

FREEZSTOP REGULAR SELF-REGULATING HEATING CABLE

Flexotherm™ offers FreezStop Regular Self-Regulating Heating Cable for frost protection and temperature maintenance of pipe work and vessels in safe or hazardous locations. FreezStop Regular is suited to protect against freezing up to 85°C. It can be cut to length on site and exact piping lengths can be matched without complicated considerations

FEATURES

- Automatically adjusts heat output in response to increasing or decreasing pipe temperature
- Can be cut-to-length with no wastage
- Will not overheat or burnout, even when overlapped
- Approved for use in non-hazardous, hazardous and corrosive environments
- Full range of controls and accessories
- Available up to 277 VAC
- Safe and reliable

OPTIONS

| Model | Description |
|---------|---|
| FSR - C | Continuous conductive covering of metal braid for non-hazardous areas, hazardous areas, or where traced equipment does not provide an effective earth path. |
| FSR-CT | Thermoplastic outer jacket over a metal braid provides additional protection. |
| FSR-CF | Fluoropolymer outer jacket over a metal braid provides protection where corrosive chemical solutions or vapors may be present. |

INDUSTRIES

- Freeze protection of pipe work and vessels
- Process temperature maintenance
- Heating of roads, ramps, walkways
- Roof and gutter heating
- Under floor heating
- Heating of transportation rails and lines

FREEZSTOP REGULAR

SELF-REGULATING HEATING CABLE

Specification

| | |
|--|---|
| Maximum Continuous Exposure Temperature (Power ON) | 85°C (185°F) |
| Maximum Permissible Exposure Temperature (Power Off) | 85°C (185°F) |
| Minimum Operating Temperature | -65°C (-85°F) |
| Minimum Installation Temperature | -40°C (-40°F) |
| Power Supply | 0-277 VAC |
| Temperature Classification | Up to 40 W/m @ nom voltage - T6 (85°C) Up to 31W/m @ nom voltage powered to 277V - T6 (85°C) >40W/m @ nom voltage - T4 (135°C) >31W/m @ nom 230V powered up to 277V - T4 (135°C) |
| Maximum Resistance of Protective Braiding | 18.2 Ohm/km |

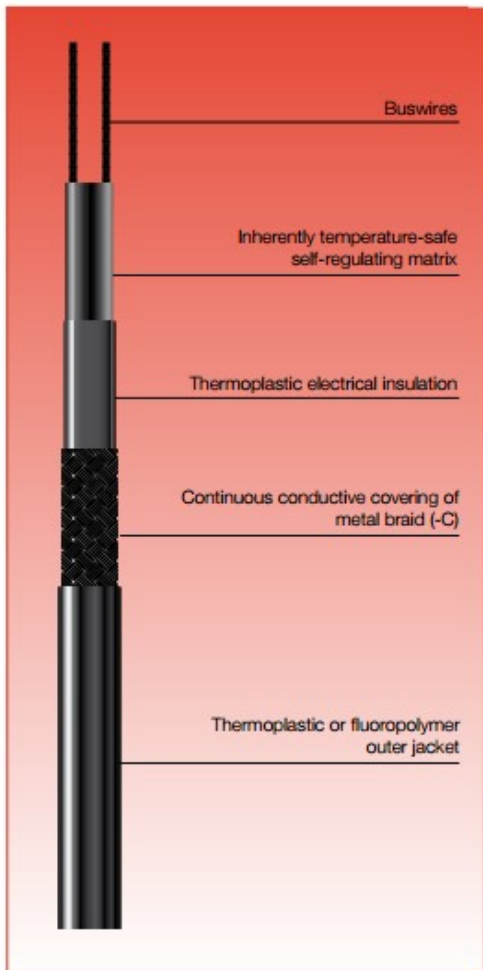
Weights and Dimensions

| Type Ref | Nominal Dimensions (mm) | Weight kg/100m | Min. Bending radius | Gland Size |
|----------|-------------------------|----------------|---------------------|------------|
| FSR | 10.9 x 3.8 | 5.8 | 25mm | M20 |
| FSR - C | 11.8 x 4.7 | 11.2 | 30mm | M20 |
| FSR - CT | 13.1 x 6.0 | 13.1 | 35mm | M20 |
| FSR - CF | 13.1 x 6.0 | 13.4 | 35mm | M20 |

Maximum Length (m) vs. Circuit Breaker Size

| Cat Ref | Start-Up Temp. | 230V 6A | | | | |
|---------|----------------|---------|-----|-----|-----|-----|
| | | 6A | 10A | 16A | 20A | 25A |
| 10FSR | 10°C | 90 | 152 | 198 | - | - |
| | 0°C | 74 | 122 | 196 | 198 | - |
| | -20°C | 50 | 84 | 136 | 170 | 198 |
| | -40°C | 44 | 74 | 118 | 148 | 184 |
| 17FSR | 10°C | 60 | 102 | 154 | - | - |
| | 0°C | 48 | 82 | 130 | 154 | - |
| | -20°C | 40 | 66 | 106 | 132 | 154 |
| | -40°C | 30 | 50 | 80 | 100 | 124 |
| 25FSR | 10°C | 46 | 76 | 122 | 124 | - |
| | 0°C | 36 | 62 | 98 | 122 | 124 |
| | -20°C | 20 | 34 | 56 | 70 | 88 |
| | -40°C | 20 | 32 | 50 | 64 | 80 |
| 31FSR | 10°C | 28 | 46 | 74 | 92 | 110 |
| | 0°C | 20 | 34 | 54 | 66 | 84 |
| | -20°C | 16 | 26 | 40 | 50 | 64 |
| | -40°C | 14 | 24 | 38 | 48 | 60 |
| 40FSR | 10°C | 20 | 34 | 56 | 70 | 88 |
| | 0°C | 14 | 24 | 40 | 50 | 62 |
| | -20°C | 12 | 20 | 30 | 38 | 48 |
| | -40°C | 10 | 18 | 30 | 36 | 46 |

For use with Type C circuit breaker to IEC 60898



FREEZSTOP LITE

SELF-REGULATING HEATING CABLE

Flexotherm™ offers FreezStop Lite Self-Regulating Heating Cable for frost protection and temperature maintenance of vessels and pipe work in safe or hazardous locations. FreezStop Lite is approved for use in non-hazardous, hazardous, and corrosive environments to world wide standards.

FEATURES

- Automatically adjusts heat output in response to increasing or decreasing pipe temperature
- Can be cut-to-length with no wastage
- Will not overheat or burnout, even when overlapped
- Full range of controls and accessories
- Approved for use in non-hazardous, hazardous and corrosive environments
- Full range of controls and accessories
- Available up to 277 VAC
- Safe and reliable

OPTIONS

| Model | Description |
|-----------|--|
| FSLe - C | Continuous conductive covering of metal braid providing mechanical protection |
| FSLe - CT | Thermoplastic outer jacket over a metal braid provides additional protection. |
| FSLe - CF | Fluoropolymer outer jacket over a metal braid provides protection where corrosive chemical solutions or vapors may be present. |

INDUSTRIES

- Freeze protection of pipe work and vessels
- Process temperature maintenance
- Heating of roads, ramps, walkways
- Roof and gutter heating
- Under floor heating
- Heating of transportation rails and lines

FREEZSTOP LITE SELF-REGULATING HEATING CABLE

Specification

| | |
|--|--|
| Maximum Continuous Exposure Temperature (Power ON) | 85°C (185°F) |
| Maximum Permissible Exposure Temperature (Power Off) | 85°C (185°F) |
| Minimum Operating Temperature | -65°C (-85°F) |
| Minimum Installation Temperature | -40°C (-40°F) |
| Power Supply | 0-277 VAC |
| Temperature Classification | Up to 31 W/m @ nom voltage - T6 (85°C) Up to 25W/m @ nom 230V powered to 277V - T6 (85°C) >31W/m @ nom voltage - T4 (135°C) >25W/m @ nom 230V powered up to 277V - T4 (135°C) |
| Maximum Resistance of Protective Braiding | 18.2 Ohm/km |

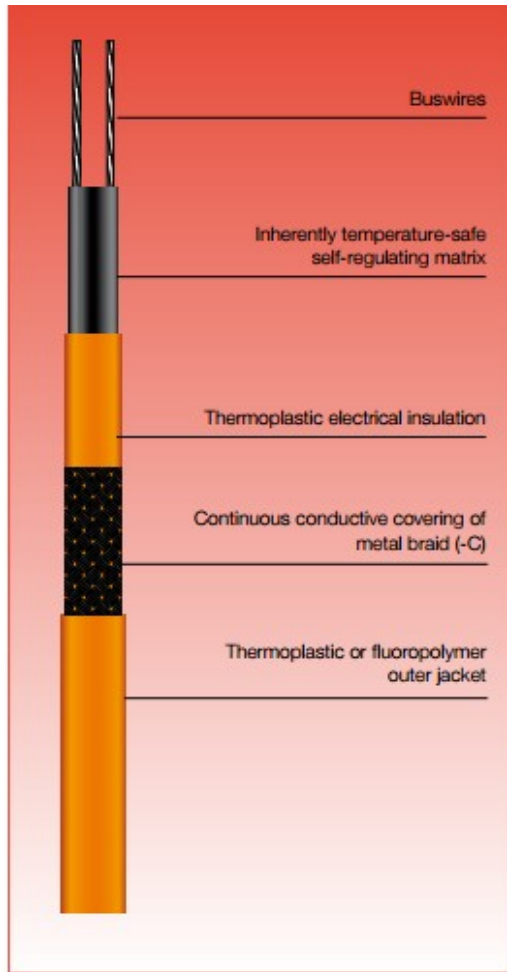
Weights and Dimensions

| Type Ref | Nominal Dimensions (mm) | Weight kg/100m | Min. Bending radius | Gland Size |
|-----------|-------------------------|----------------|---------------------|------------|
| FSLe | 8.5 x 3.9 | 4.6 | 25mm | M20 |
| FSLe - C | 9.3 x 4.7 | 9.2 | 30mm | M20 |
| FSLe - CT | 10.5 x 5.9 | 10.2 | 35mm | M20 |
| FSLe - CF | 10.1 x 5.9 | 9.9 | 35mm | M20 |

Maximum Length (m) vs. Circuit Breaker Size

| Cat Ref | Start-Up Temperature | 230V | | | |
|---------|----------------------|------|-----|-----|-----|
| | | 6A | 10A | 16A | 20A |
| 12FSLe | 5°C | 78 | 132 | 180 | - |
| | 0°C | 74 | 124 | 180 | - |
| | -20°C | 56 | 94 | 150 | 180 |
| | -40°C | 46 | 76 | 124 | 154 |
| 17FSLe | 5°C | 62 | 104 | 146 | - |
| | 0°C | 60 | 100 | 146 | - |
| | -20°C | 48 | 82 | 130 | 146 |
| | -40°C | 42 | 70 | 112 | 138 |
| 23FSLe | 5°C | 46 | 76 | 124 | - |
| | 0°C | 42 | 70 | 114 | 124 |
| | -20°C | 34 | 56 | 88 | 110 |
| | -40°C | 28 | 46 | 72 | 90 |
| 17FSLe | 5°C | 34 | 58 | 92 | 102 |
| | 0°C | 32 | 52 | 84 | 102 |
| | -20°C | 24 | 40 | 56 | 66 |
| | -40°C | 20 | 34 | 54 | 66 |

For use with Type C circuit breaker to IEC 60898



FREEZSTOP EXTRA SELF-REGULATING HEATING CABLE

Flexotherm™ offers FreezStop Micro Self-Regulating Heating Cable for frost protection and temperature maintenance of pipe work and vessels in safe or hazardous locations. FreezStop Regular is suited to protect against freezing up to 100°C. It can be cut to length on site and exact piping lengths can be matched without complicated considerations

FEATURES

- Automatically adjusts heat output in response to increasing or decreasing pipe temperature
- Can be cut-to-length with no wastage
- Will not overheat or burnout, even when overlapped
- Full range of controls and accessories
- Approved for use in non-hazardous, hazardous and corrosive environments
- Available up to 277 VAC
- Safe and reliable

OPTIONS

| Model | Description |
|---------|--|
| FSR - C | Continuous conductive covering of metal braid for where traced equipment does not provide an effective earth path. |
| FSR-CT | Thermoplastic outer jacket over a metal braid provides additional protection. |
| FSR-CF | Fluoropolymer outer jacket over a metal braid provides protection where corrosive chemical solutions or vapors may be present. |

INDUSTRIES

- Freeze protection of pipe work and vessels
- Process temperature maintenance
- Heating of roads, ramps, walkways
- Roof and gutter heating
- Under floor heating
- Heating of transportation rails and lines

FREEZSTOP EXTRA SELF-REGULATING HEATING CABLE

Specification

Maximum Continuous Exposure Temperature (Power ON) 100°C (212°F)

Maximum Permissible Exposure Temperature (Power Off) 100°C (212°F)

Minimum Operating Temperature -65°C (-85°F)

Minimum Installation Temperature -40°C (-40°F)

Power Supply 0-277 VAC

Temperature Classification
Up to 45 W/m @ nom voltage - T6 (135°C)
>45W/m @ nom 230V powered up to 277V - T3(200°C)

Maximum Resistance of Protective Braiding 18.2 Ohm/km

Weights and Dimensions

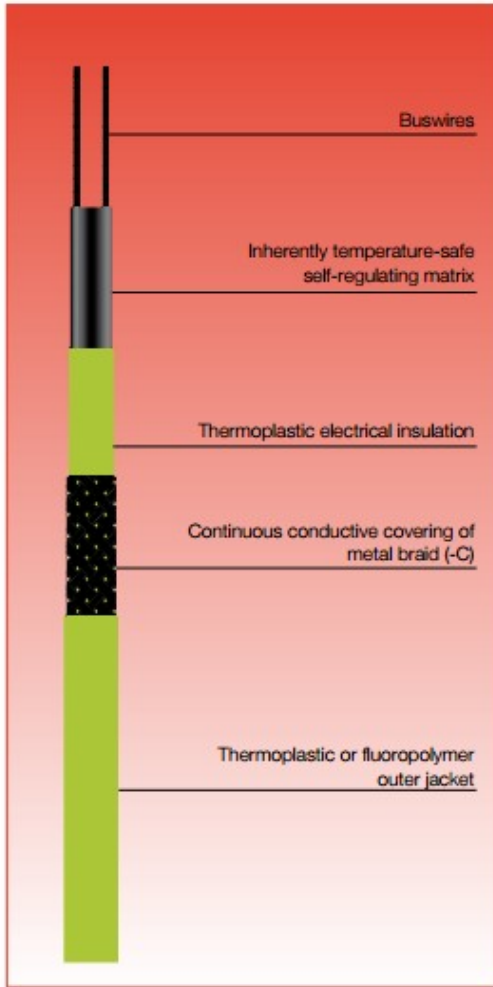
| Type Ref | Nominal Dimensions (mm) | Weight kg/100m | Min. Bending radius | Gland Size |
|-----------|-------------------------|----------------|---------------------|------------|
| FSE | 10.9 x 3.8 | 5.8 | 20mm | M20 |
| FSE - C | 11.8 x 4.7 | 11.2 | 25mm | M20 |
| FSE - C* | 12.3 x 5.6 | 13.2 | 30mm | M20 |
| FSEw | 12.5 x 3.9 | 11.5 | 20mm | M20 |
| FSEw - C | 13.5 x 5.0 | 18.4 | 25mm | M20 |
| FSEw - C* | 15.0 x 6.5 | 18.9 | 30mm | M25 |

* Denotes (T)hermoplastic, or (F)luoropolymer outerjacket

Maximum Length (m) vs. Circuit Breaker Size

| Cat Ref | Start-Up Temp. | 230V 6A | | | | |
|---------|----------------|---------|-----|-----|-----|-----|
| | | 10A | 16A | 20A | 25A | |
| 17FSE | 10°C | 46 | 76 | 120 | 148 | - |
| | 0°C | 36 | 62 | 98 | 122 | 148 |
| | -20°C | 24 | 42 | 66 | 82 | 102 |
| | -40°C | 16 | 28 | 44 | 56 | 68 |
| 31FSE | 10°C | 32 | 52 | 62 | 104 | 110 |
| | 0°C | 26 | 42 | 68 | 84 | 106 |
| | -20°C | 16 | 28 | 46 | 56 | 70 |
| | -40°C | 12 | 18 | 30 | 38 | 48 |
| 45FSEw | 10°C | 24 | 38 | 52 | 76 | 96 |
| | 0°C | 20 | 32 | 50 | 64 | 80 |
| | -20°C | 12 | 22 | 34 | 42 | 52 |
| | -40°C | 8 | 14 | 22 | 28 | 34 |
| 60FSEw | 10°C | 20 | 35 | 52 | 66 | 82 |
| | 0°C | 16 | 28 | 44 | 56 | 70 |
| | -20°C | 12 | 20 | 32 | 40 | 50 |
| | -40°C | 8 | 14 | 22 | 28 | 34 |

For use with Type C circuit breaker to IEC 60898



FREEZSTOP MICRO SELF-REGULATING HEATING CABLE

Flexotherm™ offers FreezStop Micro Self-Regulating Heating Cable for frost protection and temperature maintenance of instrument lines and pipe work in safe or hazardous locations. FreezStop Micro is suited to small diameter pipes and instrument tubing and can be cut-to-length at site and exact piping lengths can be matched without any design considerations.

FEATURES

- Automatically adjusts heat output in response to increasing or decreasing pipe temperature
- Can be cut-to-length with no wastage
- Will not overheat or burnout, even when overlapped
- Full range of controls and accessories
- Approved for use in non-hazardous, hazardous and corrosive environments
- Ideal for fitting to instrument lines and small diameter pipes
- Available up to 277 VAC
- Safe and reliable

OPTIONS

| Model | Description |
|--------|---|
| FSM-C | Continuous conductive covering of metal braid. |
| FSM-CT | Thermoplastic outer jacket over a metal braid provides additional protection. |
| FSM-CF | Fluoropolymer outer jacket over a metal braid provides protection where corrosive chemical solutions or vapors may be |

INDUSTRIES

- Freeze protection of pipe work and vessels
- Process temperature maintenance
- Heating of roads, ramps, walkways
- Roof and gutter heating
- Under floor heating
- Heating of transportation rails and lines

FREEZSTOP MICRO SELF-REGULATING HEATING CABLE

Specification

Maximum Continuous Exposure Temperature (Power ON) 65°C (149°F)

Maximum Permissible Exposure Temperature (Power Off) 85°C (185°F)

Minimum Operating Temperature -65°C (-85°F)

Minimum Installation Temperature -40°C (-40°F)

Power Supply 0-277 VAC

Temperature Classification T6 (85°C)

Maximum Resistance of Protective Braiding 18.2 Ohm/km

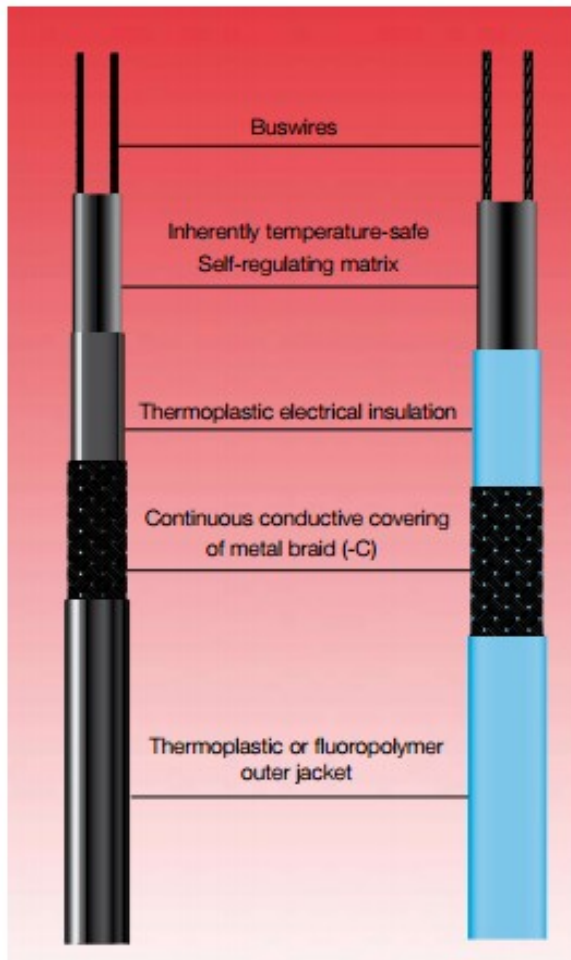
Weights and Dimensions

| Type Ref | Nominal Dimensions (mm) | Weight kg/100m | Min. Bending radius | Gland Size |
|----------|-------------------------|----------------|---------------------|------------|
| FSM-CT | 10.5 x 5.9 | 10.2 | 20mm | M20 |
| FSM-CF | 10.5 x 5.9 | 9.9 | 35mm | M20 |

Maximum Length (m) vs. Circuit Breaker Size

| Cat Ref | Start-Up Temperature | 230V | | | |
|---------|----------------------|------|-----|-----|-----|
| | | 6A | 10A | 16A | 20A |
| 11FSM | 5°C | 76 | 126 | 128 | - |
| | 0°C | 70 | 118 | 128 | - |
| | -20°C | 46 | 78 | 124 | 128 |
| | -40°C | 36 | 60 | 96 | 120 |
| 17FSM | 5°C | 54 | 88 | 102 | - |
| | 0°C | 50 | 84 | 102 | - |
| | -20°C | 34 | 56 | 88 | 102 |
| | -40°C | 26 | 42 | 68 | 86 |

For use with Type C circuit breaker to IEC 60898



12/17FLV

30FLVw

FREEZSTOP LOW VOLTAGE SELF-REGULATING HEATING CABLE

Flexotherm™ offers FreezStop Low Voltage Heating Cable for frost protection or temperature maintenance of pipework and vessels. This heating cable can be cut-to-length at site and exact piping lengths can be matched without any complicated design considerations. Its power output is self-regulated in response to pipe temperatures.

FEATURES

- Automatically adjusts heat output in response to increasing or decreasing pipe temperatures
- Can be cut to length with no wastage
- FLV available in outputs 12W/m and 17W/M
FLVw available in 30W/m
- Full range of controls and accessories
- Available for 22/24 VAC and 11/12 VAC
- Will not overheat or burnout, even when overlapped
- ATEX and IECEX certified for hazardous areas

OPTIONS

| Model | Description |
|----------|---|
| FLV - C | Continuous conductive covering of metal braid for non-hazardous areas, hazardous areas, or where traced equipment does not provide an effective earth path. |
| FLV - CT | Thermoplastic outer jacket over a metal braid provides additional protection. |
| FLV - CF | Fluoropolymer outer jacket over a metal braid provides protection where corrosive chemical solutions or vapors may be present. |

INDUSTRIES

- Freeze protection of pipe work and vessels
- Process temperature maintenance
- Roof and gutter heating

FREEZSTOP LOW VOLTAGE SELF-REGULATING HEATING CABLE

Specification

| | |
|---|-------------------|
| Maximum Permissible Temperature On of Off | FLV 85°C (185°F) |
| | FLVw 85°C (185°F) |

| | |
|-------------------------------|----------------|
| Minimum Operating Temperature | -65°C* (-85°F) |
|-------------------------------|----------------|

| | |
|----------------------------------|---------------|
| Minimum Installation Temperature | -40°C (-40°F) |
|----------------------------------|---------------|

| | |
|--------------|--|
| Power Supply | 22-24AC or DC (11 - 12 Volt on request) |
|--------------|--|

| | |
|---|-------------|
| Maximum Resistance of Protective Braiding | 18.2 Ohm/km |
|---|-------------|

Weights and Dimensions

| Type Ref | Nominal Dimensions (mm) | Weight kg/100m | Min. Bending radius | Gland Size |
|----------|-------------------------|----------------|---------------------|------------|
| FLV | 8.5 x 3.9 | 5 | 25mm | M20 |
| FLV - C | 9.3 x 4.7 | 11 | 30mm | M20 |
| FLV - CT | 10.5 x 5.9 | 10 | 35mm | M20 |
| FLV - CF | 10.5 x 5.9 | 11 | 35mm | M20 |

Maximum Length (m) vs. Circuit Breaker Size

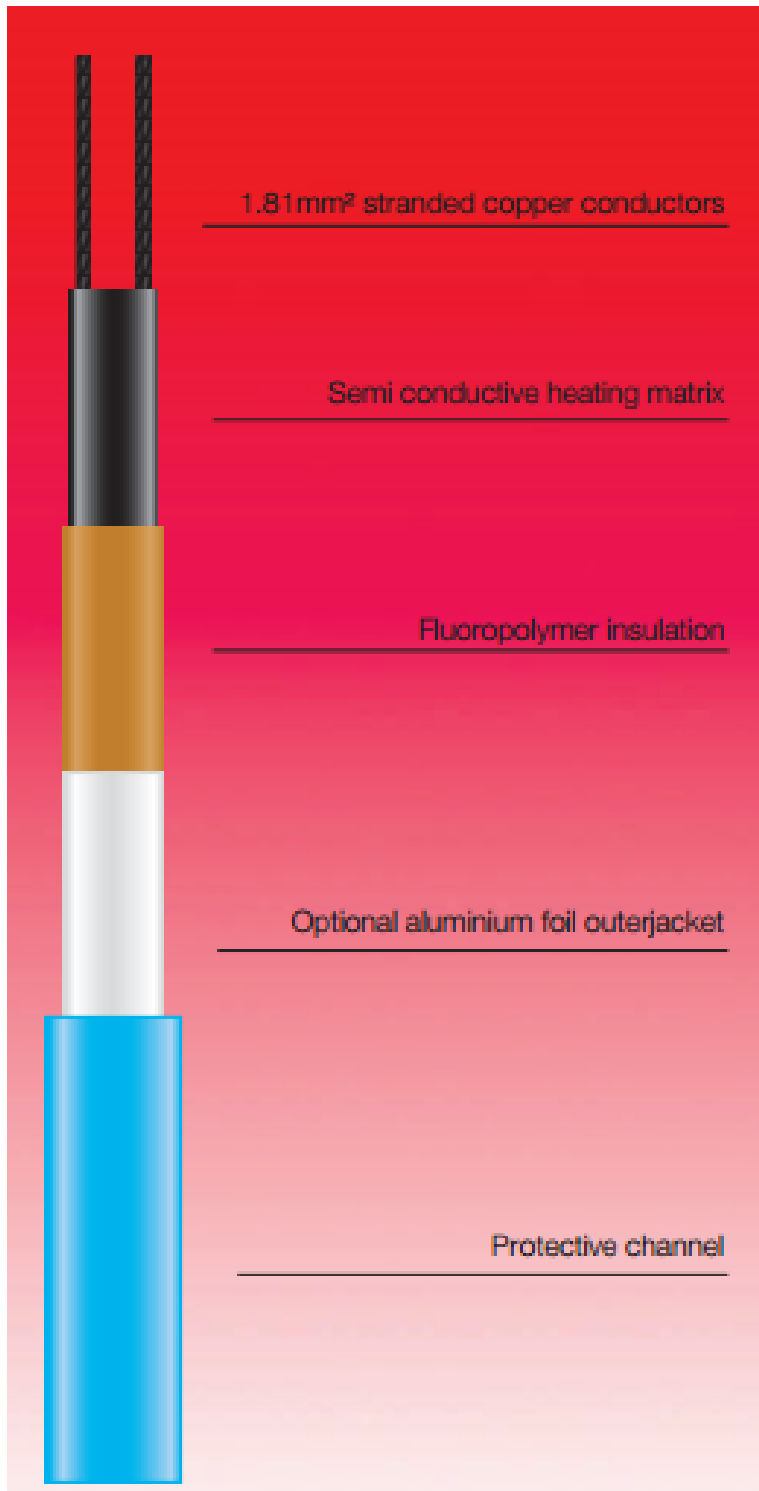
| Cat Ref | Start-Up Temp | Start Up Current* | 24A | | |
|---------|---------------|-------------------|-----|-----|-----|
| | | | 6A | 10A | 16A |
| 12FLV | 5°C | 0.729 A/m | 8 | 14 | 20 |
| | 0°C | 0.780 A/m | 8 | 12 | 20 |
| | -20°C | 1.016 A/m | 6 | 10 | 16 |
| 12FLV | -40°C | 1.245 A/m | 4 | 8 | 12 |
| | 5°C | 0.921 A/m | 6 | 10 | 16 |
| | 0°C | 0.9868 A/m | 6 | 10 | 16 |
| | -20°C | 1.175 A/m | 6 | 8 | 14 |
| | -40°C | 1.378 A/m | 4 | 8 | 12 |

For use with Type C circuit breaker to IEC 60898

* 300 second rating

IMPORTANT NOTE

30FLVw is used for specialist applications only. For details of circuit lengths and start-up currents, contact Neptech Inc.



CONTACT RAIL HEATER

SELF-REGULATING HEATING CABLE

Flexotherm™ offers Contact Rail Heating Cable for contact rails / live rail heating. This Self-Regulating Heating Cable can be cut to length at site and exact lengths can be matched without any complicated design considerations. The Contact Rail Heater was specifically developed for contact on live rails operating on up to 750 volt dc systems.

FEATURES

- Outputs available up to 90W/m
- CRH is supplied in pre-terminated lengths up to 152 meters
- Full range of controls and accessories
- Available up to 750 vdc
- Suitable for contact rails, live rails, and 3rd rail systems
- CRH can also be supplied on reels for cutting to length as required
- Safe and reliable

INDUSTRIES

- Freeze protection contact rails and live rails
- Transportation

CONTACT RAIL HEATER

SELF-REGULATING HEATING CABLE

Specification

Maximum Temperature 135°C (275°F)

Minimum Installation Temperature -20°C (-4°F)

Power Supply 600 VDC

Power Output 90W/m @ 0°C
(27W/ft @ 32°F)

Construction

Heating Element Semi-conductive self-limiting matrix
Power Conductors Nickel plated copper 1.81mm²
Primary Insulation Fluoropolymer
Outer Jacket Aluminum foil

Weights and Dimensions

| Type Ref | Nominal Dimensions (mm) | Weight kg/100m | Min. Bending radius |
|----------|-------------------------|----------------|---------------------|
| CRH | 13.0 x 4.0 | 13 | 30 |

Maximum Length (m) vs. Circuit Breaker Size

| Cat Ref | Start-Up Temp. | 16A | 20A | 32A | 50A |
|---------|----------------|--------|-----|-----|-----|
| | | 90CRH6 | 84 | 104 | 166 |
| | -10°C | 68 | 84 | 136 | 208 |
| | -20°C | 56 | 72 | 114 | 178 |

For use with Type C circuit breakers to BS EN60898:1991

ATTACHING THE HEATER TO THE RAIL

Heaters may be mounted on the rail using a channel section. For applications that use an aluminum clad contact rail, an angle section is also available.

Specially designed spring clips hold the heater and the channel, or angle, to the rail. A range of clips are available to suit a variety of different rail profiles.

Heater shown with channel section



Heater shown with angle section

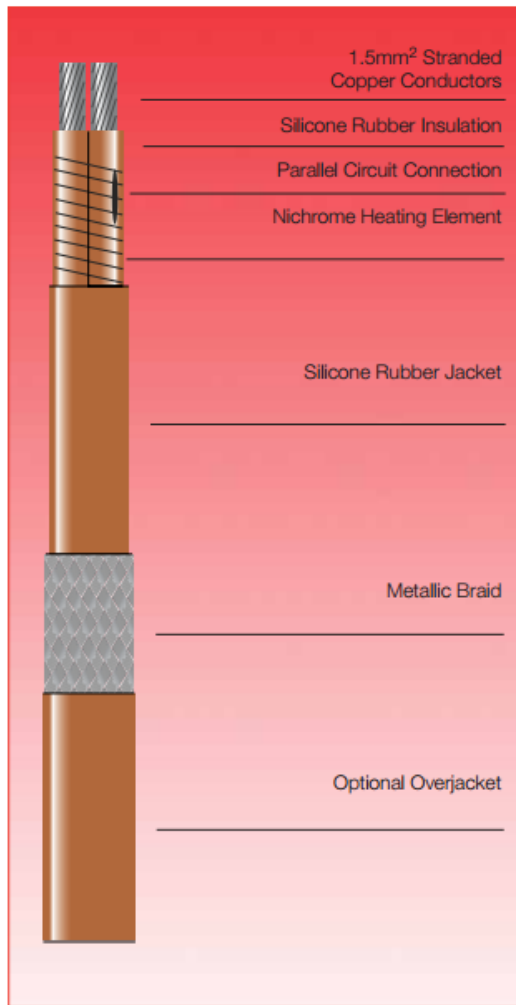


ACCESSORIES

Heat Trace supply a complete range of accessories including, connector blocks, anti-vibration plugs, rail clips, control systems, power cabling.

IMPORTANT NOTES

The CRH Rail Heater should only be fitted to rails using approved methods. The heating cable should only be terminated using the approved cold lead connection and the special heat shrink boot and tubing. Connections must be of an approved type.



MICROTRACER

CONSTANT WATTAGE HEATING CABLE

Flexotherm™ offers MicroTracer Constant Wattage Heating Cable for freeze protection or refrigeration duties or process heating of pipework and vessels. This heating cable can be cut-to-length to ensure that the cable is the exact length needed for each application. It is particularly suited to refrigeration applications or for small bore instrument lines.

FEATURES

- Withstand temperatures upto 200°C
- Available in outputs up to 50W/m
- Can be cut to length at site
- Particularly suited to small bore pipework
- Full range of controls and accessories
- Available for 110/120 and 220/240VAC
- Highly flexible
- Medium temperature parallel resistance
- Safe and reliable

OPTIONS

| Model | Description |
|-----------|--|
| EMTS - C | Tinned Copper braid provides mechanical protection for base heater and may be used when traced equipment does not provide an effective earth path. |
| EMTS - CS | Silicone rubber overjacket over tinned copper braid provides additional protection |
| EMTS - CF | Fluoropolymer overjacket over tinned copper braid provides protection where corrosive chemical solutions or vapors may be present. |

INDUSTRIES

- Freeze protection
- Process heating of pipe work and vessels

MICROTRACER

CONSTANT WATTAGE HEATING CABLE

Specification

| | |
|---|--|
| Maximum Temperature | Unenergized 200°C (392°F) Energized see table |
| Minimum Installation Temperature | -80°C (-112°F) |
| Power Supply | 220 - 240 VAC Or 110 - 120 VAC |
| Maximum Resistance of Protective Braiding | 18.2 Ohm/km |
| Construction | |
| Grade | 2.2 to BS6351: Part 1 |
| Heating Element | Nickel Chromium |
| Power Conductors | Tin Plated Copper 1.5mm ² |
| Conductor Insulation | Silicone Rubber |
| Jacket | Silicone Rubber |
| Braid | Tinned Copper |
| Overjacket (optional) | Silicone Rubber or Fluoropolymer (FEP) |

Weights and Dimensions

| Type Ref | Nominal Dimensions (mm) | Weight kg/100m | Min. Bending radius | Gland Size |
|-----------|-------------------------|----------------|---------------------|------------|
| EMTS | 8.2 x 6.0 | 7.4 | 10 | M16 |
| EMTS - C | 9.0 x 6.8 | 11.7 | 12 | M16 |
| EMTS - CS | 11.0 x 8.8 | 14.3 | 15 | M20 |
| EMTS - CF | 10.2 x 8.0 | 14.3 | 25 | M20 |

Maximum Pipe / Workpiece Temperatures (°C)

| Heater Nominal Output (W/m) | Maximum Permissible Pipe Temp (°C) | | | |
|-----------------------------|------------------------------------|----------|-----------|-----------|
| | EMTS | EMTS - C | EMTS - CS | EMTS - CF |
| 6.5 | 190 | 190 | 190 | 190 |
| 13 | 180 | 180 | 185 | 185 |
| 23 | 150 | 150 | 160 | 160 |
| 33 | 110 | 110 | 115 | 115 |
| 50 | 70 | 75 | 80 | 75 |

For conditions other than worst case, or pipes of other materials (ex. Plastic, Stainless Steel, etc.) consult Neptech Inc.

Tolerances: Voltage +10%; Resistance: +10%; -0%

Maximum Circuit Length

| Output (W/m) | Max. Circuit Length 115V | Max. Circuit Length 230V | Zone Length 115V | Zone Length 230V |
|--------------|--------------------------|--------------------------|------------------|------------------|
| 6.5 | 82m | 164m | 1000mm | 1500mm |
| 13 | 58m | 116m | 741mm | 1100mm |
| 23 | 44m | 87m | 900mm | 1000mm |
| 33 | 36m | 73m | 1000mm | 950mm |
| 50 | 30m | 59m | 995mm | 900mm |

G-TRACE

SELF-REGULATING HEATING CABLE

Flexotherm™ offers G-Trace for roof and gutter protection from snow and ice build up. This heating cable can adjust its heat output in accordance with the ambient temperatures. As the snow melts and water drains away, G-Trace self-regulated to half power while it dries and reduces its output as it gets warmer



FEATURES

- Ambient temperature range +40°C to -40°C
- Can be cut-to-length with no wastage
- Will not overheat or burnout, even when overlapped
- Inherently temperature-safe (ITS)
- External temperature controls not necessary
- Simple installation with no need for spacers
- Cost effective, preventative maintenance solution to damaged roof tops and gutters.
- Safe and reliable

INDUSTRIES

- Freeze protection of pipe work and vessels
- Process temperature maintenance
- Roof and gutter heating

G-TRACE

SELF-REGULATING HEATING CABLE

Specification

Operating Environmental Range +15°C to -15°C
(+59°F to +5°F)

Ambient Temperature Range +40°C to -40°C
(+104°F to -40°F)

Minimum Installation Temperature -40°C (-40°F)

Power Supply 208-277VAC

Power Output

In ice at 0°C 36W/m

In air at 0°C 18W/m

Weights and Dimensions

| Type Ref | Nominal Dimensions (mm) | Weight kg/100m | Min. Bending radius |
|----------|-------------------------|----------------|---------------------|
| GT | 13.1 x 6.0 | 13.1 | 35mm |
| GTe | 10.5 x 5.9 | 10.0 | 50mm |

Maximum Length (m) vs. Circuit Breaker Size

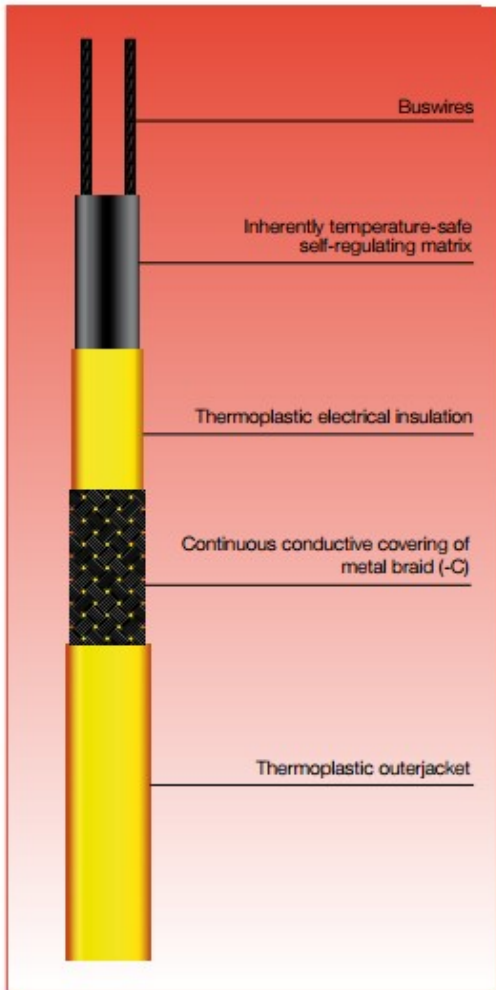
| Cat Ref | Start-Up Temp | 230V 6A | | | | |
|---------|---------------|---------|-----|-----|-----|----|
| | | 10A | 16A | 20A | 25A | |
| GT | 10°C | 26 | 42 | 68 | 84 | 90 |
| | 0°C | 24 | 38 | 62 | 78 | 86 |
| | -15°C | 20 | 34 | 54 | 68 | 80 |
| GTe | 10°C | 34 | 56 | 88 | 92 | - |
| | 0°C | 28 | 48 | 76 | 92 | - |
| | -15°C | 22 | 36 | 58 | 74 | 92 |

Note: Cable shall not be energized below 0°C

For use with Type C circuit breaker to IEC 60898

Selection Guide

| Considerations for Fitting and Use | GTe | GT |
|------------------------------------|-----|-----|
| Complex Systems | * | ** |
| Abrasive Environments | * | ** |
| Gutter Appliances | *** | *** |
| Downspout Applications | * | *** |
| Elevated Tensile Load | * | ** |
| Resistance to Torsional Force | * | *** |
| Resistance to Cutting | ** | *** |



HOTWAT

SELF-REGULATING HEATING CABLE

Flexotherm™ offers HotWat Self-Regulating Heating Cable for temperature maintenance of hot water services in domestic and commercial buildings. HotWat helps compensate for heat losses from how water distribution systems. By applying HotWat to the pipework, heat losses are eliminated and the water is maintained at the required temperature

FEATURES

- Maintains hot water at desired temperature
- Eliminated the need for return pipework and re-circulating pumps
- Hot water instantly available at each outlet
- Highly economical
- Full range of controls and accessories
- Available for 220/240 VAC
- Self-regulating heater cannot overheat or burn out.
- Safe and reliable

OPTIONS

| Model | Description |
|------------|---|
| HW - R - T | HotWat Regular heating cable with a thermoplastic overjacket for maintaining the pipework at approximately 50-60°C |
| HW - P - T | HotWat Plus is a higher power output heating cable with a thermoplastic overjacket for maintaining the pipework between 45-70°C with the added benefit of thermal disinfection. |

INDUSTRIES

- Freeze protection of pipe work and vessels
- Process temperature maintenance

HOTWAT

SELF-REGULATING HEATING CABLE

Specification

Maximum Permissible Temperature (On of Off) 100°C (212°F)

Minimum Installation Temperature -40°C (-40°F)

Power Supply 220 - 240 VAC
(on demand 110 - 120 VAC)

Maximum Resistance of Protective Braiding 18.2 Ohm/km

Accessories Neptech supplies a complete range of accessories including termination/splice kits, end seals, junction boxes and controls. These items are recommended for the correct operation of a Neptech Inc. product

Weights and Dimensions

| Type Ref | Nominal Dimensions (mm) | Weight kg/100m | Min. Bending radius |
|------------|-------------------------|----------------|---------------------|
| HW - x - T | 13.1 x 6.0 | 13.2 | 30mm |

X Denotes HotWat (R)egular, or HotWat (P)lus

Maximum Length (m) vs. Circuit Breaker Size

| Cat Ref | Start-Up Temp. | 230V 6A | | | |
|---------|----------------|---------|-----|-----|-----|
| | | 10A | 16A | 20A | |
| HW - R | 18°C | 56 | 92 | 128 | - |
| | 0°C | 38 | 64 | 102 | 128 |
| HW - P | 18°C | 34 | 56 | 90 | 94 |
| | 0°C | 24 | 40 | 64 | 80 |

For use with Type C circuit breakers to IEC 60898

Recommended Insulation Thickness (mm)

| Cat Ref | Maintain Temperature | Pipe Size (mm) | | | | | |
|---------|----------------------|----------------|----|----|----|----|----|
| | | 15 | 22 | 28 | 35 | 42 | 54 |
| HW - R | 60°C | 25 | 30 | 40 | 50 | 60 | 75 |
| | 55°C | 20 | 25 | 30 | 40 | 50 | 60 |
| | 50°C | 15 | 20 | 25 | 30 | 40 | 50 |
| HW - P | 45 - 70°C | 30 | 40 | 50 | 60 | 75 | 75 |

The above figures are based on the thermal insulation having a K-value of 0.038W/mk at 36°C mid-point temperature.

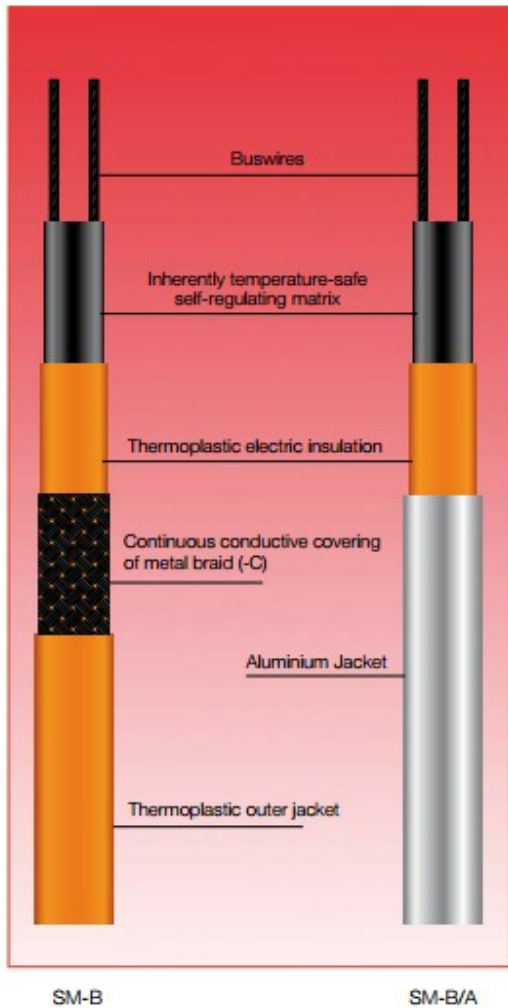
System Features

| | HW - R | HW - P |
|------------------------------|--------------------------|--|
| Hot Water Supply System | Localized or Centralized | Centralized |
| Temperature Control System | Fixed Temperature | Variable Temperature setting by PowerTrim |
| Thermal Pasteurization | Not Available | D-Bug timer unit or BMS (Building Management System) |
| Circuit Temp. Scanning | Not Available | Contact Heat Trace |
| Electrical Supply | 230V | 230V |
| Typical Maintain Temperature | 50, 55, or 60°C | 45°C - 70°C |
| Nominal Output | 9W/m at 55°C | 9.5W/m at 70°C |

SNOMELT

SELF-REGULATING HEATING CABLE

Flexotherm™ offers SnoMelt Self-Regulating Heating Cable for snow melting and ice prevention of roads, ramps, and walkways. This Self-Regulating Heating Cable can be cut to length at site and exact lengths can be matched without any complicated design considerations. SnoMelt is ideally suited for most general snow and ice prevention applications



FEATURES

- Systems suited to the size of installation
- Automatically adjusts heat output in response to increasing or decreasing surface temperature
- Will not overheat or burnout, even when overlapped
- Controls can provide high power for melting, or reduced power for ice prevention
- Simple installation in concrete
- Can be cut-to-length with no wastage

OPTIONS

| Model | Description |
|----------|--|
| SM - B | SnoMelt for all applications, ideally suited for use on car park ramps, access roads, walkways, access ramps, driveways, etc. |
| SM - B/A | SnoMelt as above, but braid and outer jacket replaced with extruded aluminum outer jacket, offering greater mechanical protection when required. |

INDUSTRIES

- Freeze protection of pipe work and vessels
- Process temperature maintenance
- Snow Melting
- Ice Prevention

SNOMELT

SELF-REGULATING HEATING CABLE

Specification

Maximum Surface Temperature 40°C (104°F)

Minimum Installation Temperature -30°C (-22°F)

Power Supply 208 - 277 VAC
(other voltages available on request)

Accessories Neptech supplies a complete range of accessories including termination/splice kits, end seals, junction boxes and controls. These items are recommended for the correct operation of a Neptech Inc.

Weights and Dimensions

| Type Ref | Nominal Dimensions (mm) | Weight kg/100m | Min. Bending radius |
|----------|-------------------------|----------------|---------------------|
| SM - B | 15.0 x 6.5 | 18.9 | 25mm |

Maximum Length (m) vs. Circuit Breaker Size

| Cat Ref | Start-Up Temp. | 230V | | | |
|---------|----------------|------|-----|-----|-----|
| | | 6A | 10A | 16A | 20A |
| SM - B | 10°C | 14 | 22 | 36 | 44 |
| | 0°C | 12 | 18 | 30 | 38 |

Factors

| For burial in: | Power Output Multiplying Factor |
|-----------------|---------------------------------|
| Sand (wet) | W/m in concrete x 0.9 |
| Metal Conduit | W/m in concrete x 0.4 |
| Plastic Conduit | W/m in concrete x 0.3 |