

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

## MiniTracer Constant Wattage Heating Cable

- Can be cut-to-length.
- Available for 110-120VAC and 208-277VAC.
- 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 at site if field fabricated heating cable is preferred.

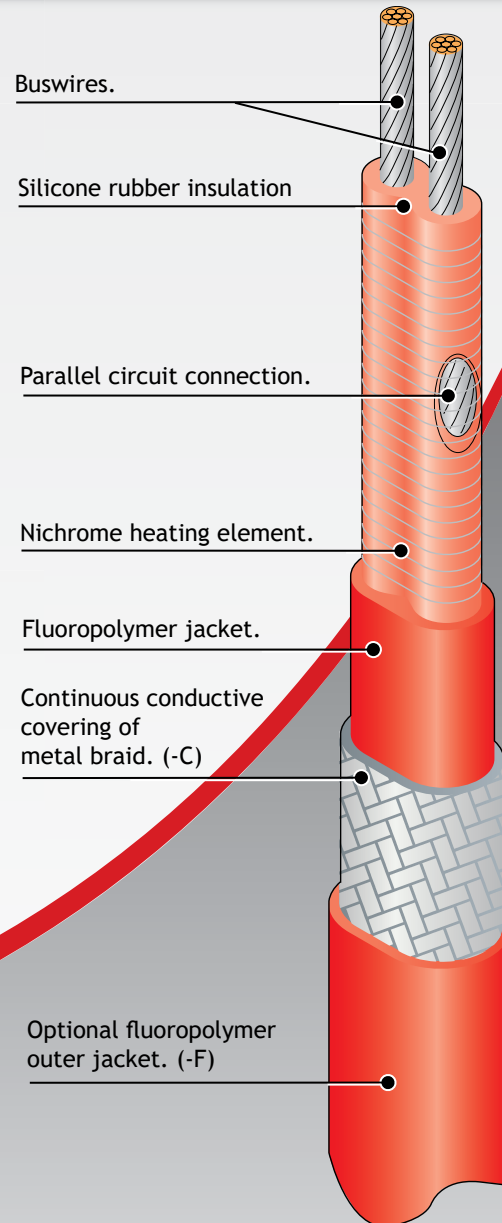
MiniTracer has large 2.5mm<sup>2</sup> power busbars for long circuit lengths.

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.



The Heat Tracing Authority™

## SPECIFICATION

### MAXIMUM TEMPERATURE:

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

### MINIMUM INSTALLATION TEMPERATURE:

-40°C (-40°F)

### POWER SUPPLY:

208 - 277V AC  
or 110 - 120V AC

### MAXIMUM RESISTANCE OF PROTECTIVE BRAIDING:

18.2 Ohm/km

### WEIGHTS & DIMENSIONS:

Type Ref	Dimensions (mm)+/-0.5	Weight kg/100m	Min Bending radius	Gland 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 <sup>2</sup>
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	_____	_____	_____	_____
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*		ZONE LENGTH (NOM)	
	115V	230V	115V	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