

- Withstand temperatures upto 200°C
- Available in outputs upto 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
- High Corrosion Resistance

FEATURES

Microtracer type EMTF is a medium temperature parallel resistance, constant wattage, cut-to-length heating tape 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.

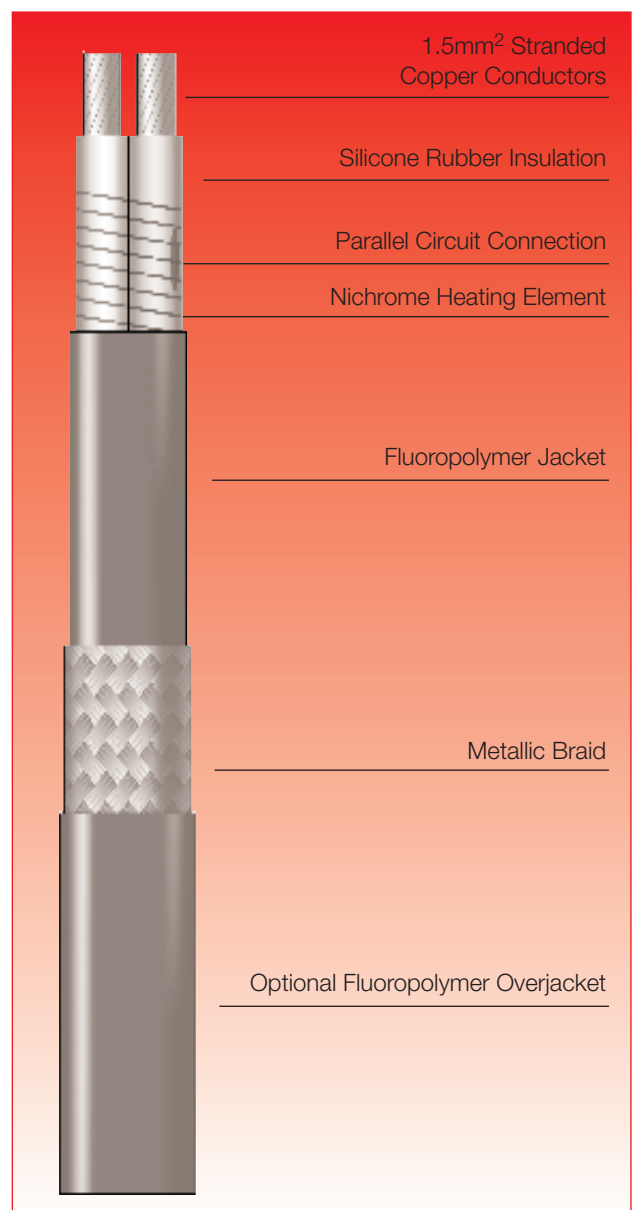
Microtracer type EMTF is chosen when short or moderate circuit lengths are required (select Minitracer if longer circuits are required).

The installation of EMTF heating tape 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 of vapours may be present.



SPECIFICATION

MAXIMUM TEMPERATURE	Un-energised Energised	200°C (392°F) See Table
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MINIMUM INSTALLATION TEMPERATURE		-80°C (-112°F)
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POWER SUPPLY		220 - 240 VAC or 110 - 120 VAC
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WEIGHTS & DIMENSIONS

Type Ref	Nom. Dims. (mm)	Weight kg/100m	Min. Bending radius (mm)	Gland Size
EMTF	7.0 x 4.3	6.4	20	M16
EMTF.C	7.8 x 5.1	9.6	25	M16
EMTF.CF	9.0 x 6.3	12.0	30	M16

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	Fluoropolymer (FEP)
Braid	Tinned Copper
Overjacket (Optional)	Fluoropolymer (FEP)

ORDERING INFORMATION

Example	33EMTF2-CF
Output 33W/m	
Microtracer type EMTF	
Supply Voltage 220 - 240 VAC	
Tinned Copper Braid	
Fluoropolymer 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.

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 temperature 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)

HEATER NOMINAL OUTPUT (W/m)	MAXIMUM PERMISSIBLE PIPE TEMP (°C)		
	EMTF	EMTF-C	EMTF-CF
6.5	190	190	190
13	175	175	185
23	135	145	155
33	95	100	100
50	45	60	70

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

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

Pipe temperatures higher than those given above may be accommodated by using Heat Trace Ltd voltage compensating devices eg. 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	741mm	1100mm
23	44m	87m	900mm	1000mm
33	36m	73m	1000mm	950mm
50	30m	59m	995mm	900mm

*For ±10% end-to-end power output variation

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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MTSS

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

MINITRACER

**Constant Wattage
Heating Tape**

- Withstand temperatures up to 200°C
- Available in outputs up to 66W/m
- Can be cut to length at site
- Highly flexible
- Full range of controls and accessories
- Available for 110/120 and 220/240VAC
- Large power conductors for long circuit lengths

FEATURES

Minitracer type MTSS is a medium temperature parallel resistance, constant wattage, cut-to-length heating tape that can be used for freeze protection or process heating of pipework and vessels.

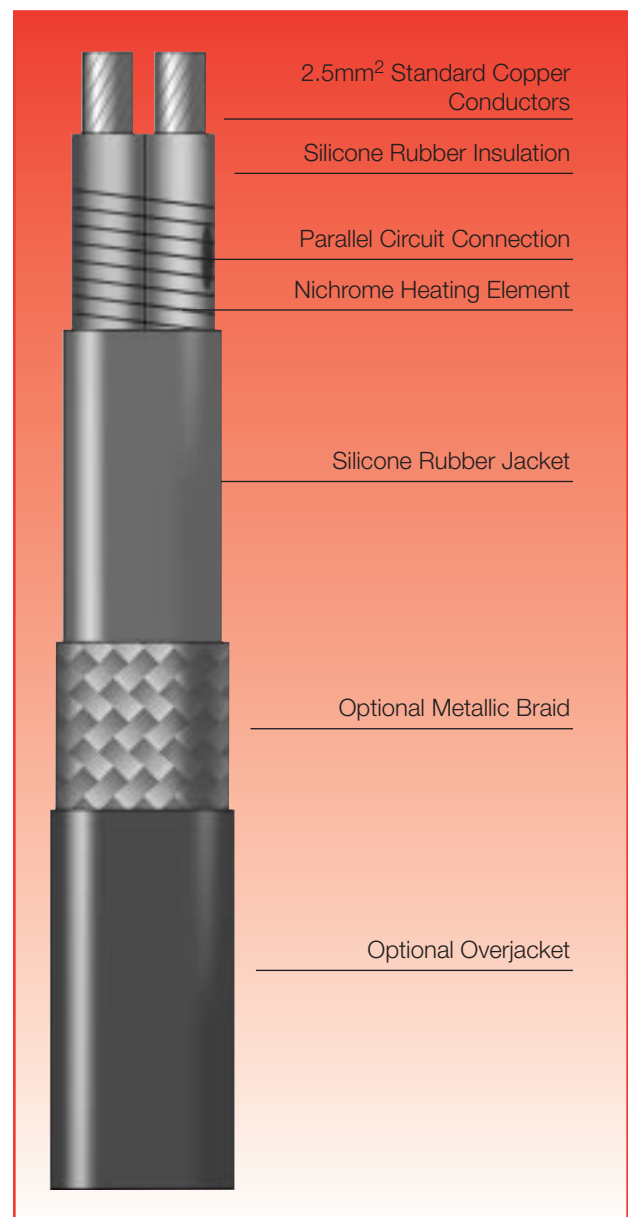
Having large 2.5mm² power bus bars, Minitracer type MTSS is chosen when longer circuit lengths are required (select Microtracer if short circuit lengths are required).

The silicone rubber insulation is particularly suited to applications where great flexibility is required.

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

OPTIONS

- | | |
|------------|--|
| MTSS | Silicone rubber base heater. |
| MTSS .. C | Tinned copper braid provides extra mechanical protection for base heater and may be used when traced equipment does not provide an effective earth path. |
| MTSS .. CS | Silicone rubber overjacket over tinned copper braid provides additional protection. |
| MTSS .. 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)

MINIMUM INSTALLATION TEMPERATURE -80°C (-112°F)
-20°C (-4°F)†

POWER SUPPLY 220 – 240 VAC
or 110 – 120 VAC

WEIGHTS & DIMENSIONS

Type Ref	Nom. Dims (mm)	Weight kg/100m	Min. Bending radius (mm)
MTSS	10.0 x 7.0	11	15
MTSS .. C	11.0 x 8.0	14	17
MTSS .. CS	13.0 x 10.0	18	20
MTSS .. CF	11.8 x 8.8	17	30

CONSTRUCTION

Heating Element	Nickel Chromium
Power Conductors	Tin Plated Copper 2.5mm ²
Conductor Insulation	Silicone Rubber
Jacket	Silicone Rubber
Braid (optional)	Tinned Copper
Overjacket (optional)	Silicone Rubber or Fluoropolymer (FEP)

ORDERING INFORMATION

Example	33MTSS2-CS
Output 33W/m at 230V	
Minitracer type MTSS	
Supply Voltage 220 – 240 VAC	
Tinned Copper Braid	
Silicone Rubber 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 MTSS products.

†Fluoropolymer (FEP) overjacket

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 temperature 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)

HEATER NOMINAL OUTPUT (W/m)	MAXIMUM PERMISSIBLE PIPE TEMP (°C)			
	MTSS	MTSS-C	MTSS-CS	MTSS-CF
6.5	190	190	190	190
13	180	185	185	185
23	155	165	165	165
33	120	125	130	125
50	85	85	95	90
66	40	45	55	50

For conditions other than worst case, or pipes of other materials (eg. plastic, stainless steel, etc.), consult Heat Trace Ltd.

Pipe temperatures much higher than those given above may be accommodated by using Heat Trace Ltd voltage compensating devices eg. POWERMATCH™ – call for further details.

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

MAXIMUM CIRCUIT LENGTH

CAT REF	OUTPUT (W/m)	MAX. CIRCUIT LENGTH *	
		115V	230V
6.5MTSS	6.5	99	198
13MTSS	13	70	140
23MTSS	23	53	105
33MTSS	33	44	88
50MTSS	50	36	71
66MTSS	66	31	62

* For ±10% end-to-end power output variation

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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