

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

## MicroTracer Constant Wattage Heating Cable

- Withstand temperatures up to 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 208-277VAC.
- High corrosion resistance.

### DESCRIPTION

Microtracer type **EMTF** is a medium temperature parallel resistance, constant wattage, cut-to-length heating cable that can be used for freeze protection or process heating.

It is particularly suited to small instrument impulse, analyser lines or process pipes located in non-hazardous areas.

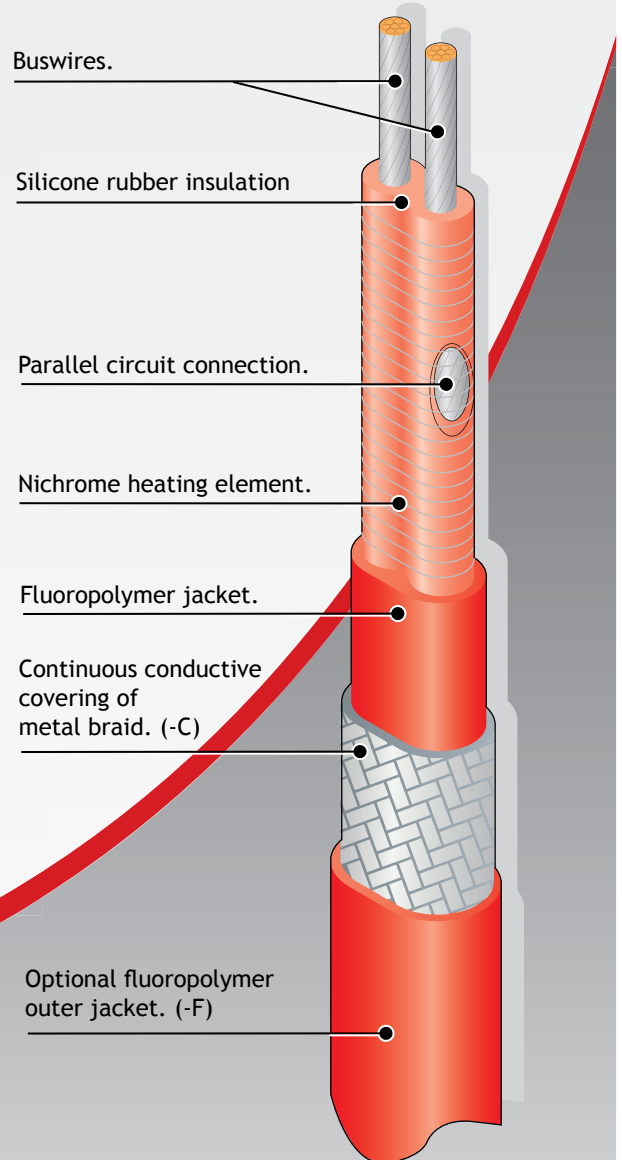
Microtracer type **EMTF** is chosen when short or moderate circuit lengths are required (select Minitracer if longer circuits are required)

The installation of **EMTF** 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

**EMTF..C** Tinned copper braid provides mechanical protection for base heater and may be used when traced equipment does not provide an effective earth path.

**EMTF..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:	-40°C (-40°F)
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### POWER SUPPLY:

208 - 277V AC
or 110 - 120V AC

### MAXIMUM RESISTANCE OF PROTECTIVE BRAIDING:

18.2 Ohm/km
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### WEIGHTS & DIMENSIONS:

Type Ref	Dimensions (mm)+/-0.5	Weight kg/100m	Min Bending radius	Gland Size
EMTF..C	8.2 x 5.0	9.6	25mm	M16
EMTF..CF	9.0 x 5.8	12.0	30mm	M16

### CONSTRUCTION

Grade:	2.2 to BS6351: Part 1
Heating Element:	Nickel Chromium
Power Conductors:	Tin Plated Copper 1.5mm <sup>2</sup>
Conductor Insulation:	Silicone Rubber
Jacket:	Fluoropolymer
Braid:	Tinned Copper
Overjacket (Optional):	Fluoropolymer

### ORDERING INFORMATION:

Example; 33 EMTF 2 - CF

Output 33W/m	_____	_____	_____	_____
Microtracer type EMTF	_____	_____	_____	_____
Supply Voltage 220 - 240V AC	_____	_____	_____	_____
Tinned copper braid	_____	_____	_____	_____
Fluoropolmer overjacket	_____	_____	_____	_____

### ACCESSORIES:

Heat Trace supply a complete range of accessories including termination/splice kits, end seals, junction boxes and controls. These items are recommended for the correct operation of EMTF products.

### FURTHER INFORMATION:

Please consult the appropriate termination instructions and the Heat Trace Installation, Maintenance and Testing Manual (HTDIMM 010) for further details.

### 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:-

HEATER NOMINAL OUTPUT (W/m)	MAXIMUM PERMISSIBLE PIPE TEMP (°C)	
	EMTF-C	EMTF-CF
6.5	190	190
13	175	185
23	145	155
33	100	100
50	60	70

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

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	82m	164m	1000mm	1500mm
13	58m	116m	800mm	1100mm
23	44m	87m	900mm	1000mm
33	36m	73m	750mm	1000mm
50	30m	59m	1000mm	1000mm

### POWER CONVERSION FACTORS:

115V HEATING CABLE	230 HEATING CABLE
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