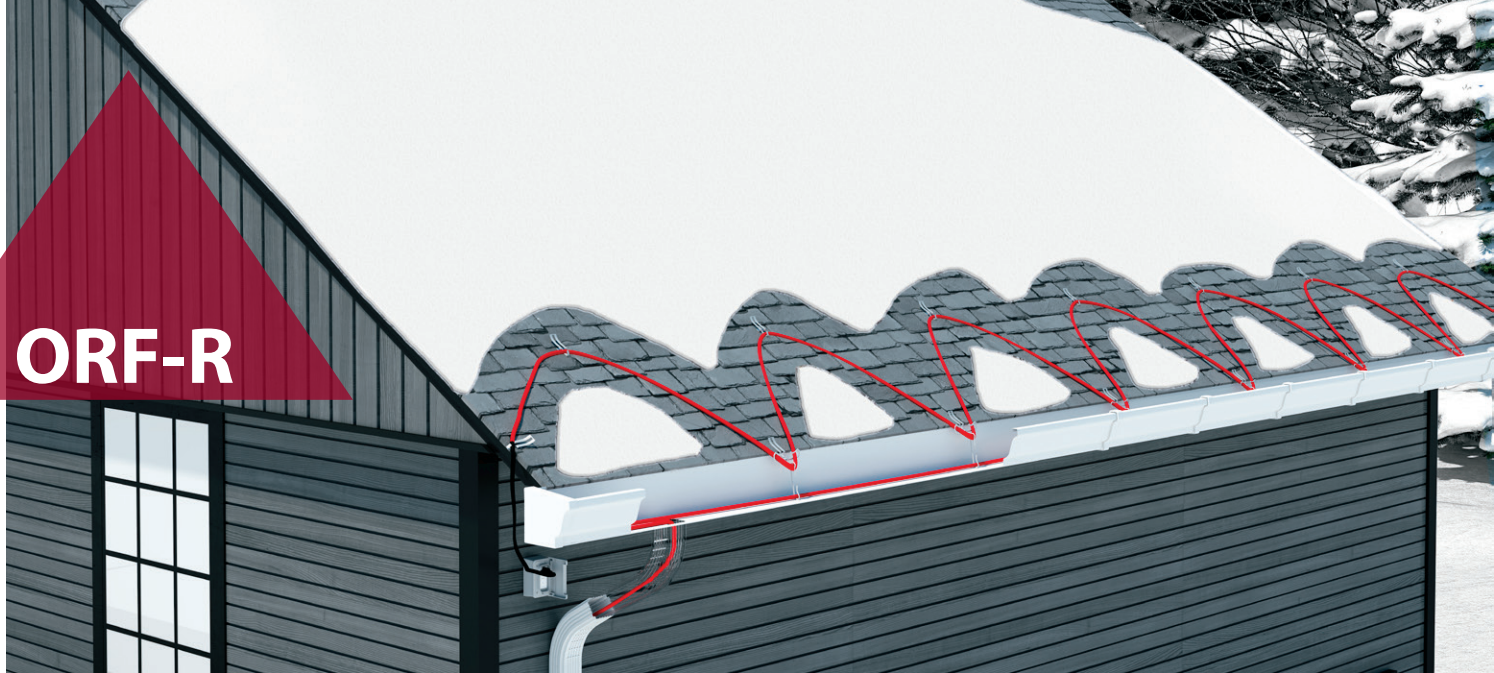


Models

| Product # ¹ | Length | | Watts |
|------------------------|--------|------|-------|
| | ft. | m | |
| ORF-P003 | 3 | 0.9 | 21 |
| ORF-P006 | 6 | 1.8 | 42 |
| ORF-P009 | 9 | 2.7 | 63 |
| ORF-P012 | 12 | 3.7 | 84 |
| ORF-P015 | 15 | 4.6 | 105 |
| ORF-P018 | 18 | 5.5 | 126 |
| ORF-P024 | 24 | 7.3 | 168 |
| ORF-P030 | 30 | 9.0 | 210 |
| ORF-P040 | 40 | 12.2 | 280 |
| ORF-P060 | 60 | 18.3 | 420 |
| ORF-P080 | 80 | 24.4 | 560 |

¹ Must be plugged into a 120V outlet fitted with ground fault protection device (GFCI).

ORF-R



120V Preassembled Series Resistance Heating Cable for Roof and Gutter De-icing

Features

Nominal voltage

- 120V.

Linear density

- 5 Watts per foot.

Cold lead length

- 30 in. (0.76 m).

Outer jacket

- PVC.

Bus wire

- Nickel plated copper.

Minimum bend radius

- 1/2 in. (12 mm).

Included hardware

- Roof clips for cable and spacers.
- Grounded 3-pronged plug with indicator light to show when the cable is on.

Installation

- Never cut or shorten the heating cable.
- For outdoor applications only.
- Minimum installation temperature: 0 °C (34 °F).

Warranty

- 1-year basic warranty on the heating cable.

Application

- Roof and gutter de-icing.





Models

| Product # ¹ | Length | | Watts |
|------------------------|--------|------|-------|
| | ft. | m | |
| ORF-R020 | 20 | 6.1 | 100 |
| ORF-R030 | 30 | 9.1 | 150 |
| ORF-R060 | 60 | 18.3 | 300 |
| ORF-R080 | 80 | 24.4 | 400 |
| ORF-R100 | 100 | 30.5 | 500 |
| ORF-R120 | 120 | 36.6 | 600 |
| ORF-R140 | 140 | 42.7 | 700 |
| ORF-R160 | 160 | 48.8 | 800 |
| ORF-R180 | 180 | 54.9 | 900 |
| ORF-R200 | 200 | 61.0 | 1000 |
| ORF-R240 | 240 | 73.2 | 1200 |

¹ Must be plugged into a 120V outlet fitted with ground fault protection device (GFCI).

Options

| Product # | Description |
|-------------|---|
| KIT-RF-CLIP | Roof clips (25) and spacers (15) for series resistance heating cable |
| RCR-U | Roof and gutter sentry for automatic de-icing control with humidity probe |



SR-MA

Micro Self-Regulating Heating Cable SR-MA

Features

Outer jacket

- Thermoplastic (AO).

Bus wire

- Nickel plated copper, 18 AWG.

Minimum start-up temperature

- -30 °C (-22 °F).

Maximum operating temperature (power on)

- 60 °C (140 °F).

Maximum continuous exposure temperature (power off)

- 60 °C (140 °F).

Nominal voltage

- 120V.

Bending radius, minimum

- 25 mm (1 in.).

Installation temperature, minimum

- -45 °C (-49 °F).

Standard

- IEEE 515, CSA 22.2 130.03

Certification

- FM CUS 3050047

Rating

- Wet rated, for outdoor use (WS).

Warranty

- 1-year basic warranty on the heating cable.

Application

- Heat tracing of metallic and non-metallic pipes, pumps, vessels and valves,
- food processing industry, automotive, refrigeration, sprinkler systems, sewage pipes and intake drain pipes.





Model

| Nominal output W/ft. | Product # 120V ^{1,2} | Cable dimension approx. (mm) |
|-------------------------|----------------------------------|---------------------------------|
| 5 | ELSR-MA-5-1-AO | 8.1 x 5.8 |

¹ AO Aluminum foil and a thermoplastic outer jacket.

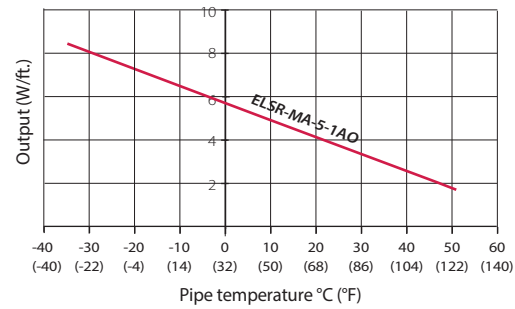
² When ordering, the quantity on the purchase order is equal to the length in feet of the cable required.
E.g.: To order a 500 ft., cable, write 500 for quantity with product code.

Heating circuit length

| Start-up temperature | 120V | |
|-------------------------|------------------------------------|---|
| | Circuit breaker capacity (A) | Maximum heating circuit (ft.) for ELSR-MA-5-1-AO |
| 10 °C (50 °F) | 10 | 132 |
| | 15 | 190 |
| | 20 | 190 |
| | 25 | 190 |
| 0 °C (32 °F) | 10 | 110 |
| | 15 | 174 |
| | 20 | 174 |
| | 25 | 174 |
| -10 °C (14 °F) | 10 | 94 |
| | 15 | 150 |
| | 20 | 161 |
| | 25 | 161 |
| -30 °C (-22 °F) | 10 | 73 |
| | 15 | 117 |
| | 20 | 141 |
| | 25 | 141 |

ELSR-MA-5-1-AO output

(on insulated metallic pipes, in accordance with IEEE 515/CSA 22.2 130-03)



Maximum heating circuit on the following conditions:

- 120 Voltage
- MCB type QO (100% utilization)
- Voltage drop max. 10%
- Single cable fed 1 end

Accessories

See Accessories section.



SR-MA-BF

Micro Self-Regulating Heating Cable SR-MA-BF suitable for use in potable water

Features

Outer jacket

- Fluoropolymer (BF).

Bus wire

- Nickel plated copper, 18 AWG.

Minimum start-up temperature

- -30 °C (-22 °F).

Maximum operating temperature (power on)

- 60 °C (140 °F).

Maximum continuous exposure temperature (power off)

- 60 °C (140 °F).

Nominal voltage

- 120V, 240/208V.

Bending radius, minimum

- 25 mm (1 in.).

Installation temperature, minimum

- -25 °C (-13 °F).

Standard

- IEEE 515, CSA 22.2 130.03

Certification

- FM CUS 3050047

Rating

- Wet rated, for outdoor use (WS).

- PS (2000 kPa/290 psi) (BF).

Warranty

- 1-year basic warranty on the heating cable.

Application

- Heat tracing of metallic and non-metallic pipes, pumps, vessels and valves,

- Potable water line.

eltherm®
innovations in heat tracing 





SR-MA-BF
Micro Self-Regulating Heating Cable SR-MA-BF
suitable for use in potable water



Models

| Nominal output W/ft. | Product # 120V ^{1,3} | Product # 240V ^{1,2,3} | Cable dimension approx. (mm) |
|-------------------------|----------------------------------|------------------------------------|---------------------------------|
| 3 | ELSR-MA-3-1-BF | ELSR-MA-3-2-BF | 7.7 x 6.4 |

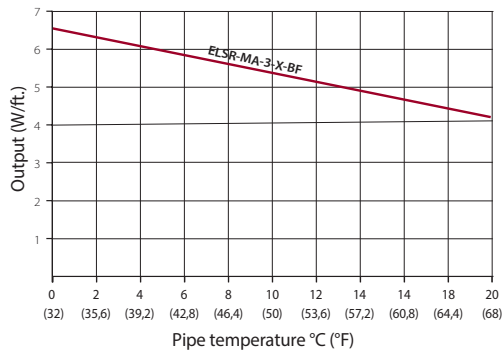
¹ BF Protective braid, suitable for use in potable water (certified according to NSF/ANSI 61).
² For operations at 208V, please consult Eltherm® correction factors/multipliers.
³ When ordering, the quantity on the purchase order is equal to the length in feet of the cable required.
 E.g.: To order a 500 ft., cable, write 500 for quantity with product code.

Heating circuit length

| Start-up temperature | 120V | |
|-------------------------|------------------------------------|---|
| | Circuit breaker capacity (A) | Maximum heating circuit (ft.) for ELSR-MA-3-1-BF |
| 10 °C (50 °F) | 10 | 139 |
| | 15 | 167 |
| | 20 | 167 |
| | 25 | 167 |
| 0 °C (32 °F) | 10 | 112 |
| | 15 | 153 |
| | 20 | 153 |
| | 25 | 153 |

| Start-up temperature | 240V | |
|-------------------------|------------------------------------|---|
| | Circuit breaker capacity (A) | Maximum heating circuit (ft.) for ELSR-MA-3-2-BF |
| 10 °C (50 °F) | 10 | 241 |
| | 15 | 302 |
| | 20 | 302 |
| | 25 | 302 |
| 0 °C (32 °F) | 10 | 202 |
| | 15 | 282 |
| | 20 | 282 |
| | 25 | 282 |

ELSR-MA-3-X-BF
 (in a filled water pipeline)



Maximum heating circuit on the following conditions:

- 120/240 Voltage
- Voltage drop max. 10%
- MCB type QO (100% utilization)
- Single cable fed 1 end

**Eltherm® correction factors/multipliers
 for operation of heating cables in 208V**

To calculate the corrected power output for operation in 208V, multiply the published output at 240V (in W/ft.) by the nominal output factor provided for the applicable heating cable type.

To calculate maximum heating circuit lengths for operation in 208V (tables provided in product data sheets), multiply the published max. heating circuit length at 240V provided for the applicable heating cable type.

| Heating cable correction factors/ Multipliers | Nominal output 208V vs. 240V | Heating circuit length 208V vs. 240V |
|--|---------------------------------|---|
| ELSR-MA-3-2-BF | 0.82 | 1.00 |

Accessories

See Accessories section.



SR-PI

120V Preassembled Self-Regulating Heating Cable for Pipe Tracing for Freeze Protection and Roof and Gutter De-icing

eltherm®
innovations in heat tracing 

Features

Outer jacket

- 120V.

Cold lead length

- 36" (0.9 m).

Outer jacket

- Thermoplastic.

Bus wire

- Nickel plated copper.

Maximum operating temperature (power on)

- 60 °C (140 °F).

Maximum continuous exposure temperature (power off)

- 80 °C (176 °F).

Cable section

- 14.1 mm X 5.6 mm.

Bending radius, minimum

- 25 mm (1 in.).

Included hardware

- Grounded 3-pronged plug with indicator light to show when the cable is on.

Minimum installation and start-up temperature

- -25 °C (-13 °F).

Standards

- CSA C22.2.130.03; -WS
- CAN/CSA 60079-7:12, 60079-0-11
- ANSI/IEEE 515, 515

Certification

- CSA C US 2547790

Rating

- Wet rated, for outdoor use (WS).

Warranty

- 1-year basic warranty on the heating cable.

Application

- Freeze protection, roof and gutter, pipes.





SR-PI

120V Preassembled Self-Regulating Heating Cable for Pipe Tracing for Freeze Protection and Roof and Gutter De-icing



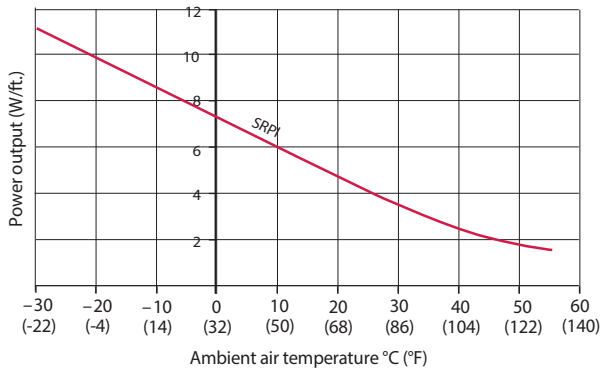
Models

| Product # ¹ | Length | | Nominal power output in air condition at 5 °C (40 °F) ² |
|------------------------|--------|------|---|
| | ft. | m | |
| ECK-7AO-006 | 6 | 1.8 | 42 |
| ECK-7AO-012 | 12 | 3.6 | 84 |
| ECK-7AO-018 | 18 | 5.5 | 126 |
| ECK-7AO-025 | 25 | 7.6 | 175 |
| ECK-7AO-050 | 50 | 15.2 | 350 |
| ECK-7AO-075 | 75 | 22.9 | 525 |
| ECK-7AO-100 | 100 | 30.5 | 700 |

¹ Must be plugged into a 120V outlet fitted with ground fault protection device (GFCI).

² Because of the cable's self-regulating properties, the power density can reach up to 11 Watts per foot when buried in snow or ice: "wet density". In this situation, use of a 15 Amp. circuit breaker is valid for all models.

Linear power output in air condition according to operating temperature



Cable heat output depending on the environment

In Snow and Ice (120V cable)

- 11W/ft. @ 50 °F (36W/m @ 10 °C)

In Dry Air

- 7W/ft. @ 50 °F (23W/m @ 10 °C)

SR-NA

All Purpose Self-Regulating Heating Cable SR-NA

eltherm®
innovations in heat tracing 

Features

Outer jacket

- Thermoplastic (AO).

Bus wire

- Nickel plated copper, 16 AWG.

Minimum start-up temperature

- -30 °C (-22 °F).

Maximum operating temperature (power on)

- 60 °C (140 °F).

Maximum continuous exposure temperature (power off)

- 80 °C (176 °F).

Nominal voltage

- 120V, 240/208V.

Bending radius, minimum

- 25 mm (1 in.).

Installation temperature, minimum

- -45 °C (-49 °F).

Classification

- II 2G Ex e IIC T6 Gb II 2D Ex tb IIIC

- T 80 °C Db

- Class I, Division 2, Groups A, B, C, D

- Class II, Division 2, Groups E, F, G

- Class III, T6

- Class I, Zone 1, AEx / Exe II, T6

- Class 1, Division 1, Groups B, C, D (Contact manufacturer)

Standards

- CSA C22.2.130.03; -WS

- CAN/CSA 60079-7:12, 60079-0-11

- ANSI/IEEE 515, 515

Certification

- IECEx EPS 12.0006U

- 12ATEX1431U

- CSA C US 2547790

Rating

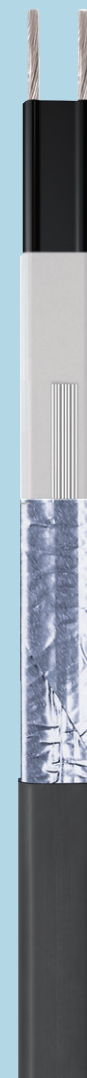
- Wet rated, for outdoor use (WS).

Warranty

- 1-year basic warranty on the heating cable.

Application

- Freeze protection, heat tracing instrumentation, pipes, vessel and tanks, chemical and petrochemical industries, food processing, automotive, roof and gutter, sprinkler systems.





Models

| Nominal output W/ft. | Product # 120V ^{1,3} | Nominal output W/ft. | Product # 240V ^{1,2,3} | Cable dimension approx. (mm) |
|----------------------|-------------------------------|----------------------|---------------------------------|------------------------------|
| 5 | ELSR-NA-5-1-AO | 6 | ELSR-NA-6-2-AO | 13.8 x 5.6 |

¹ AO Aluminum foil and a thermoplastic outer jacket.

² For operations at 208V, please consult Eltherm® correction factors/multipliers.

³ When ordering, the quantity on the purchase order is equal to the length in feet of the cable required.
E.g.: To order a 500 ft. cable, write 500 for quantity with product code.

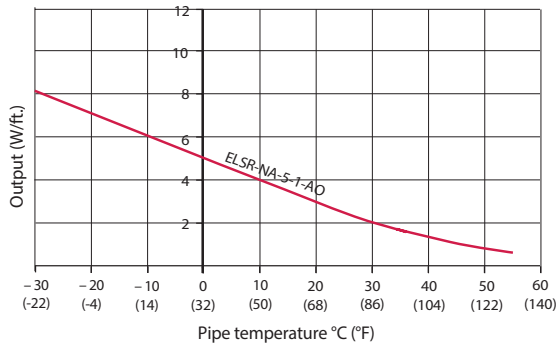
Heating circuit length

| Start-up temperature | 120V | |
|----------------------|------------------------------|--|
| | Circuit breaker capacity (A) | Maximum heating circuit (ft.) for ELSR-NA-5-1-AO |
| 10 °C (50 °F) | 10 | 125 |
| | 15 | 187 |
| | 20 | 249 |
| | 25 | 312 |
| | 30 | 374 |
| | 35 | 436 |
| 0 °C (32 °F) | 40 | 499 |
| | 10 | 112 |
| | 15 | 168 |
| | 20 | 224 |
| | 25 | 280 |
| | 30 | 336 |
| -10 °C (14 °F) | 35 | 392 |
| | 40 | 448 |
| | 10 | 102 |
| | 15 | 153 |
| | 20 | 204 |
| | 25 | 255 |
| -30 °C (-22 °F) | 30 | 306 |
| | 35 | 357 |
| | 40 | 408 |
| | 10 | 87 |
| | 15 | 130 |
| | 20 | 173 |
| | 25 | 217 |
| | 30 | 260 |
| | 35 | 303 |
| | 40 | 347 |

| Start-up temperature | 240V | |
|----------------------|------------------------------|--|
| | Circuit breaker capacity (A) | Maximum heating circuit (ft.) for ELSR-NA-6-2-AO |
| 10 °C (50 °F) | 10 | 170 |
| | 15 | 255 |
| | 20 | 340 |
| | 25 | 425 |
| | 30 | 510 |
| | 35 | 595 |
| 0 °C (32 °F) | 40 | 857 |
| | 10 | 154 |
| | 15 | 231 |
| | 20 | 308 |
| | 25 | 385 |
| | 30 | 462 |
| -10 °C (14 °F) | 35 | 539 |
| | 40 | 616 |
| | 10 | 141 |
| | 15 | 211 |
| | 20 | 281 |
| | 25 | 352 |
| -30 °C (-22 °F) | 30 | 422 |
| | 35 | 492 |
| | 40 | 563 |
| | 10 | 120 |
| | 15 | 180 |
| | 20 | 240 |
| | 25 | 300 |
| | 30 | 360 |
| | 35 | 420 |
| | 40 | 480 |

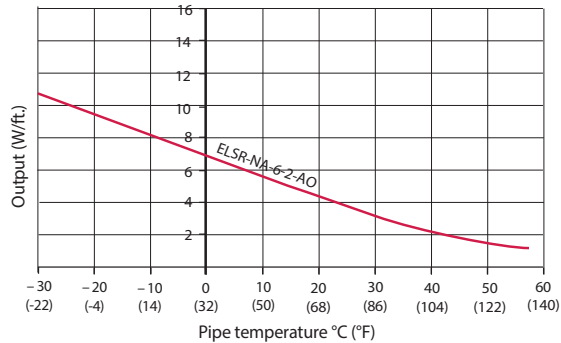
ELSR-NA-5-1-AO output

(on insulated metallic pipes)



ELSR-NA-6-2-AO output

(on insulated metallic pipes)



Eltherm® correction factors/multipliers for operation of heating cables in 208V

To calculate the corrected power output for operation in 208V, multiply the published output at 240V (in W/ft.) by the nominal output factor provided for the applicable heating cable type.

To calculate maximum heating circuit lengths for operation in 208V (tables provided in product data sheets), multiply the published max. heating circuit length at 240V provided for the applicable heating cable type.

| Heating cable correction factors/ Multipliers | Nominal output 208V vs. 240V | Heating circuit length 208V vs. 240V |
|--|---------------------------------|---|
| ELSR-NA-X-2 | 0.88 | 0.93 |

Maximum heating circuit on the following conditions:

- 120/240 Voltage
- MCB type QO (100% utilization)
- Voltage drop max. 10%
- Single cable fed 1 end

Accessories

See Accessories section.



PSB



All Purpose Self-Regulating Heating Cable PSB

Features

Outer jacket

- Polyolefin (CR) / Fluoropolymer (CT).

Bus wire

- Nickel plated copper, 16 AWG.

Minimum start-up temperature

- -55 °C (-67 °F).

Maximum operating temperature (power on)

- 65 °C (150 °F).

Maximum continuous exposure temperature (power off)

- 85 °C (185 °F).

Nominal voltage

- 120V, 240/208V, 277V.

Bending radius, minimum

- 25 mm (1 in.).

Installation temperature, minimum

- -55 °C (-67 °F).

Classification

- Class I, Division 2, Groups A, B, C, D

- Class II, Division 2, Groups E, F, G

- Class III

Certification

- CAN/CSA-C22.2 No. 130-03

- CSA C US 1862457;

Class: 2878-01, 2878-81

Class: 2872-01, 2872-81

Rating

- Wet rated, for outdoor use (WS).

Warranty

- 1-year basic warranty on the heating cable.

Application

- Freeze protection, heat tracing instrumentation, pipes, vessel and tanks, chemical and petrochemical industries, food processing, automotive, roof and gutter.

Models

| Nominal output W/ft. | Product # | | Outer jacket/Mechanical shield | | Cable dimension approx. (mm) |
|-------------------------|---------------------|-----------------------|--------------------------------|----|---------------------------------|
| | 120V ^{1,3} | 240V ^{1,2,3} | CR | CT | |
| 3 | 3PSB1-XX | 3PSB2-XX | ✓ | ✓ | 11.6 x 5.8 |
| 5 | 5PSB1-XX | 5PSB2-XX | ✓ | ✓ | 11.6 x 5.8 |
| 8 | 8PSB1-XX | 8PSB2-XX | ✓ | ✓ | 11.6 x 5.8 |
| 10 | 10PSB1-XX | 10PSB2-XX | ✓ | ✓ | 11.6 x 5.8 |

¹ XX = Outer jacket/Mechanical shield.

CR Protective braid and a polyolefin outer jacket.

CT Protective braid and a fluoropolymer outer jacket.

² For operations at 208V or 277V, please consult Bartec correction factors/multipliers.

³ When ordering, the quantity on the purchase order is equal to the length in feet of the cable required.
E.g.: To order a 500 ft. cable, write 500 for quantity with product code.

BARTEC



CR Model

CT Model





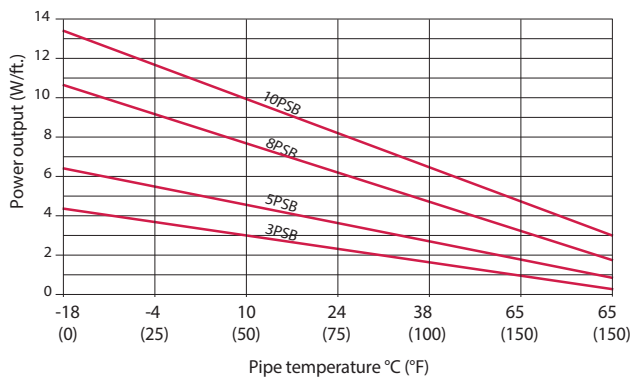
Heating circuit length

The following table shows the maximum circuit length in ft. for the different PSB trace heater types with standard circuit breaker amperages. Breaker sizes should be based on the National Electrical Code, Canadian Electrical Code or any other local or applicable code. Use only circuit breakers with type C tripping characteristics.

| Start-up temperature | Circuit breaker capacity ¹ (A) | 120V Maximum heating circuit (ft.) for | | | | Start-up temperature | Circuit breaker capacity ¹ (A) | 240V Maximum heating circuit (ft.) for | | | |
|----------------------|---|--|-------|-------|--------|----------------------|---|--|-------|-------|--------|
| | | 3PSB1 | 5PSB1 | 8PSB1 | 10PSB1 | | | 3PSB2 | 5PSB2 | 8PSB2 | 10PSB2 |
| 10 °C (50 °F) | 10 | 197 | 138 | 95 | 75 | 10 °C (50 °F) | 10 | 371 | 266 | 157 | 102 |
| | 15 | 295 | 210 | 141 | 115 | | 15 | 554 | 397 | 240 | 151 |
| | 20 | 344 | 279 | 190 | 151 | | 20 | 673 | 531 | 318 | 203 |
| | 25 | 344 | 282 | 217 | 164 | | 25 | 673 | 551 | 397 | 253 |
| | 30 | 344 | 282 | 217 | 164 | | 30 | 673 | 551 | 430 | 305 |
| | 35 | 344 | 282 | 217 | 164 | | 35 | 673 | 551 | 430 | 328 |
| 0 °C (32 °F) | 40 | 344 | 282 | 217 | 164 | 40 | 673 | 551 | 430 | 328 | |
| | 10 | 171 | 121 | 82 | 66 | 0 °C (32 °F) | 10 | 325 | 233 | 141 | 89 |
| | 15 | 259 | 184 | 125 | 102 | | 15 | 489 | 351 | 213 | 135 |
| | 20 | 344 | 243 | 167 | 135 | | 20 | 653 | 466 | 282 | 180 |
| | 25 | 344 | 282 | 210 | 164 | | 25 | 673 | 551 | 354 | 226 |
| | 30 | 344 | 282 | 217 | 164 | | 30 | 673 | 551 | 427 | 269 |
| 35 | 344 | 282 | 217 | 164 | 35 | | 673 | 551 | 430 | 315 | |
| -10 °C (14 °F) | 40 | 344 | 282 | 217 | 164 | 40 | 673 | 551 | 430 | 328 | |
| | 10 | 154 | 108 | 75 | 59 | -10 °C (14 °F) | 10 | 289 | 207 | 125 | 79 |
| | 15 | 230 | 164 | 112 | 92 | | 15 | 436 | 312 | 190 | 121 |
| | 20 | 308 | 217 | 151 | 121 | | 20 | 581 | 417 | 253 | 161 |
| | 25 | 344 | 272 | 190 | 151 | | 25 | 673 | 518 | 318 | 203 |
| | 30 | 344 | 282 | 217 | 164 | | 30 | 673 | 551 | 381 | 243 |
| 35 | 344 | 282 | 217 | 164 | 35 | | 673 | 551 | 430 | 285 | |
| -18 °C (0 °F) | 40 | 344 | 282 | 217 | 164 | 40 | 673 | 551 | 430 | 325 | |
| | 10 | 141 | 98 | 69 | 56 | -18 °C (0 °F) | 10 | 266 | 190 | 118 | 75 |
| | 15 | 210 | 151 | 105 | 85 | | 15 | 400 | 285 | 177 | 112 |
| | 20 | 282 | 200 | 141 | 112 | | 20 | 535 | 381 | 236 | 151 |
| | 25 | 344 | 249 | 174 | 141 | | 25 | 669 | 479 | 295 | 187 |
| | 30 | 344 | 282 | 210 | 164 | | 30 | 673 | 551 | 354 | 226 |
| 35 | 344 | 282 | 217 | 164 | 35 | | 673 | 551 | 413 | 262 | |
| -29 °C (-20 °F) | 40 | 344 | 282 | 217 | 164 | 40 | 673 | 551 | 430 | 302 | |
| | 10 | 128 | 89 | 62 | 49 | -29 °C (-20 °F) | 10 | 240 | 171 | 105 | 66 |
| | 15 | 190 | 135 | 95 | 75 | | 15 | 361 | 256 | 161 | 102 |
| | 20 | 256 | 180 | 128 | 102 | | 20 | 482 | 344 | 213 | 135 |
| | 25 | 318 | 226 | 157 | 128 | | 25 | 604 | 430 | 266 | 171 |
| | 30 | 344 | 269 | 190 | 154 | | 30 | 673 | 515 | 322 | 203 |
| 35 | 344 | 282 | 217 | 164 | 35 | | 673 | 551 | 374 | 240 | |
| -40 °C (-40 °F) | 40 | 344 | 282 | 217 | 164 | 40 | 673 | 551 | 430 | 272 | |
| | 10 | 115 | 82 | 56 | 46 | -40 °C (-40 °F) | 10 | 220 | 154 | 95 | 62 |
| | 15 | 174 | 121 | 85 | 69 | | 15 | 328 | 233 | 144 | 92 |
| | 20 | 233 | 164 | 115 | 92 | | 20 | 440 | 312 | 194 | 125 |
| | 25 | 289 | 203 | 144 | 118 | | 25 | 548 | 390 | 243 | 154 |
| | 30 | 344 | 246 | 174 | 141 | | 30 | 659 | 469 | 292 | 187 |
| 35 | 344 | 282 | 203 | 164 | 35 | | 673 | 548 | 341 | 220 | |
| 40 | 344 | 282 | 217 | 164 | 40 | 673 | 551 | 390 | 249 | | |

¹ Breaker sizing should be based on the National Electrical Code, Canadian Electrical Code or any other applicable code. The NEC and CEC require ground-fault protection of equipment for each branch circuit supplying electric heating equipment. Check local codes for ground-fault protection requirements.

Power output 120V/240V under nominal conditions (on insulated steel pipes)



Maximum heating circuit on the following conditions:

- 120/240 Voltage
- Voltage drop max. 10%
- Single cable fed 1 end
- MCB 80% utilization

Cable heat output depending on the environment

- In Snow and Ice**
- 13W/ft. @ 32 °F (42W/m @ 0 °C)
- In Dry Air**
- 8W/ft. @ 32 °F (26W/m @ 0 °C)

Bartec correction factors/multipliers for operation of heating cables in 208V and 277V

To calculate the corrected power output for operation in 208V or 277V, multiply the published output at 240V (in W/ft.) by the nominal output factor provided for the applicable heating cable type.

To calculate maximum heating circuit lengths for operation in 208V or 277V (tables provided in product data sheets), multiply the published max. heating circuit length at 240V provided for the applicable heating cable type.

Due to the cable's self-regulating properties, the power density can reach up to 11W/ft. (120V) and 13W/ft. (240V) when buried in snow or ice: "wet density".

| Adjustment factors | Heating cable correction factors/ Multipliers | Nominal output | Heating circuit length |
|--------------------|---|----------------|------------------------|
| 208V | 3PSB2 | 0.90 | 0.96 |
| | 5PSB2 | 0.93 | 0.94 |
| | 8PSB2 | 0.95 | 0.92 |
| | 10PSB2 | 0.97 | 0.92 |
| 277V | 3PSB2 | 1.23 | 1.09 |
| | 5PSB2 | 1.19 | 1.10 |
| | 8PSB2 | 1.11 | 1.14 |
| | 10PSB2 | 1.06 | 1.16 |

Accessories

See Accessories section.



MSB

Medium Temperature Self-Regulating Heating Cable MSB

BARTEC

Features

Outer jacket

- Fluoropolymer (CT).

Bus wire

- Nickel plated copper, 16 AWG.

Minimum start-up temperature

- -60 °C (-76 °F).

Maximum operating temperature (power on)

- 110 °C (230 °F).

Maximum continuous exposure temperature (power off)

- 110 °C (230 °F), continuous.
- 130 °C (266 °F), power off for 1000 hr cumulative.

Nominal voltage

- 120V, 240/208V, 277V.

Bending radius, minimum

- 25 mm (1 in.).

Installation temperature, minimum

- -60 °C (-76 °F).

Classification

- Ex 60079-30-1 IICT3, T4 Gb
- Ex 60079-30-1 IIICT170 °C, T130 °C Db
- Class I, Division 2, Groups A, B, C, D
- Class II, Division 2, Groups E, F, G
- Class III, T4 3MSB, 5MSB
- Class III, T3 10MSB, 15MSB, 20MSB

Standards

- CSA C22.2.130.16; -WS
- Ex CAN/CSA 60079-30 IIC T3, T4b
- 60079-30 IIIC T170 °C, T 130 °C Db
- IEEE 515.1-2012, 515-2017

Certification

- IECEx DEK 17.0004U
- CSA C US 1862457

Rating

- Wet rated, for outdoor use (WS).

Warranty

- 1-year basic warranty on the heating cable.

Application

- Freeze protection, heat tracing instrumentation, pipes, vessel and tanks, chemical and petrochemical industries, food processing, automotive.





Models

| Nominal output W/ft. | Product # | | Cable dimension approx. (mm) |
|-------------------------|---------------------|-----------------------|---------------------------------|
| | 120V ^{1,3} | 240V ^{1,2,3} | |
| 3 | 3MSB1-CT | 3MSB2-CT | 10.2 x 4.8 |
| 5 | 5MSB1-CT | 5MSB2-CT | 10.2 x 4.8 |
| 10 | 10MSB1-CT | 10MSB2-CT | 10.2 x 4.8 |
| 15 | 15MSB1-CT | 15MSB2-CT | 10.2 x 4.8 |
| 20 | 20MSB1-CT | 20MSB2-CT | 10.2 x 4.8 |

¹ CT Protective braid and a fluoropolymer outer jacket.

² For operations at 208V, please consult Bartec correction factors/multipliers.

³ When ordering, the quantity on the purchase order is equal to the length in feet of the cable required.
E.g.: To order a 500 ft., cable, write 500 for quantity with product code.

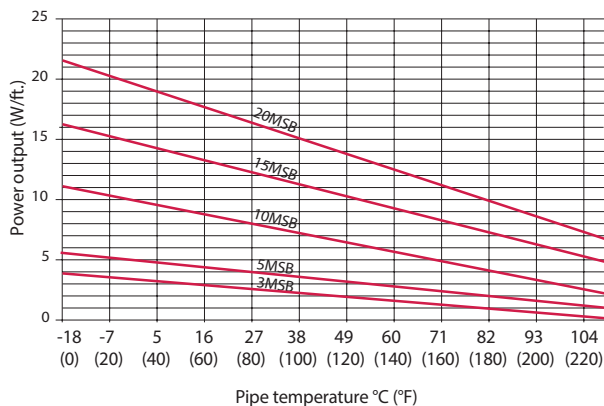
Heating circuit length

The following table shows the maximum circuit length in ft. for the different MSB trace heater types with standard circuit breaker amperages. Breaker sizes should be based on the National Electrical Code, Canadian Electrical Code or any other local or applicable code. Use only circuit breakers with type C tripping characteristics.

| Start-up temperature | Circuit breaker capacity ¹ (A) | 120V Maximum heating circuit (ft.) for | | | | | 240V Maximum heating circuit (ft.) for | | | | |
|----------------------|---|---|-------|--------|--------|--------|---|-------|--------|--------|--------|
| | | 3MSB1 | 5MSB1 | 10MSB1 | 15MSB1 | 20MSB1 | 3MSB2 | 5MSB2 | 10MSB2 | 15MSB2 | 20MSB2 |
| 10 °C (50 °F) | 20 | 394 | 279 | 157 | 115 | 89 | 755 | 538 | 302 | 220 | 171 |
| | 30 | 394 | 322 | 226 | 138 | 128 | 761 | 627 | 443 | 276 | 253 |
| | 40 | 394 | 322 | 226 | 138 | 128 | 761 | 627 | 443 | 276 | 253 |
| -18 °C (0 °F) | 20 | 338 | 243 | 135 | 98 | 79 | 20 | 646 | 469 | 259 | 190 |
| | 30 | 394 | 322 | 203 | 138 | 118 | 30 | 761 | 627 | 390 | 276 |
| | 40 | 394 | 322 | 226 | 138 | 128 | 40 | 761 | 627 | 443 | 276 |
| -29 °C (-20 °F) | 20 | 322 | 233 | 128 | 95 | 75 | 20 | 614 | 446 | 246 | 180 |
| | 30 | 394 | 322 | 194 | 138 | 112 | 30 | 761 | 627 | 371 | 272 |
| | 40 | 394 | 322 | 226 | 138 | 128 | 40 | 761 | 627 | 443 | 276 |
| -40 °C (-40 °F) | 20 | 305 | 322 | 121 | 92 | 72 | 20 | 584 | 427 | 236 | 174 |
| | 30 | 394 | 322 | 184 | 135 | 105 | 30 | 761 | 627 | 354 | 259 |
| | 40 | 394 | 322 | 226 | 138 | 128 | 40 | 761 | 627 | 443 | 276 |

¹ Breaker sizing should be based on the National Electrical Code, Canadian Electrical Code or any other applicable code. The NEC and CEC require ground-fault protection of equipment for each branch circuit supplying electric heating equipment. Check local codes for ground-fault protection requirements.

Power output 120V/240V under nominal conditions (on insulated steel pipes)



Maximum heating circuit on the following conditions:

- 120/240 Voltage
- Voltage drop max. 10%
- Single cable fed 1 end

Bartec correction factors/multipliers for operation of heating cables in 208V and 277V

To calculate the corrected power output for operation in 208 or 277V, multiply the published output at 240V (in W/ft.) by the nominal output factor provided for the applicable heating cable type.

To calculate maximum heating circuit lengths for operation in 208V or 277 (tables provided in product data sheets), multiply the published max. heating circuit length at 240V provided for the applicable heating cable type.

| Adjustment factors | Heating cable correction factors/ Multipliers | Nominal output | Heating circuit length |
|--------------------|--|----------------|------------------------|
| 208V | 3MSB2 | 0.83 | 0.99 |
| | 5MSB2 | 0.85 | 0.98 |
| | 10MSB2 | 0.92 | 0.94 |
| | 15MSB2 | 0.95 | 0.93 |
| | 20MSB2 | 0.97 | 0.91 |
| 277V | 3MSB2 | 1.37 | 1.03 |
| | 5MSB2 | 1.31 | 1.05 |
| | 10MSB2 | 1.19 | 1.02 |
| | 15MSB2 | 1.15 | 1.12 |
| | 20MSB2 | 1.09 | 1.13 |

Accessories

See Accessories section.



HSB

High Temperature Self-Regulating Heating Cable HSB

Features

Outer jacket

- Fluoropolymer (CT).

Bus wire

- Nickel plated copper, 16 AWG.

Minimum start-up temperature

- -60 °C (-76 °F).

Maximum operating temperature (continuous)

- 120 °C (248 °F).

Maximum continuous exposure temperature (power off)

- 200 °C (392 °F), continuous.

- 190 °C (374 °F), power off for 1000 hr cumulative.

Nominal voltage

- 120V, 240/208V.

Bending radius, minimum

- 25 mm (1 in.).

Installation temperature, minimum

- -60 °C (-76 °F).

Classification

- Class I, Division 2, Groups A, B, C, D

- Class II, Division 2, Groups E, F, G

- Class III

Certification

- CAN/CSA-C22.2 No. 130-03

- CSA C US 1862457;

Class: 2878-01, 2878-81

Class: 2872-01, 2872-81

Rating

- Wet rated, for outdoor use (WS).

Warranty

- 1-year basic warranty on the heating cable.

Application

- Freeze protection, heat tracing instrumentation, pipes, vessel and tanks, chemical and petrochemical industries, food processing, automotive.

BARTEC





Models

| Nominal output W/ft. | Product # | | Cable dimension approx. (mm) |
|-------------------------|---------------------|-----------------------|---------------------------------|
| | 120V ^{1,3} | 240V ^{1,2,3} | |
| 5 | 5HSB1-CT | 5HSB2-CT | 10.2 x 4.8 |
| 10 | 10HSB1-CT | 10HSB2-CT | 10.2 x 4.8 |
| 15 | 15HSB1-CT | 15HSB2-CT | 10.2 x 4.8 |
| 20 | 20HSB1-CT | 20HSB2-CT | 10.2 x 4.8 |

¹ CT Protective braid and a fluoropolymer outer jacket.

² For operations at 208V, please consult Bartec correction factors/multipliers.

³ When ordering, the quantity on the purchase order is equal to the length in feet of the cable required.
E.g.: To order a 500 ft., cable, write 500 for quantity with product code.

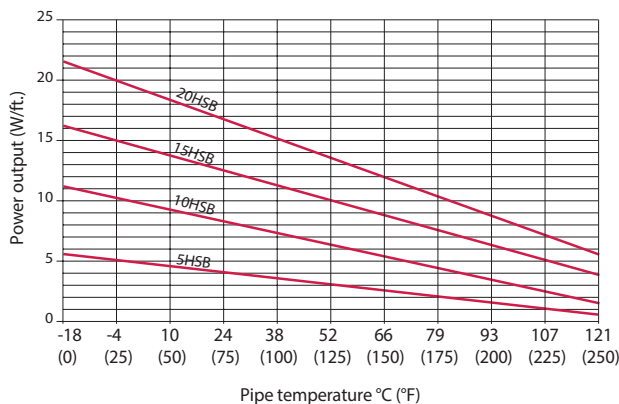
Heating circuit length

The following table shows the maximum circuit length in ft. for the different HSB trace heater types with standard circuit breaker amperages. Breaker sizes should be based on the National Electrical Code, Canadian Electrical Code or any other local or applicable code. Use only circuit breakers with type C tripping characteristics.

| Start-up temperature | Circuit breaker capacity ¹ (A) | 120V | | | | 240V | | | | |
|----------------------|---|-------|--------|--------|--------|-------|--------|--------|--------|-----|
| | | 5HSB1 | 10HSB1 | 15HSB1 | 20HSB1 | 5HSB1 | 10HSB1 | 15HSB1 | 20HSB1 | |
| 10 °C (50 °F) | 20 | 279 | 157 | 115 | 89 | 20 | 538 | 302 | 220 | 171 |
| | 30 | 322 | 226 | 138 | 128 | 30 | 627 | 443 | 276 | 253 |
| | 40 | 322 | 226 | 138 | 128 | 40 | 627 | 443 | 276 | 253 |
| -18 °C (0 °F) | 20 | 243 | 135 | 98 | 79 | 20 | 469 | 259 | 190 | 148 |
| | 30 | 322 | 203 | 138 | 118 | 30 | 627 | 390 | 276 | 223 |
| | 40 | 322 | 226 | 138 | 128 | 40 | 627 | 443 | 276 | 253 |
| -29 °C (-20 °F) | 20 | 233 | 128 | 95 | 75 | 20 | 446 | 246 | 180 | 141 |
| | 30 | 322 | 194 | 138 | 112 | 30 | 627 | 371 | 272 | 210 |
| | 40 | 322 | 226 | 138 | 128 | 40 | 627 | 443 | 276 | 253 |
| -40 °C (-40 °F) | 20 | 322 | 121 | 92 | 72 | 20 | 427 | 236 | 174 | 135 |
| | 30 | 322 | 184 | 135 | 105 | 30 | 627 | 354 | 259 | 200 |
| | 40 | 322 | 226 | 138 | 128 | 40 | 627 | 443 | 276 | 253 |

¹ Breaker sizing should be based on the National Electrical Code, Canadian Electrical Code or any other applicable code. The NEC and CEC require ground-fault protection of equipment for each branch circuit supplying electric heating equipment. Check local codes for ground-fault protection requirements.

Power output 120V/240V under nominal conditions (on insulated steel pipes)



Bartec correction factors/multipliers for operation of heating cables in 208V

To calculate the corrected power output for operation in 208V, multiply the published output at 240V (in W/ft.) by the nominal output factor provided for the applicable heating cable type.

To calculate maximum heating circuit lengths for operation in 208V (tables provided in product data sheets), multiply the published max. heating circuit length at 240V provided for the applicable heating cable type.

| Adjustment factors | Heating cable correction factors/ Multipliers | Nominal output | Heating circuit length |
|--------------------|---|----------------|------------------------|
| | 5HSB2-CT | 0.85 | 0.98 |
| | 10HSB2-CT | 0.92 | 0.94 |
| | 15HSB2-CT | 0.95 | 0.93 |
| | 20HSB2-CT | 0.97 | 0.91 |

Maximum heating circuit on the following conditions:

- 120/240 Voltage
- Voltage drop max. 10%
- Single cable fed 1 end

Accessories

See Accessories section.



PF

High Temperature Constant Wattage Heating Cable PF

Features

Outer jacket

- Stainless steel braided (SB).

Bus wire

- Tinned copper.

Maximum maintenance temperature (continuous)

- 93 °C (200 °F).

Maximum exposure temperature (intermittent)

- 204 °C (400 °F).

Nominal voltage

- See table Watts/ft. (m) at alternate voltages.

Bending radius, minimum

- 25 mm (1 in.).

Installation temperature, minimum

- -21 °C (-5 °F).

Approvals

- Ordinary locations: FM Approved for pipe tracing
- Hazardous locations: FM Approved for Class I, Division 2, Groups B, C, and D

Warranty

- 1-year basic warranty on the heating cable.

Application

- Freeze protection and process heating applications.





Models

| Product # ¹ | Volts | Nominal output | | Amp. | | Zone length ² | | Max. circuit length ³ | |
|------------------------|-------|----------------|-----|------|-----|--------------------------|-----|----------------------------------|-----|
| | | W/ft. | W/m | ft. | m | in. | cm | ft. | m |
| PF-3-SB | 208 | 2.7 | 9 | .013 | .04 | 48 | 122 | 710 | 216 |
| PF-6-SB | 120 | 6.0 | 20 | .050 | .16 | 24 | 61 | 280 | 85 |
| PF-7-SB | 120 | 8.0 | 26 | .067 | .22 | 24 | 61 | 240 | 73 |
| PF-8-SB | 120 | 1.8 | 6 | .015 | .05 | 24 | 61 | 480 | 146 |
| PF-10-SB | 208 | 8.9 | 29 | .043 | .14 | 24 | 61 | 390 | 119 |
| PF-12-SB | 480 | 12.0 | 39 | .025 | .08 | 48 | 122 | 780 | 238 |

¹ Standard stainless steel braided.

² One complete heating zone is the distance between two successive bus connections.

³ Maximum circuit length is defined as the length of cable at which the heat output, due to voltage drop, decreases to 90 percent of the heat output at the power connection point.

Watts/ft. (m) at alternate voltages

| Product # | 120V | 208V | 240V | 277V | 480V |
|-----------|--------|--------|---------|--------|---------|
| PF-3-SB | - | 3 (9) | 4 (12) | 5 (16) | - |
| PF-6-SB | 6 (20) | - | - | - | - |
| PF-7-SB | 8 (26) | - | - | - | - |
| PF-8-SB | 2 (6) | 5 (18) | 7 (23) | 9 (13) | - |
| PF-10-SB | 3 (10) | 9 (29) | 12 (39) | - | - |
| PF-12-SB | - | - | 3 (10) | 4 (13) | 12 (39) |

Zone marker:

Zone Markers for PF series cable may be raised bumps, or depressions on the edge of the cable. (Braid may have to be pulled away to locate.)

Use of ground fault protective devices and metallic overshield

NEC CODE 2017, ARTICLE 427-22:

Equipment Protection. Ground-fault protection of equipment shall be provided for electric heat tracing and heating panels. This requirement shall not apply in industrial establishments where there is alarm indication of ground faults and the following conditions apply:

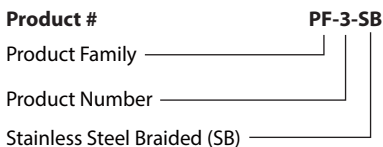
- (1) Conditions of maintenance and supervision ensure that only qualified persons service the installed systems.
- (2) Continued circuit operation is necessary for safe operation of equipment or processes.

NEC CODE 2017, ARTICLE 427-23:

Grounded Conductive Covering. Electric heating equipment shall be listed and have a grounded conductive covering in accordance with 427.23(A) or (B). The conductive covering shall provide an effective ground path for equipment protection.

- (a) Heating Wires or Cables. Heating wires or cables shall have a grounded conductive covering that surrounds the heating element and bus wires, if any, and their electrical insulation.

Product description code (example)



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Accessories

See Accessories section.



PT

Ultra High Temperature Constant Wattage Heating Cable PT

Features

Outer jacket

- Stainless steel braided (SB).

Bus wire

- Nickel plated copper.

Maximum maintenance temperature (continuous)

- 204 °C (400 °F).

Maximum exposure temperature (intermittent)

- 288 °C (550 °F).

Nominal voltage

- See table Watts/ft. (m) at alternate voltages.

Bending radius, minimum

- 25 mm (1 in.).

Installation temperature, minimum

- -21 °C (-5 °F).

Approvals

- Ordinary locations: FM Approved for pipe tracing
- Hazardous locations: FM Approved for Class I, Division 2, Groups B, C, and D

Warranty

- 1-year basic warranty on the heating cable.

Application

- Freeze protection and process heating applications.





Models

| Product # ¹ | Volts | Nominal output | | Amp. | | Zone length ² | | Max. circuit length ³ | |
|------------------------|-------|----------------|-----|------|-----|--------------------------|----|----------------------------------|-----|
| | | W/ft. | W/m | ft. | m | in. | cm | ft. | m |
| PT-3-SB | 120 | 3 | 10 | .025 | .08 | 24 | 61 | 390 | 119 |
| PT-6-SB | 120 | 6 | 20 | .050 | .16 | 24 | 61 | 280 | 85 |
| PT-8-SB | 240 | 8 | 26 | .033 | .11 | 24 | 61 | 480 | 146 |
| PT-10-SB | 120 | 10 | 33 | .083 | .27 | 24 | 61 | 210 | 64 |

¹ Standard stainless steel braided.

² One complete heating zone is the distance between two successive bus connections.

³ Maximum circuit length is defined as the length of cable at which the heat output, due to voltage drop, decreases to 90 percent of the heat output at the power connection point.

Watts/ft. (m) at alternate voltages

| Product # | 120V | 208V | 240V | 277V |
|-----------|---------|--------|---------|---------|
| PT-3-SB | 3 (10) | 9 (30) | 12 (39) | - |
| PT-6-SB | 6 (20) | - | - | - |
| PT-8-SB | 2 (7) | 6 (20) | 8 (26) | 11 (35) |
| PT-10-SB | 10 (33) | - | - | - |

Zone marker:

Zone Markers for PF series cable may be raised bumps on the edge of the cable. (Braid may have to be pulled away to locate.)

Use of ground fault protective devices and metallic overshield

NEC CODE 2017, ARTICLE 427-22:

Equipment Protection. Ground-fault protection of equipment shall be provided for electric heat tracing and heating panels. This requirement shall not apply in industrial establishments where there is alarm indication of ground faults and the following conditions apply:

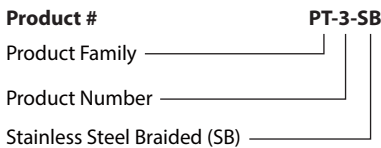
- (1) Conditions of maintenance and supervision ensure that only qualified persons service the installed systems.
- (2) Continued circuit operation is necessary for safe operation of equipment or processes.

NEC CODE 2017, ARTICLE 427-23:

Grounded Conductive Covering. Electric heating equipment shall be listed and have a grounded conductive covering in accordance with 427.23(A) or (B). The conductive covering shall provide an effective ground path for equipment protection.

(a) Heating Wires or Cables. Heating wires or cables shall have a grounded conductive covering that surrounds the heating element and bus wires, if any, and their electrical insulation.

Product description code (example)



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Accessories

See Accessories section.



BPL

High Temperature Constant Wattage Heating Cable BPL

BARTEC

Features

Outer jacket

- Aluminum.

Bus wire

- Nickel plated copper.

Minimum start-up temperature

- -40 °C (-40 °F).

Maximum exposure temperature

- 350 °C (662 °F), continuous.
- 425 °C (797 °F), intermittent.

Nominal voltage

- 110 to 120V, 208 to 277V.
- For 277V applications please contact factory.

Bending radius, minimum

- 25 mm (1 in.).

Installation temperature, minimum

- -40 °C (-40°F).

Classification

- II 2G Ex e II T* Gb
- II 2D Ex tb IIIC T* Db

Standards

- Class I, Division 2, Groups A, B, C, D
- Class II, Division 2, Groups E, F, G
- Class III.
- T1 to T3 (see table maximum pipe/work piece temperature)

Certification

- ATEX, IECEx, EAC*
- CSA 1350782 / 1352981

Warranty

- 2-year basic warranty on the heating cable.

Application

- Installation in non-hazardous and hazardous areas (Class 1, Division 2).





Maximum circuit length

| Start-up temperature | Circuit breaker capacity ¹ (A) | 120V Maximum heating circuit length (ft.) for | | | |
|----------------------|---|--|-----------|-----------|-----------|
| | | 5BPL1-AL | 10BPL1-AL | 15BPL1-AL | 20BPL1-AL |
| 10 °C (50 °F) | 20 | 291 | 178 | 121 | 85 |
| | 30 | 291 | 210 | 162 | 97 |
| | 40 | 291 | 210 | 162 | 131 |
| -18 °C (0 °F) | 20 | 275 | 162 | 108 | 78 |
| | 30 | 275 | 194 | 152 | 87 |
| | 40 | 275 | 194 | 152 | 124 |
| -40 °C (-40 °F) | 20 | 259 | 146 | 114 | 72 |
| | 30 | 259 | 178 | 145 | 81 |
| | 40 | 259 | 178 | 145 | 118 |

| Start-up temperature | Circuit breaker capacity ¹ (A) | 240V Maximum heating circuit length (ft.) for | | | |
|----------------------|---|--|-----------|-----------|-----------|
| | | 5BPL2-AL | 10BPL2-AL | 15BPL2-AL | 20BPL2-AL |
| 10 °C (50 °F) | 20 | 567 | 340 | 246 | 170 |
| | 30 | 567 | 405 | 344 | 278 |
| | 40 | 567 | 405 | 344 | 278 |
| -18 °C (0 °F) | 20 | 550 | 324 | 229 | 164 |
| | 30 | 550 | 388 | 328 | 262 |
| | 40 | 550 | 388 | 328 | 262 |
| -40 °C (-40 °F) | 20 | 518 | 307 | 213 | 147 |
| | 30 | 518 | 372 | 311 | 255 |
| | 40 | 518 | 372 | 311 | 255 |

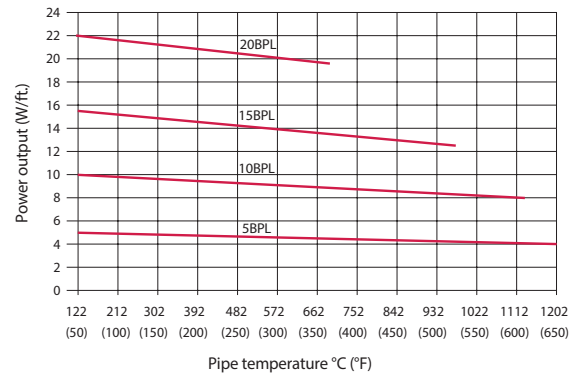
| Start-up temperature | Circuit breaker capacity ¹ (A) | 208V Maximum heating circuit length (ft.) for | | | |
|----------------------|---|--|-----------|-----------|-----------|
| | | 5BPL2-AL | 10BPL2-AL | 15BPL2-AL | 20BPL2-AL |
| 10 °C (50 °F) | 20 | 518 | 324 | 194 | 146 |
| | 30 | 518 | 356 | 275 | 227 |
| | 40 | 518 | 356 | 275 | 227 |
| -18 °C (0 °F) | 20 | 502 | 308 | 185 | 136 |
| | 30 | 502 | 340 | 266 | 217 |
| | 40 | 502 | 340 | 266 | 217 |
| -40 °C (-40 °F) | 20 | 470 | 292 | 178 | 130 |
| | 30 | 470 | 324 | 259 | 211 |
| | 40 | 470 | 324 | 259 | 211 |

| Start-up temperature | Circuit breaker capacity ¹ (A) | 277V Maximum heating circuit length (ft.) for | | | |
|----------------------|---|--|-----------|-----------|-----------|
| | | 5BPL2-AL | 10BPL2-AL | 15BPL2-AL | 20BPL2-AL |
| 10 °C (50 °F) | 20 | 639 | 328 | 203 | 147 |
| | 30 | 639 | 442 | 321 | 229 |
| | 40 | 639 | 442 | 344 | 301 |
| -18 °C (0 °F) | 20 | 623 | 311 | 193 | 144 |
| | 30 | 623 | 426 | 308 | 223 |
| | 40 | 623 | 426 | 328 | 288 |
| -40 °C (-40 °F) | 20 | 606 | 314 | 190 | 138 |
| | 30 | 606 | 410 | 301 | 216 |
| | 40 | 606 | 410 | 311 | 282 |

¹ Breaker sizing should be based on the National Electrical Code, Canadian Electrical Code or any other applicable code. The NEC and CEC require ground-fault protection of equipment for each branch circuit supplying electric heating equipment. Check local codes for ground-fault protection requirements.

| Power conversion factors | Power output | Zone length BPL1-AL | | | Zone length BPL2-AL | | |
|--------------------------|--------------|---------------------|------|-----|---------------------|------|------|
| | | in. | mm | in. | mm | | |
| 110V | 0.84 | 5BPL1-AL | 31.5 | 800 | 5BPL2-AL | 48.0 | 1220 |
| 208V | 0.75 | 10BPL1-AL | 27.6 | 700 | 10BPL2-AL | 35.4 | 900 |
| 277V | 1.33 | 15BPL1-AL | 24.6 | 625 | 15BPL2-AL | 29.9 | 760 |
| | | 20BPL1-AL | 19.7 | 500 | 20BPL2-AL | 25.6 | 650 |

Power temperature curves 120V and 240V



Max. pipe/work piece temperatures (120V or 240V)¹

| Product # | W/m | Area classification hazardous ² | | | | | | Safe ³ | |
|-----------|-----|--|-----|-----|-----|-----|-----|-------------------|-----|
| | | T3 | | T2 | | T1 | | °C | °F |
| | | °C | °F | °C | °F | °C | °F | | |
| 5BPL-AL | 15 | 160 | 320 | 289 | 552 | 350 | 662 | 350 | 662 |
| 10BPL-AL | 30 | 100 | 212 | 246 | 475 | 323 | 613 | 323 | 613 |
| 15BPL-AL | 50 | 30 | 86 | 178 | 352 | 276 | 529 | 276 | 529 |
| 20BPL-AL | 70 | - | - | 80 | 176 | 185 | 365 | 185 | 365 |

¹ For 277 V applications contact factory representative

² Surface temperature limits in accordance with EN60079

³ Surface temperature limited by materials of construction (maximum exposure temperature, intermittent)

Models

| Nominal output W/ft. | Product # | | Nominal output W/ft. | Product # | | Cable dimension approx. (mm) |
|----------------------|-----------|-----------|----------------------|-----------|--|------------------------------|
| | 120V | 240V | | 208V | | |
| 5 | 5BPL1-AL | 5BPL2-AL | 4 | 5BPL2-AL | | 10.7 x 7.7 |
| 10 | 10BPL1-AL | 10BPL2-AL | 7.5 | 10BPL2-AL | | 10.7 x 7.7 |
| 17 | 15BPL1-AL | 15BPL2-AL | 12.5 | 15BPL2-AL | | 10.7 x 7.7 |
| 22 | 20BPL1-AL | 20BPL2-AL | 17.5 | 20BPL2-AL | | 10.7 x 7.7 |

When ordering, the quantity on the purchase order is equal to the length in feet of the cable required.

E.g.: To order a 500 ft., cable, write 500 for quantity with product code.

Accessories

See Accessories section.

ELKM- AG-NA

Fluoropolymer Insulated Series Resistance Heating Cable



Features

Outer jacket

- Fluoropolymer.

Bus wire

- Nickel plated copper.

Maximum operating temperature

- 250 °C (482 °F).

Nominal voltage, maximum

- 0-750V, AC and DC voltages applicable.

Output, max.

- 30 W/m.

Note: The output per unit length of the heating cable and the maximum possible operating temperatures depend on the respective application. Please contact the factory for application specific requirements and calculations.

Bending radius, minimum

- 10 mm (0.4 in.).

Installation temperature, minimum

- -60 °C (-76 °F).

Classification

ELKM-AG-NA (non-hazardous area):

- Industrial and commercial applications, Canada USA

NB Environment (hazardous area):

- Class I Division 2 Group A, B, C, D
- Class II Division 1 Group E, F, G
- Class III Division 1
- Class I Zone 1 AEx de IIC T6...T2 / Ex de IIC
- T6...T2 Gb

NC Environment (hazardous area):

- Class I Division 1 Group A, B, C, D

Standards

- FM16NUS0004
- FM16US0124X
- FM16NC0003
- FM16CA0069X

Certification

- IEC/IEEE 60070-30-1, IEEE 515
- CSA 22.2 130-16

Rating

- Wet rated, for outdoor use (WS).

Warranty

- 1-year basic warranty on the heating cable.

Application

- Product line heat tracing (crude oil, natural gas, caustic soda, waste water and product transfer lines), tank and vessel heat tracing, pipe, valve and pump heating, tank container heating, IBC's, storage facility heating, viscosity control and instrumentation heat tracing.

Made to order product, to obtain a quote please contact factory.

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Cable Specifications

| Nominal resistance (Ω/ft.) | Outer diameter approx. | | Weight approx. lb/ft. | Temperature coefficient (x 10 ⁻³ / K) | Nominal resistance (Ω/ft.) | Outer diameter approx. | | Weight approx. lb/ft. | Temperature coefficient (x 10 ⁻³ / K) |
|----------------------------------|------------------------|-----|-----------------------|--|----------------------------|------------------------|-----|-----------------------|--|
| | in. | mm | | | | in. | mm | | |
| 0.0036 (Cu 1.5 mm ²) | 0.23 | 5.9 | 0.0511 | 4.30 | 0.1463 | 0.22 | 5.4 | 0.0412 | 0.18 |
| 0.0152 | 0.21 | 5.4 | 0.0461 | 1.60 | 0.1829 | 0.21 | 5.3 | 0.0394 | 0.18 |
| 0.0198 | 0.22 | 5.5 | 0.0429 | 1.60 | 0.2438 | 0.20 | 5.2 | 0.0375 | 0.18 |
| 0.0244 | 0.23 | 5.9 | 0.0491 | 0.90 | 0.3048 | 0.21 | 5.3 | 0.0394 | 0.04 |
| 0.0305 | 0.22 | 5.7 | 0.0461 | 0.90 | 0.4481 | 0.20 | 5.2 | 0.0370 | 0.04 |
| 0.0479 | 0.22 | 5.7 | 0.0459 | 0.45 | 0.5334 | 0.20 | 5.2 | 0.0368 | 0.04 |
| 0.0549 | 0.21 | 5.4 | 0.0404 | 0.90 | 0.5791 | 0.22 | 5.4 | 0.0402 | 0.40 |
| 0.0610 | 0.22 | 5.5 | 0.0429 | 0.45 | 0.8839 | 0.20 | 5.2 | 0.0374 | 0.40 |
| 0.0792 | 0.21 | 5.4 | 0.0408 | 0.45 | 1.2192 | 0.20 | 5.1 | 0.0356 | 0.40 |
| 0.0853 | 0.21 | 5.3 | 0.0388 | 0.38 | 1.4326 | 0.20 | 5.0 | 0.0349 | 0.15 |
| 0.1036 | 0.21 | 5.3 | 0.0386 | 0.45 | 1.8288 | 0.20 | 5.0 | 0.0343 | 0.20 |
| 0.1097 | 0.20 | 5.2 | 0.0382 | 0.45 | 2.1336 | 0.19 | 5.0 | 0.0336 | 0.15 |
| 0.1311 | 0.23 | 5.5 | 0.0422 | 0.18 | 2.4384 | 0.19 | 4.9 | 0.0332 | 0.15 |

Weight tolerances are possible for manufacturing reasons.

Resistance tolerance: +/- 5 %.

For applications with fixed external diameter, please contact the factory.

Cables shall neither intersect nor contact.

Ground fault protection device 30 mA required for each circuit.

Options

| Product # | Environment | Description |
|------------------|-------------|--|
| EL-HAZELECT-AG | NC | Connection kit 1/2" NPT Class I Div 1 and 2 Group ABCD, Class II Div 1 and 2 Groups EFG, Class III, Class I Zone 1 Group IIC |
| ELVB-AG-NA-NB-NC | NA/NB/NC | Splice kit for ELKM-AG-NA all environments (set of 2) |
| ELVB-NA-38 | NA | Cable gland connection kit for ELKM-AG-NA NEC/CEC 3/8" NPT non-hazardous area |
| ELVB-NA-M12 | NA | Cable gland connection kit for ELKM-AG-NA NEC/CEC M12 x 1.5 non-hazardous area |
| ELVB-NB-12 | NB | Cable gland connection kit for ELKM-AG-NA NEC/CEC 1/2" NPT hazardous area |
| ELVB-NB-M16 | NB | Cable gland connection kit for ELKM-AG-NA NEC/CEC M16 x 1.5 hazardous area |

Made to order, please contact factory for design assistance.

ELKM-AG-NA may be supplied on spools and field terminated, provided the following conditions are met:

Heating circuit design to be carried out or approved by the factory.

Only Eltherm supplied and certified termination kits may be used.

Heating circuit installation and start-up to be performed by qualified personnel only.

Eltherm product and approval markings to be applied to product.

Product description code (example)

Product # **ELKM-AG-NA-00549**

Product Family _____

ELKM-AG-NA: Normal Environment _____

Nominal resistance _____
(without the dot ".")

Made to order product, to obtain a quote please contact factory.

For hazardous area

ELKM-AG-NA cable is approved for all environments.

For hazardous area applications please refer to the Options table to select the proper termination kit.

NB: Class 1 Division 2

NC: Class 1 Division 1



MI

Mineral Insulated (M.I.) Cable Assembly - One and Two Conductor

Features

Available sheath

- C: Bare copper.
- R: LSZH¹ Jacketed copper.
- SS: 825 Alloy seamless sheath.

Nominal voltages

- 120 to 480V

Temperature ratings

- See table.

Fire resistant

- M.I. heating cable is made of inorganic materials.
- It will not burn or support combustion.

Corrosion resistant

- LSZH Jacketed cables and 825 Alloy cables are corrosion resistant.
- Flexible, no degradation and low installation cost.

Standard cold lead lengths

- 20' (6 m) 19-strand THWN cold leads are standard on all M.I. heating cable assemblies.
- If longer cold leads are needed, specify at time of order. Cold lead can be of any length up to 200' (61 m).

Made to order product, to obtain a quote please contact factory.

¹ LSZH Low Smoke Zero Halogen that is made of non-halogenic thermoplastic compounds that inhibit smoke and toxic fumes when exposed to flames or other sources of extreme heat. Not available with stainless steel Alloy 825.





M.I. heating cable assembly base kit (supplied w/each M.I. heating cable assembly)

- Thermal Gradient (TG) section.
- THWN 19-strand cold leads.
- Pressure connectors.
- "A", "T", or "C" conduit body with gasket and cover.
- Delta dry (water repellent powder).
- Duct seal.
- Installation instructions.
- Factory assembled and tested.

Cold lead wire size (Chart 1)

| Amps | AWG | Type | 1 Conductor conduit body type | 2 Conductor conduit body type |
|-------|-----|----------|-------------------------------|-------------------------------|
| 0-16 | 12 | Stranded | T | C |
| 16-24 | 10 | | T | C |
| 24-32 | 8 | THWN | A | Not available |
| 32-40 | 6 | | A | Not available |

M.I. heating cable assembly splice kits

- Are available. Call Delta-Therm.

Application chart and recommendations (Chart 2)

| Primary application | Application type | Prefix | Target watts | Target spacing | Target cable configuration | Standard thermal gradient | Standard cold leads | Listing / Certification |
|-----------------------|-------------------------|--------|--------------|----------------|----------------------------|---------------------------|---------------------|-------------------------|
| | | | | in. | | ft. | ft. | |
| Snow melting | Pedestrian | S | 27 | 6 | Z1C | 2.5 | 20 | UL/CSA |
| | Vehicular | S | 22.5 | 6 | Z1C | 2.5 | 20 | UL/CSA |
| | Hangar door | H | 25 | 6 | Z2C | 2.5 | 20 | UL/CSA |
| Roof/Gutter | Metal | M | 8 | 6 | 2C | 5 | 20 | UL/CSA |
| | Plastic composite | R | 6 | 6 | Z2C | 5 | 20 | UL/CSA |
| Pipe/Tank trace | External | P | See design | 6 | 2C | 5 | 20 | UL/CSA |
| | Internal ¹ | IP | See design | 6 | 2C | 5 | 20 | CSA |
| Permafrost prevention | In conduit ¹ | T | 12 | 48 | 2C | 3 | 20 | CSA |
| | Direct burial | F | 12 | 48 | Z1C | 3 | 20 | UL/CSA |
| Other | Custom | O | Custom | Custom | Open | Custom | 20 | Not listed |

¹ Please contact factory for information.

Cable configurator (Chart 3)

| Cable | # Conductors | Suffix | Designation | Voltage rating | Sheath | Max output air | Max output concrete | Max. temp. limit degrees °F | Max. amp./ Heater |
|-----------------|--------------|--------|-------------|----------------|-------------|----------------|---------------------|-----------------------------|-------------------|
| Bare copper | 1 | C | 1C | 600 | Cooper | 22 | 30 | 392 | 40 |
| Bare copper | 2 | C | 2C | 300 | Cooper | 22 | 30 | 392 | 24 |
| Jacketed copper | 1 | R | Z1C | 600 | LSZH copper | 8 | 30 | 194 | 40 |
| Jacketed copper | 2 | R | Z2C | 300 | LSZH copper | 8 | 30 | 194 | 24 |
| Alloy 825 | 1 | SS | S1C | 600 | 825 | 58 | 58 | 1100 | 40 |
| Alloy 825 | 2 | SS | S2C | 600 | 825 | 58 | 58 | 1100 | 24 |

NOTE: HDPE has been replaced with LSZH (Low Smoke Zero Halogen) covering.

Cable assemblies (Chart 4)

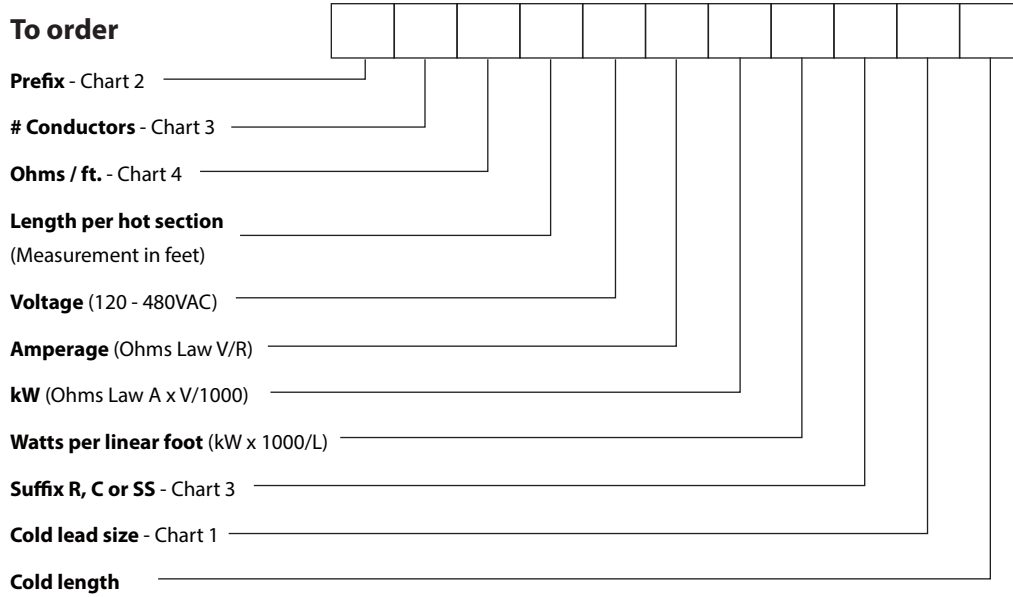
| | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 Conductor CU-LSZH | Ohms/ft. | 0.610 | 0.390 | 0.300 | 0.200 | 0.150 | 0.105 | 0.080 | 0.060 | 0.040 | 0.030 | 0.020 | 0.010 | - | - | - | - | - | - | |
| | Voltage Rating | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | - | - | - | - | - | - | |
| 2 Conductor CU-LSZH ¹ | Ohms/ft. | 0.800 | 0.600 | 0.400 | 0.300 | 0.200 | 0.125 | 0.100 | 0.070 | 0.044 | 0.028 | - | - | - | - | - | - | - | - | |
| | Voltage Rating | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 600 | 600 | 600 | - | - | - | - | - | - | - | - | |
| 1 Conductor Alloy 825 | Ohms/ft. | 2.0 | 1.60 | 1.30 | 1.00 | 0.850 | 0.700 | 0.500 | 0.280 | 0.200 | 0.150 | 0.118 | 0.0732 | 0.0581 | 0.0467 | 0.0366 | 0.0290 | 0.0231 | 0.0183 | 0.0145 |
| | Voltage Rating | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 |
| 2 Conductor Alloy 825 | Ohms/ft. | 11.00 | 9.00 | 6.00 | 4.14 | 2.00 | 1.15 | 0.700 | 0.505 | 0.286 | 0.200 | 0.150 | 0.100 | 0.0775 | 0.0561 | 0.0402 | 0.0281 | 0.0200 | - | - |
| | Voltage Rating | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | - | - |

¹ Some 2-conductor M.I. heating cable assemblies are limited to 277VAC.



Product description code

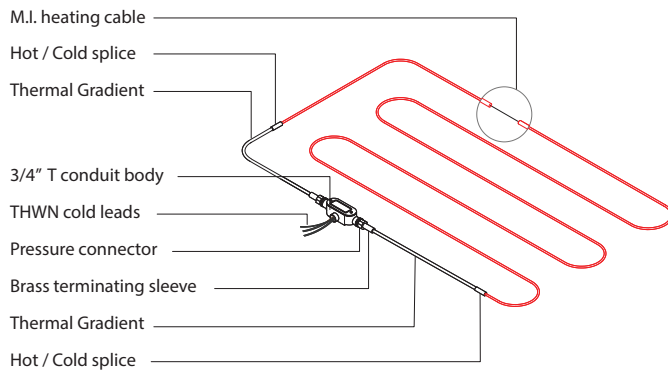
To order



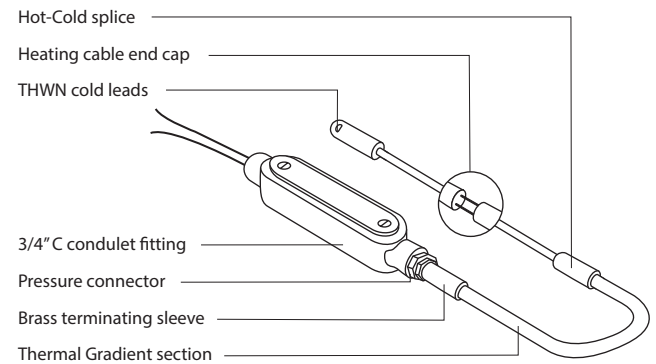
Cold length
 (Length required to reach junction box. NOTE: Voltage drop not to exceed 3%)

Made to order product, to obtain a quote please contact factory.

Detail 1. One conductor cable assembly



Detail 2. Two conductor cable assembly





M.I. Mineral Insulated Alloy 825
Heat trace cable

One and Two Conductor

Delta-Therm seamless Alloy 825 sheath was developed to meet the demands of corrosive environments and high temperature applications. Delta-Therm uses only seamless Alloy 825 sheathing to avoid the potential problems associated with seam-welded tube.

Alloy 825 is resistant to reducing environments, stress corrosion and oxidizing environments. The relatively high nickel content of alloy 825, plus molybdenum and copper, makes it considerably more resistant to reducing environments (such as sulfuric or phosphoric acids) than most of the common stainless steels. It also effects a high resistance to stress corrosion cracking in chloride or alkaline environments. The chromium content, in combination with the nickel, makes the alloy resistant to a variety of oxidizing environments such as nitric acid solutions, nitrates and oxidizing salts.

Alloy 825 can be used at temperatures up to 1100 °F (800 °C) in normal atmospheres.

Alloy 825 limiting chemical composition,
% by WT:




| | |
|------------|-------------|
| Nickel | 38 - 46 |
| Carbon | 0.05 max. |
| Manganese | 1.0 max. |
| Iron | Balance |
| Sulfur | 0.03 max. |
| Silicon | 0.5 max. |
| Copper | 1.5 - 3.0 |
| Chromium | 19.5 - 23.5 |
| Aluminum | 0.2 max. |
| Titanium | 0.6 - 1.2 |
| Molybdenum | 2.5 - 3.5 |

Alloy 825 heat trace cable quick reference guide¹







| Alloy | Description |
|--------------------------|---|
| INCOLOY Alloy 825 | Excellent resistance to wide variety of corrosives. |
| Nickel - Iron - Chromium | Resists pitting and intergranular type corrosion, reducing acids and oxidizing chemicals. |


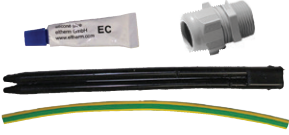

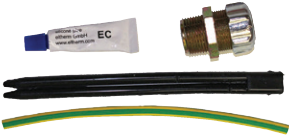
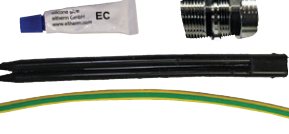



| Nominal chemical composition % (major element) | | | | Corrosion resistance | | | | | | | | | | | | |
|---|------|----------|---------------------|---|--------------------|------------------|----------------------|-------------------|--------------------|----------------|---|---------|-------|----------|----------------------|-----|
| Nickel (+Cobalt) | Iron | Chromium | Other | G-E = Good to excellent NR = Not recommended | | | | | | | A = Acceptable X = Check for specific data | | | | | |
| | | | | Oxidation | Carburi- zation | Sulfuric Acid | Hydrochloric Acid | Hydro- fluoric | Phosphoric Acid | Nitric Acid | Organic Acid | Alkalis | Salts | Seawater | Chloride Cracking | |
| 42 | 30 | 21.5 | Mo 3.0 Cu 2.2 | G-E | G-E | G-E | G-E | G-E | G-E | G-E | G-E | G-E | G-E | G-E | G-E | G-E |

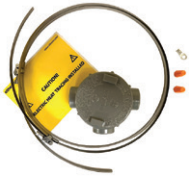
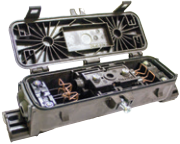
¹ Excerpt from Huntington Alloys Publication 78-348-2.









| | Product # | Description |
|---|-----------------|---|
|  | ELVB-SRAM-34-ST | Power connection with steel/zinc cable gland/fitting, 3/4" NPT non-hazardous location |
|  | EL-ECM | End termination |
|  | KIT-OSR-ELSR-MA | End and power termination kit with warning sticker |




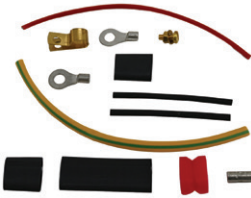
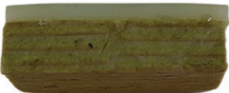



| | Product # | Description |
|---|---------------------------|---|
|  | ELVB-SRAM-34-ST | Power connection with steel/zinc cable gland/fitting, 3/4" NPT non-hazardous location |
|  | EL-ECMF | End termination |
|  | KIT-OSR-ELSR-MA-BF | End and power termination kit with warning sticker |
|  | KIT-OSR-ECA-MABF-PH-FIT | Brass gland cable fitting 3/4" NPT |
|  | KIT-OSR-MABF-PH-112-CTSOD | Quick connect plumbing kit for 1 1/2" OD polyethylene CTS pipes |
| | KIT-OSR-MABF-PH-114-CTSOD | Quick connect plumbing kit for 1 1/4" OD polyethylene CTS pipes |
| | KIT-OSR-MABF-PH-1-CTSOD | Quick connect plumbing kit for 1" OD polyethylene CTS pipes |
|  | KIT-OSR-MABF-PH-112-ID | Quick connect plumbing kit for 1 1/2" ID polyethylene pipes |
| | KIT-OSR-MABF-PH-114-ID | Quick connect plumbing kit for 1 1/4" ID polyethylene pipes |
| | KIT-OSR-MABF-PH-1-ID | Quick connect plumbing kit for 1" ID polyethylene pipes |
| | KIT-OSR-MABF-PH-34-ID | Quick connect plumbing kit for 3/4" ID polyethylene pipes |

| | Product # | Description |
|---|-----------------|---|
|  | ELVB-SRAN | Power connection without cable gland |
|  | ELVB-SRAN-12-PA | Power connection with plastic/PA12 cable gland/fitting, 1/2" NPT non-hazardous location |
|  | ELVB-SRAN-34-PA | Power connection with plastic/PA12 cable gland/fitting, 3/4" NPT non-hazardous location |
|  | ELVB-SRAN-34-ST | Power connection with steel/zinc cable gland/fitting, 3/4" NPT non-hazardous location |
|  | ELVB-SREX-34-HT | Power connection with nickel plated cable gland 3/4" NPT hazardous location |
|  | EL-ECN-EX | End termination |
|  | KIT-OSR-ELSR-NA | End and power termination kit with warning sticker |
|  | EL-SPN-16 | Heat shrink splice kit suitable for ELSR-NA and cold lead connections |

| | Product # | Description |
|---|-----------|--|
|  | ECA-JB1 | Junction box for single connection c/w label and fastener |
|  | ECA-JB2 | Junction box for double connection c/w label and fastener |
|  | ELAK-EX-3 | Junction box with pipe mounting stand for non-hazardous (ordinary) and hazardous locations |
|  | ELAK-5-7 | Junction box wall mount in antistatic polyamide (PA) for connection up to two cables |
|  | EL-CLIC-S | Quick connector for direct connection or cold lead connections of 1 to 3 cables |
|  | EL-CLIC-P | Quick connector with supply lead, for 1 to 3 cables |







| | Product # | Description |
|---|---------------|---|
|  | TWISTO-N-B-PK | Power connection kit with 5' (1.5 m) power cable and end seal |
|  | TWISTO-N-B-S | Splice kit for connecting two heating cables |
|  | TWISTO-N-B-T | T-junction kit for 3 heating cables |
|  | TWISTO-N-B-PS | Heating cable powered splice kit with 5' (1.5 m) power cable |
|  | TWISTO-N-B-PT | T-junction powered kit for 3 heating cables with 5' (1.5 m) power cable |
|  | TWISTO-N-B-X | Splice kit X-Branch for 4 heating cables |
|  | TWISTO-N-B-P | Heating cable powered connection kit with 5' (1.5 m) power cable without end seal |
|  | IEB-P | Insulation entry bushing |

| | Product # | Description |
|---|-------------|--|
|  | PBS-220-A | High profile single entry power connection kit with stand and junction box on pipe with 10 AWG terminals |
|  | ELL-220-A | High profile end seal kit on pipe with red light |
|  | CAK-AH-A | Cold applied kit for off pipe M20 |
|  | HAK-AH-A | Heat shrink kit for on pipe stand |
|  | BPL-BP | Thermo barrier pad |
|  | BPL-BRACKET | Mounting brackets, qty 220 |

| | Product # | Description |
|---|-------------|---|
|  | PBS-200-A | High profile single entry power connection kit for PSB/MSB/HSB cable with stand and junction box on pipe with 10 AWG terminals <i>For complete kit contents and approvals please see data sheets available on our website</i> |
| | PBS-200-A10 | High profile single entry power connection kit for PSB/MSB/HSB cable with stand and junction box on pipe with 6 AWG terminals <i>For complete kit contents and approvals please see data sheets available on our website</i> |
|  | PBS-300-A | High profile single entry power connection kit for PSB/MSB/HSB cable with stand and junction box off pipe with 10 AWG terminals <i>For complete kit contents and approvals please see data sheets available on our website</i> |
|  | PBM-200-A | High profile multiple entry power connection kit for PSB/MSB/HSB cable with stand and junction box on pipe with 8 AWG terminals <i>For complete kit contents and approvals please see data sheets available on our website</i> |
|  | PBM-300-A | High profile multiple entry power connection kit for PSB/MSB/HSB cable with stand and junction box off pipe with 10 AWG terminals <i>For complete kit contents and approvals please see data sheets available on our website</i> |
|  | CAK-SRP-PA | Connection kit for ordinary locations NPT 1/2 poly gland for PSB Cable |
|  | CAK-SRM-HA | Connection kit for ordinary locations NPT 1/2 metal gland for MSB/HSB cable |
|  | PBS-SPA | Small pipe adapter for power connection with PBS kits |
|  | PBM-SPA | Small pipe adapter for power connection with PBM kits |






Accessories

PSB / MSB / HSB Cables



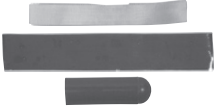

| | Product # | Description |
|---|-----------|---|
|  | ELL-200-A | High profile end seal kit for PSB/MSB/HSB cable on pipe with red light <i>For complete kit contents and approvals please see data sheets available on our website</i> |
|  | ELL-300-A | High profile end seal kit for PSB/MSB/HSB cable off pipe with red light <i>For complete kit contents and approvals please see data sheets available on our website</i> |
|  | ELS-200 | High profile end seal kit for PSB/MSB/HSB cable on pipe with weather head <i>For complete kit contents and approvals please see data sheets available on our website</i> |
|  | CAK-E5-A | Silicone end seal kits for PSB/MSB/HSB cable with 1x RTV (pkg of 5) |
| | CAK-E10-A | Silicone end seal kits for PSB/MSB/HSB cable with 2x RTV (pkg of 10) |
|  | CAK-D5-A | Cold applied kit on pipe stand for PSB/MSB/HSB cable <i>For complete kit contents and approvals please see data sheets available on our website</i> |
|  | CAK-PH-A | Cold applied kit off pipe M20 for PSB/MSB/HSB cable |




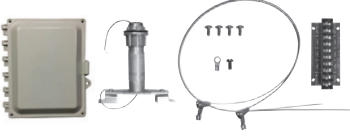

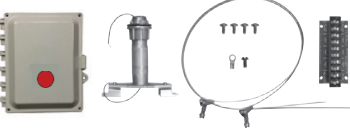
Accessories

PSB / MSB / HSB Cables

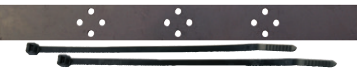

| | Product # | Description |
|--|-------------|---|
|  | IEB-H | Insulation entry bushing for HSB/MSB cable |
|  | IEB-PT | Insulation entry bushing for Pt100 Ex sensor (M25) |
|  | EHT-CKT-TAG | Heat tracing phenolic circuit tags for PSB/MSB/HSB cable |
|  | EHT-TAG | Heat tracing stainless steel circuit tags for PSB/MSB/HSB cable |
|  | TW-05 | Stainless steel tie wire 1100' for PSB/MSB/HSB cable |



| | Product # | Description |
|--|---------------|---|
|  | KIT-PCK-PT/PF | Power and end termination kit for ordinary and hazardous locations Class I, Division II, Group B, C and D <i>(For installation details please refer to instruction manual)</i> |
|  | KIT-SPK-PT/PF | Splice connection kits, for under insulation splicing applications with maximum exposure temperature of 200 °F (93 °C). Minimum ambient temperature install is -5 °F (-20 °C). Requires electrical tape not supplied with kit <i>(For installation details please refer to instruction manual)</i> |
|  | KIT-ETK-PT/PF | End termination kit Material for one end termination <i>(For installation details please refer to instruction manual)</i> |
|  | KIT-PT-T3SL | 3-way tee splice kit for splicing in appropriately rated junction box (not supplied with kit) <i>(For installation details please refer to instruction manual)</i> |

| | Product # | Description |
|---|----------------|--|
|  | KIT-PC1 | Polycarbonate enclosure for on pipe installation compatible with KIT-PCK-PT/PF Suitable for wet locations |
|  | KIT-PC2 | Polycarbonate enclosure for on pipe installation compatible with KIT-SPK-PT/PF and KIT-ETK-PT/PF Suitable for wet locations |
|  | KIT-PC3 | Polycarbonate 8"x6"x4" lockable NEMA 4X enclosure for 3-way splicing ordinary locations |
|  | KIT-PC3-TB | Polycarbonate 8"x6"x4" lockable NEMA 4X enclosure for power connection, splicing or 3-way splicing ordinary locations c/w terminal block |
|  | KIT-PC3-LED | Polycarbonate 8"x6"x4" lockable NEMA 4X enclosure c/w LED monitor power on indication light, ordinary locations |
|  | KIT-PC3-TB-LED | Polycarbonate 8"x6"x4" lockable NEMA 4X enclosure c/w LED monitor power on indication light and terminal block, ordinary locations |

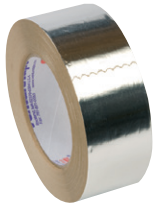




Accessories
Roof / Gutter Cables





















| | Product # | Description |
|---|-----------------------|--|
|  | ELB-RCLIP | Roof clips for cable, qty 25 |
|  | KIT-ELB-20 | Stainless steel downspout 90° mounting plate with nylon ties |
|  | KIT-ELB-21 | Stainless steel gutter mounting plate with nylon ties |
|  | KIT-DSR-DRD | DSR series kit, roof drain de-icing bracket kit |
|  | KIT-DSH-CU | Downspout hanger copper kit with nylon ties |
|  | RM-25-AL ¹ | Three prong aluminum clips for metal roof |
|  | RM-25-CU ² | Three prong copper clips for copper roof |
|  | SB-190 ³ | 10 oz tube of everseal adhesive for roof clips |
|  | PAD-VHB | Package of 25, 2" x 3" adhesive pads for RM-25-AL clips |

¹ requires PAD-VHB

² Product is soldered to roof

³ Cannot be used with copper clips or on copper roofing

| | Product # | Description |
|---|-----------|--|
|  | T-AL200 | 2" x 150' aluminium foil adhesive tape |
| | T-AL400 | 4" x 150' aluminium foil adhesive tape |
|  | T-F50 | 1/2" x 180' fiberglass tape, rated 311 °F |
| | T-F50H | 1/2" x 108' fiberglass tape, rated 356 °F |
| | T-F75 | 3/4" x 180' fiberglass tape, rated 311 °F |
|  | DT-CL-L | Caution label – Large 9" x 2" yellow |
|  | DT-CL-S | Caution label – Small 4" x 1.5" yellow |
|  | DT-PS1-4 | Pipe strap, 1" to 4" pipe stainless steel |
| | DT-PS3-8 | Pipe strap, 3" to 8" pipe stainless steel |
| | DT-PS8-20 | Pipe strap, 8" to 20" pipe stainless steel |

| | Product # | Description |
|---|-------------------------------|--|
|  | OTH3600-GA ^{2,3} | Non programmable electronic thermostat for floor heating system 15 Amp., 120/208/240V, Class A, GFCI mA ¹  Compliance with standard CAN/CSA-C828-13 |
|  | OTH3600P-GA ^{2,3} | Programmable electronic thermostat for floor heating system 15 Amp., 120/208/240V, Class A, GFCI mA ¹  Compliance with standard CAN/CSA-C828-13 |
|  | OTH3600-GA-ZB ^{2,3} | Smart thermostat - Zigbee for floor heating system 15 Amp., 120/208/240V, Class A, GFCI mA ¹   CSA-C828-13 Performance Standard  |
|  | TH1310WF ^{2,3} | Smart thermostat – Wi-Fi for floor heating system 15 Amp., 120/208/240V, Class A, GFCI mA ¹   CSA-C828-13 Performance Standard      |
|  | TR1310-120-240GA ³ | Slave unit for floor heating system 15 Amp., 120/208/240V, Class A, GFCI mA ¹ |
|  | GT130 ⁴ | Smart gateway that provides remote access to the OTH3600-GA-ZB   |

¹ GFCI: Ground fault circuit interrupter.

² 15' (4.6 m) floor sensor included.



³ Standard color is white.

⁴ Standard color is black.

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| | Product # | Description |
|---|------------|--|
|  | ETO2 | <p>Fully automatic and economical dual-zone electronic controller, suitable for controlling electric heating cables in one or two zones, 1-zone: 3 x 16A, 2-zone: 2 x 16A, 120V to 240V</p> <p>Suitable for use with GFEP panels</p> |
|  | ETO2-BOX | <p>Mounting box dual-zone electronic controller ETO2</p> |
|  | ETOG | <p>Ground sensor to detect humidity and temperature with 33' (10 m) side entry cable</p> |
|  | ETOG-56 | <p>Ground sensor to detect humidity and temperature with 80' (25 m) bottom entry cable</p> |
|  | ETOK-1 | <p>Mounting tube for ground sensor ETOG-56</p> |
|  | ETOR-55 | <p>Gutter sensor to detect humidity with 33' (10 m) cable</p> |
|  | ETF-744-99 | <p>24V outdoor sensor for measuring temperature</p> |


| | Product # | Description |
|---|-----------|---|
|  | DS-2C | Aerial mounted controller with sensor to detect humidity and temperature, 30A: 100V to 277V, 20A: 28VDC |
|  | DS-5C | Aerial mounted controller with sensor to detect humidity and temperature, 2X 30A, 100V to 277V |
|  | DS-8C | Aerial mounted controller with sensor to detect temperature and a sensor to detect humidity with 10' (3 m) cable, 30A, 100V to 277V |
|  | DS-9C | Aerial mounted controller with sensor to detect temperature and a sensor to detect humidity with 10' (3 m) cable, 2 X 30A, 100V to 277V |
|  | EX-50 | 50' (15 m) extension kit, with connection fittings for humidity sensor |
|  | CDP-2 | Interior controller and display for DS controllers |






| | Product # | Description |
|---|-----------------|---|
|  | APS-3C-120V | Automatic snow and ice melting control system 120V, 24A |
| | APS-3C-208-240V | Automatic snow and ice melting control system 208-240V, 24A |
|  | APS-4C-208-240V | Automatic snow and ice melting control system 208-240V, 50A c/w built-in adjustable 30 mA GFEP |
| | APS-4C-277V | Automatic snow and ice melting control system 277V, 50A c/w built-in adjustable 30 mA GFEP |
| | APS-4C-277-480V | Automatic snow and ice melting control system 277-480V 3-phase, 50A c/w built-in adjustable 30 mA GFEP |
|  | EUR-5A | 24V controller for snow and ice melting system c/w RCU-3 remote control unit |
|  | GF-PRO | NEMA 4X dual sensor capability controller for snow and ice melting system 100-277V, 30A c/w built-in 30 mA GFEP |



| | Product # | Description |
|---|-----------------|--|
|  | LCD-8-100-240V | Configurable aerial mounted snow and ice melting system controller |
|  | PD-PRO | NEMA 3R dual sensor capability controller for snow and ice melting system 100-277V, 30A |
|  | RCU-3 | Remote control unit for APS-3C, PD-PRO and EUR-5A |
|  | RCU-4 | Remote control unit for APS-4C, SC-40C and GF-PRO |
| | SC-40C-208-240V | Satellite contactor for modular snow and ice melting control system 208-240V, 50A c/w built-in adjustable 30 mA GFEP |
|  | SC-40C-277V | Satellite contactor for modular snow and ice melting control system 277V, 40A c/w built-in adjustable 30 mA GFEP |
| | SC-40C-277-480V | Satellite contactor for modular snow and ice melting control system 277-480V 3-phase, 50A c/w built-in adjustable 30 mA GFEP |
|  | SNOW-OWL | Aerial mounted snow sensor 24V |

| | Product # | Description |
|--|------------------|---|
| | GIT-1 | Gutter and downspout de-icing sensor to detect humidity and temperature compatible with GF-PRO and PD-PRO controllers |
| | SIT-6E | Ground sensor to detect humidity and temperature for APS control panel (requires 23832-HOUSING) |
| | 23832-HOUSING | Ground sensor housing for HSC-24 and SIT-6E |
| | 25076-THERMISTOR | High temperature sensor 100k ohms c/w 20' (6 m) cable (No disc.) |




| | Product # | Description |
|---|-------------|---|
|  | A19QSC-1C | Freeze protection NEMA 4X ambient or line sensing thermostat temperature control 120-277V, 22A, SPST c/w with 10' (3 m) capillary |
|  | A421ABC-02C | NEMA 1 adjustable electronic temperature control 120V 15A, 208V 10A or 240V 10A, SPDT c/w A99BB-200C PTC sensor with 6.5' (2 m) lead Range -40 °C to 100 °C (-40 °F to 212 °F) |
|  | A421AEC-02C | NEMA 4X adjustable electronic temperature control 120V 15A, 208V 10A or 240V 10A, SPDT c/w A99BB-200C PTC sensor with 6.5' (2 m) lead Range -40 °C to 100 °C (-40 °F to 212 °F) |
|  | A99BC-1500C | 49' (15 m) thermistor lead |
| | A99BB-600C | 19.7' (6 m) thermistor lead |

| | Product # | Description |
|---|-------------|---|
|  | ELTC-14-RTD | Digital temperature control 20A at 90-260V, including 3-wire RTD (Pt-100) sensing element is 5 x 50 mm with 5 m of fluoropolymer lead wires, range 0 °C to 250 °C (32 °F to 482 °F) Suitable for used with GFEP panels |

| | Product # | Description | | | | | | | | | | | | | | |
|---|---------------------------|--|-----------|--|----|----------|-------------------------|-------------------------|----------------|----------------|--------------------------|--------------------------|----------------|----------------|--|---------------------------|
|  | E100-13545 | <p>Nema 4X epoxy painted die cast aluminum line sensing thermostat 120-480V, 22A, SPDT c/w 10' (3 m) stainless steel capillary</p> <p>Range -3.8 °C to 162.7 °C (25 °F to 325 °F)</p> | | | | | | | | | | | | | | |
|  | B100-13546 | <p>Nema 4X epoxy painted die cast aluminum ambient sensing thermostat 120-480V, 22A, SPDT c/w stainless steel stem sensor</p> <p>Range -40 °C to 71 °C (-40 °F to 160 °F)</p> | | | | | | | | | | | | | | |
|  | E121-13273 | <p>Explosion -proof NEMA 4X 7, 9 and IP66 epoxy painted die cast aluminum line sensing thermostat temperature control 120-480V, 22A, SPDT c/w 10 ft. (3 m) stainless steel capillary</p> <p>Range -3.8 °C to 162.7 °C (25 °F to 325 °F)</p> <table border="1"> <thead> <tr> <th colspan="2">Approvals</th> </tr> </thead> <tbody> <tr> <td>UL</td> <td>CSA / FM</td> </tr> <tr> <td>Class I, Division 1 & 2</td> <td>Class I, Division 1 & 2</td> </tr> <tr> <td>Grps. B, C & D</td> <td>Grps. B, C & D</td> </tr> <tr> <td>Class II, Division 1 & 2</td> <td>Class II, Division 1 & 2</td> </tr> <tr> <td>Grps. #, F & G</td> <td>Grps. E, F & G</td> </tr> <tr> <td></td> <td>Class III, Division 1 & 2</td> </tr> </tbody> </table> | Approvals | | UL | CSA / FM | Class I, Division 1 & 2 | Class I, Division 1 & 2 | Grps. B, C & D | Grps. B, C & D | Class II, Division 1 & 2 | Class II, Division 1 & 2 | Grps. #, F & G | Grps. E, F & G | | Class III, Division 1 & 2 |
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| Grps. #, F & G | Grps. E, F & G | | | | | | | | | | | | | | | |
| | Class III, Division 1 & 2 | | | | | | | | | | | | | | | |
|  | B121-13272 | <p>Explosion -proof NEMA 4X 7, 9 and IP66 epoxy painted die cast aluminum ambient sensing thermostat temperature control 120-480V, 22A, SPDT c/w stainless steel stem</p> <p>Range -9 °C to -60 °C (15 °F to 140 °F)</p> <table border="1"> <thead> <tr> <th colspan="2">Approvals</th> </tr> </thead> <tbody> <tr> <td>UL</td> <td>CSA / FM</td> </tr> <tr> <td>Class I, Division 1 & 2</td> <td>Class I, Div. 1 & 2</td> </tr> <tr> <td>Grps. B, C & D</td> <td>Grps. B, C & D</td> </tr> <tr> <td>Class II, Division 1 & 2</td> <td>Class II, Div. 1 & 2</td> </tr> <tr> <td>Grps. #, F & G</td> <td>Grps. E, F & G</td> </tr> <tr> <td></td> <td>Class III, Div. 1 & 2</td> </tr> </tbody> </table> | Approvals | | UL | CSA / FM | Class I, Division 1 & 2 | Class I, Div. 1 & 2 | Grps. B, C & D | Grps. B, C & D | Class II, Division 1 & 2 | Class II, Div. 1 & 2 | Grps. #, F & G | Grps. E, F & G | | Class III, Div. 1 & 2 |
| Approvals | | | | | | | | | | | | | | | | |
| UL | CSA / FM | | | | | | | | | | | | | | | |
| Class I, Division 1 & 2 | Class I, Div. 1 & 2 | | | | | | | | | | | | | | | |
| Grps. B, C & D | Grps. B, C & D | | | | | | | | | | | | | | | |
| Class II, Division 1 & 2 | Class II, Div. 1 & 2 | | | | | | | | | | | | | | | |
| Grps. #, F & G | Grps. E, F & G | | | | | | | | | | | | | | | |
| | Class III, Div. 1 & 2 | | | | | | | | | | | | | | | |
|  | ECA-E55-R25HT | <p>SPDT, NEMA 4X thermostat in molded aluminum housing, 22A at 120/250/480V, with 10 ft. (3 m) stainless steel bulb and capillary</p> <p>Requires a ground fault circuit interrupter (GFCI) in the electrical panel</p> | | | | | | | | | | | | | | |

| | Product # | Description |
|---|--------------|---|
|  | S1-A | NEMA 4X IP67 electronic single point line sensing heat trace controller 100-277V, 30A c/w built-in 30 mA GFEP and 20' (6 m) lead, 10k ohms thermistor, Wi-Fi, Ethernet, Modbus and BACnet ¹ capabilities |
| | S1-B | NEMA 4X IP67 electronic single point line sensing heat trace controller 100-277V, 30A c/w built-in 30 mA GFEP and 20' (6 m) lead, 10k ohms thermistor, Wi-Fi, Ethernet capabilities |
|  | GATEWAY-PCKG | 24VDC BACnet gateway assembly with power supply NEMA 4X enclosure with 24VDC transformer for S1 Series |
| | GATEWAY | 24VDC BACnet gateway stand alone for S1 Series |

¹ BACnet IP or MS/TP available via preconfigured SMC gateway, sold separately.

| | Product # | Description |
|---|-----------|--|
|  | FPT-130 | NEMA 4X IP66 mechanical single point line sensing heat trace controller 100-277V, 30A c/w built-in 30 mA GFEP and 20' (6 m) lead, 100k ohms at 25 °C (77 °F) thermistor Range -40 °C to 110 °C (-40 °F to 230 °F) |
|  | GPT-130 | NEMA 4X IP66 electronic single point line sensing heat trace controller 100-277V, 30A c/w built-in 30 mA GFEP and 20' (6 m) lead, 100k ohms at 25 °C (77 °F) thermistor Range -40 °C to 110 °C (-40 °F to 230 °F) |
|  | GPT-230 | NEMA 4X IP66 electronic dual point line sensing heat trace controller 100-277V, 2X 30A c/w built-in 30 mA GFEP and 2X 20' (6 m) lead, 100k ohms at 25 °C (77 °F) thermistor Range -40 °F to 110 °C (-40 °C to 230 °F) |



TraceMate™

Advanced NEMA 4X steel, powder coat painted electronic controller. Designed for indoor or outdoor use in non-hazardous and hazardous areas c/w built-in GFEP.

CSA C US
Class I, Division 2, Groups A, B, C, D
Class I, Zone II, Groups IIC

Temperature range -50 °C to 500 °C (-58 °F to 932 °F)
Operating range -40 °C to 50 °C (-40 °F to 122 °F)
LCD Display operating range -20 °C to 50 °C (-4 °F to 122 °F)

| Product # | Description |
|-------------------------|--|
| TM-1SIH1-E5-RTD-A1 | TraceMate™ I GFCI electronic thermostat for single circuit at 120V, 30A |
| TM-1DIH2-E5-RTD-A1 | TraceMate™ I GFCI electronic thermostat for single circuit at 240/208V, 30A |
| TM-1SIH1-E5-RTD-A1-277 | TraceMate™ I GFCI electronic thermostat for single circuit at 277V, 30A |
| TM-2SIH1-E5-RTD | TraceMate™ II GFCI electronic thermostat for dual circuit at 120V, 2 x 30A |
| TM-2SIH1-E5-RTD-277 | TraceMate™ II GFCI electronic thermostat for dual circuit at 277V, 2 x 30A |
| TM-2DIH2-E5-RTD-208-240 | TraceMate™ II GFCI electronic thermostat for dual circuit at 240/208V, 2 x 30A |



MasterTrace¹

Advanced NEMA 4X steel, powder coat painted electronic controller. Designed for use in non-hazardous and hazardous areas c/w built-in GFEP, RS485 type with Modbus © RTU protocol, comes with a 9 tactile keys, polyester faceplate and LCD display.

CSA C US
Class I, Division 2, Groups A, B, C, D
Class I, Zone II, Groups IIC
Class II, Division 2, Groups F & G
Class III

Temperature range -50 °C to 500 °C (-58 °F to 932 °F)
Operating range -40 °C to 50 °C (-40 °F to 122 °F)

| Product # | Description |
|------------|---|
| MS-2101 | MasterTrace single circuit electronic GFCI controller with double pole, 85V to 300V, 30A, with user interface |
| MS-2101-E3 | MasterTrace single circuit electronic GFCI controller with double pole, 85V to 300V, 30A, with user interface, stainless steel housing |
| MS-2102 | MasterTrace double circuit electronic GFCI controller with single pole, 120V or 277V, 2 x 30A, with user interface |
| MS-2102-E3 | MasterTrace double circuit electronic GFCI controller with single pole, 120V or 277V, 2 x 30A, with user interface, stainless steel housing |
| RTD-7 | RTD probe for MasterTrace controller |

¹ Multi-circuit custom MasterTrace control panels are available upon request.



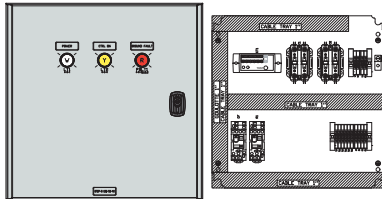
Picture of DT-4P40A-24 shown as example.

DT-XP40A Enclosed Contactor Panels

- Contactor panels with NEMA 1 enclosure:
- Contactor rating 40FLA (50A resistive), 600V max.
 - Contactor coil voltage 120V

| Product # | Description |
|--------------|---|
| DT-4P40A | Enclosed contactor panel 4 circuits 120/277V (2 circuits 208/240/480V), NEMA 1, 1 x 4 poles 50A resistive contactor, control sold separately |
| DT-8P40A | Enclosed contactor panel 8 circuits 120/277V (4 circuits 208/240/480V), NEMA 1, 2 x 4 poles 50A resistive Contactor, control sold separately |
| DT-12P40A | Enclosed contactor panel 12 circuits 120/277V (6 circuits 208/240/480V), NEMA 1, 3 x 4 poles 50A resistive contactor, control sold separately |
| DT-16P40A | Enclosed contactor panel 16 circuits 120/277V (8 circuits 208/240/480V), NEMA 1, 4 x 4 poles 50A resistive contactor, control sold separately |
| DT-4P40A-24 | Enclosed contactor panel 4 circuits 120/277V (2 circuits 208/240/480V), NEMA 1, 1 x 4 poles 50A resistive contactor c/w 24V control transformer, control sold separately |
| DT-8P40A-24 | Enclosed contactor panel 8 circuits 120/277V (4 circuits 208/240/480V), NEMA 1, 2 x 4 poles 50A resistive contactor c/w 24V control transformer, control sold separately |
| DT-12P40A-24 | Enclosed contactor panel 12 circuits 120/277V (6 circuits 208/240/480V), NEMA 1, 3 x 4 poles 50A resistive contactor c/w 24V control transformer, control sold separately |
| DT-16P40A-24 | Enclosed contactor panel 16 circuits 120/277V (8 circuits 208/240/480V), NEMA 1, 4 x 4 poles 50A resistive contactor c/w 24V Control transformer, control sold separately |

Standard color is grey.



GFEP Panels

NEMA 4X (Painted steel) relay control panels c/w a built-in GFPE that can be used for snow melting, de-icing, or heat tracing applications.

Three light indicators mounted on the panel: Power On (White), Control on (Yellow) and Alarm (Red).

We recommend using for snow melting and de-icing applications the ETO2 controller or for heat tracing the ELTC-14-RTD controller, both are sold separately.

| Product # | Description |
|---------------------------|---|
| GFEP-2-120-30-4X | 120V Ground fault panel two 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-2-208-30-4X | 208V Ground fault panel two 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-2-240-30-4X | 240V Ground fault panel two 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-2-277-30-4X | 277V Ground fault panel two 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-2-480-30-4X | 480V Ground fault panel two 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-4-120-30-4X | 120V Ground fault panel four 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-4-208-30-4X | 208V Ground fault panel four 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-4-240-30-4X | 240V Ground fault panel four 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-4-277-30-4X | 277V Ground fault panel four 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-4-480-30-4X | 480V Ground fault panel four 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-6-120-30-4X | 120V Ground fault panel six 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-6-208-30-4X | 208V Ground fault panel six 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-6-240-30-4X | 240V Ground fault panel six 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-6-277-30-4X | 277V Ground fault panel six 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-6-480-30-4X | 480V Ground fault panel six 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-8-120-30-4X | 120V Ground fault panel eight 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-8-208-30-4X | 208V Ground fault panel eight 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-8-240-30-4X | 240V Ground fault panel eight 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-8-277-30-4X | 277V Ground fault panel eight 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-8-480-30-4X | 480V Ground fault panel eight 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-12-120-30-4X | 120V Ground fault panel twelve 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-12-208-30-4X | 208V Ground fault panel twelve 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-12-240-30-4X | 240V Ground fault panel twelve 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-12-277-30-4X | 277V Ground fault panel twelve 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| GFEP-12-480-30-4X | 480V Ground fault panel twelve 30A circuit relay NEMA 4X (Painted steel) controller sold separately |
| Option¹ | |
| -SS | Stainless steel panel option available on order, please contact the factory for lead time |

¹ Custom panels are available on request, please contact factory.

TERMS

Net 30 upon credit approval.

MINIMUM ORDER

No minimum. All new customers will prepay between 50% - 100% of initial order, pending credit reference check.

FREIGHT POLICY

- Freight will be charged on orders of \$9,000.00 list or less.
- Full freight allowed on orders over \$9,000.00 list for domestic ground delivery only.
- Delivery determined when order is placed. For same day shipping, orders must be submitted by 2pm CST.
- Orders ship from Crystal Lake, IL.
- Add \$7.50 S+H for all freight orders.
- Ground shipments to Alaska and Hawaii will be freight allowed providing the order has a List Price value of \$13,000 or greater.

HOLD FOR RELEASE ORDERS

- Orders may be entered for "Hold for Release" for a maximum of 90 days.
- After the initial 90 days, orders will be re-entered based on current price.
- Delta-Therm reserves the right to cancel any order after 90 days.

FIELD-TERMINATED CABLE

- Field terminated self-regulating and constant watt cables are cut to length at no charge.
- Delta-Therm reserves the right to ship +/- 5% of actual cable ordered.
- Delta-Therm will bill for actual cable shipped.
- Shipping weights shown in price list are approximate.

RETURN MERCHANDISE POLICY

- **RMA NUMBERS ARE VALID FOR 30 DAYS FROM DATE OF ISSUE.**
- All product returns must be accompanied by a Return Materials Authorization (RMA) number which can be obtained by calling our customer service. Items must be returned within 90 days of original invoice date.
- To obtain an RMA number you must furnish the original Delta-Therm invoice number at time of request.
- The RMA number must be clearly marked on each shipping container and attached documentation.
- For credit, all material must be in original packaging and in resellable condition.
- Heating cable must be on the original reel, uncut, and still maintain the factory tags.

RESTOCKING FEES

- 75% on standard non-stock products and custom products.
- 20% on standard stock products (in original package).
- 75% on field terminated cables for lengths under 100 ft.
- 75% for custom designs (such as OEM products).

GENERAL POLICIES

- Custom panels may not be returned.
- Special order minimum for non-stock cable: 1,000 ft.
- No anticipatory discounts allowed.
- No material returned without factory authorization in the form of an RMA number.
- Shipping weights shown in price list are approximate.

SERVICES

ENGINEERING SERVICES. ... \$250.00 per hour.
FIELD SERVICES. ... \$250.00 per hour.
(4 hour minimum plus travel expenses)

- Cable testing and wiring inspection site visits.
- On site troubleshooting.
- Pre-installation on site planning meeting.
- Installation training.
- Repair services.
- GFPE Transformer Re-Tap Fee. ... \$130.00

CAD DRAWING SERVICES

Drawing & Revision Time ... \$300.00 per hour

On request, a set of electronic drawings (PDF) including one revision can be supplied at no charge when requested with a purchase order. Charges apply for additional revisions. Submittal drawings can be ordered and credited at the time a purchase order is invoiced for a corresponding project. Charges are referenced above.

ORDERING A DRAWING

PDF files are provided at no charge.

DRAWING SET

The Delta-Therm CAD drawing set typically includes:

- Plan or elevations with product.
- Installation notes and bill of materials.
- General details.
- Control line diagrams.

DRAWING REQUIREMENTS

- Submit the latest AutoCAD (.dwg format) plan or isometric. Files must be scalable.
- Electronic PDF's are accepted but must be scalable with at least one reference dimension.
- Scaled sketches are acceptable if all requirements have dimensions.



PRODUCT TRAINING



ENGINEERING SERVICES



FIELD SERVICES



**SYSTEM WIRING INSPECTION
AND TRAINING VISIT**







TECHNICAL SUPPORT



By **INNOVAIR**
SOLUTIONS

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