

Electrical heating cable for frost protection or process heating of pipework and vessels.

MinTracer
Constant Wattage Heating Cable

- Can be cut-to-length.
- Available for 110-120V AC/DC and 208-277V AC/DC.
- Power outputs up to 50W/m.
- Suitable for use in safe and corrosive areas.
- Full range of controls and accessories available.

DESCRIPTION

Minitracer type **MTF** is a parallel resistance, constant wattage, cut-to-length heating cable to BS6351 Grade 2.2 that can be used for freeze protection or process heating of pipework and vessels.

It can be cut-to-length on site if field fabricated heating cable is preferred.

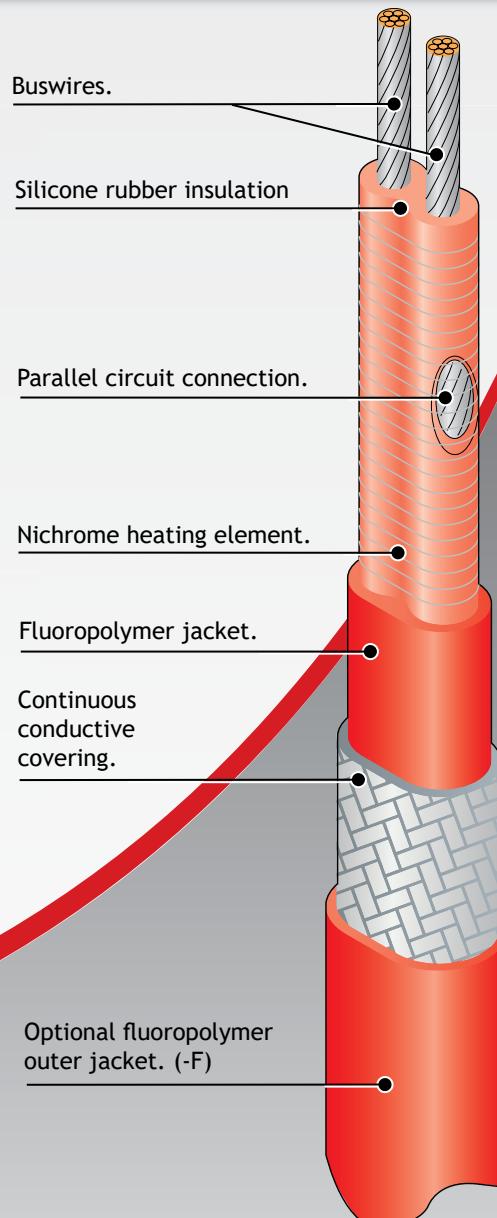
Minitracer has large 2.5mm² power busbars for long circuit lengths.

The installation of **MTF** heating cable is quick and simple and requires no special skills or tools. Termination and power connection components are all provided in convenient kits.

OPTIONS

MTF..C Tinned copper braid for non-hazardous areas, or where traced equipment does not provide an effective earth path.

MTF..CF Fluoropolymer overjacket over tinned copper braid provides protection where corrosive chemical solutions or vapours may be present.



SPECIFICATION

MAXIMUM TEMPERATURE:

| | |
|--------------|---------------|
| Un-energised | 200°C (392°F) |
| Energised | See table |

MINIMUM INSTALLATION TEMPERATURE:

| | |
|--------------|---------------|
| TEMPERATURE: | -40°C (-40°F) |
|--------------|---------------|

POWER SUPPLY:

208 - 277V AC/DC
or 110 - 120V AC/DC

WEIGHTS & DIMENSIONS:

| Type | Dimensions | Weight | Min Bending | Gland |
|---------|------------|---------|-------------|-------|
| Ref | (mm)+/-0.5 | kg/100m | radius | Size |
| MTF..C | 10.0 x 6.0 | 11.0 | 30mm | M20 |
| MTF..CF | 10.8 x 6.7 | 15.0 | 35mm | M20 |

CONSTRUCTION

| | |
|------------------------|--------------------------------------|
| Heating Element: | Nickel Chromium |
| Power Conductors: | Tin Plated Copper 2.5mm ² |
| Conductor Insulation: | Silicone Rubber |
| Jacket: | Fluoropolymer |
| Braid (Optional): | Tinned Copper |
| Overjacket (Optional): | Fluoropolymer |

ORDERING INFORMATION:

Example; 13 MTF 2 - CF
 Output 13W/m _____
 Minitracer type MTF _____
 Supply Voltage 220 - 240V AC/DC _____
 Tinned copper braid _____
 Fluoropolymer overjacket _____

ACCESSORIES:

Heat Trace supply a complete range of accessories including termination/splice kits, end seals, junction boxes and controls. Such items carry separate approvals from the heating tapes. When used in hazardous areas, only use approved components.

MAXIMUM PIPE / WORKPIECE TEMPERATURES:

The surface of the heater must not exceed the maximum withstand temperature of its constructional materials. This is ensured by limiting the pipe or workpiece temperatures to a safe level either by design calculation (a stabilised design) or by means of temperature controls.

For worst case conditions, the temperature of steel pipes should be limited to the following levels:-

MAXIMUM PIPE / WORKPIECE TEMPERATURES (°C)

| CAT REF | NOM. OUTPUT (W/m) | MAXIMUM PIPE/WORKPIECE TEMPERATURE |
|---------|-------------------|------------------------------------|
| MTF..C | 6.5 | 190 |
| | 13 | 180 |
| | 23 | 155 |
| | 33 | 120 |
| | 50 | 85 |
| MTF..CF | 6.5 | 190 |
| | 13 | 185 |
| | 23 | 165 |
| | 33 | 120 |
| | 50 | 85 |

For conditions other than worst case, or pipes of other materials (eg. Plastic, Stainless Steel, etc.) consult Heat Trace Ltd.

Notes:

- 1 Surface temperature limits in accordance with EN50014.
- 2 Surface temperature limited by materials of construction (withstand temperature).

Pipe temperatures higher than those given above may be accommodated by using Heat Trace Ltd voltage compensating devices e.g. POWERMATCH™ - Call for further details.

MAXIMUM CIRCUIT LENGTH:

| OUTPUT (W/m) | MAX.CIRCUIT LENGTH* (115V) | MAX.CIRCUIT LENGTH* (230V) | ZONE LENGTH (NOM) 115V | ZONE LENGTH (NOM) 230V |
|--------------|----------------------------|----------------------------|------------------------|------------------------|
| 6.5 | 106m | 212m | 1000mm | 1500mm |
| 13 | 75m | 150m | 800mm | 1110mm |
| 23 | 56m | 113m | 900mm | 1000mm |
| 33 | 47m | 94m | 750mm | 1000mm |
| 50 | 38m | 76m | 1000mm | 1000mm |

POWER CONVERSION FACTORS:

| 115V HEATING TAPE | 230V HEATING TAPE |
|------------------------------|------------------------------|
| 277V Multiply output by 5.80 | 277V Multiply output by 1.45 |
| 230V Multiply output by 4.00 | 240V Multiply output by 1.09 |
| 208V Multiply output by 3.27 | 220V Multiply output by 0.91 |
| 120V Multiply output by 1.09 | 208V Multiply output by 0.82 |
| 110V Multiply output by 0.91 | 115V Multiply output by 0.25 |



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