# EMTS ( C

Electrical heating tape for freeze protection, refrigeration duties or process heating of pipework and vessels.



Constant Wattage Heating Tape

- 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
- Highly flexible

## FEATURES

Microtracer type EMTS 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 refrigeration applications or for small bore instrument lines or process pipework located in nonhazardous areas.

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

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

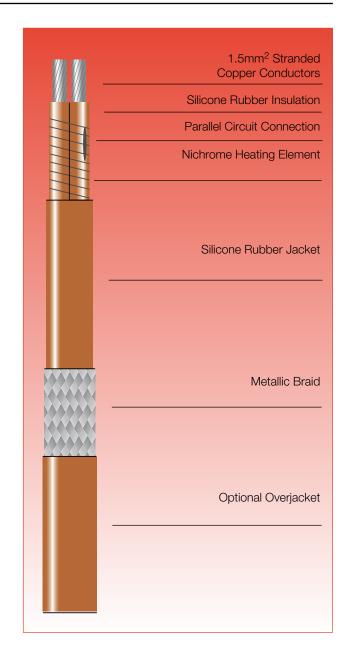
The installation of EMTS heating tape is quick and simple and requires no special skills or tools. Termination and power connection components are all provided in convenient kits.

## OPTIONS

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.

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 of vapours may be present.





# SPECIFICATION

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

18.2 Ohm/km

MAXIMUM RESISTANCE OF PROTECTIVE BRAIDING

#### WEIGHTS & DIMENSIONS

Type	Nom. Dims.	Weight	Min. Bending	Gland
Ref	(mm)+/-0.5	kg/100m	radius (mm)	Size
EMTS	8.4 x 5.2	7.4	10	M16
EMTSC	9.4 x 6.2	11.7	12	M16
EMTSCS	11.4 x 8.2	14.3	15	M20
EMTSCF	10.2 x 7.0	14.3	25	M20

#### 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	Silicone Rubber
Braid	Tinned Copper
Overjacket (Optional)	Silicone Rubber or Fluoropolymer (FEP)

#### ORDERING INFORMATION

Example	23 EMTS2-CS
Output 23W/m	
Microtracer type EMTS	
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 EMTS products.

#### FURTHER INFORMATION

Please consult the appropriate termination instructions and the Heat Trace Installation, Maintenance and Testing Manual (IMEHT010) 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 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	MAXIMUM PERMISSIBLE PIPE TEMP (°C)			
OUTPUT	EMTS	EMTS-C	EMTS-CS	EMTS-CF
(W/m)				
6.5 13 23	190 180 150	190 180 150	190 185 160	190 185 160
33 50	110 70	110 75	115 80	115 75

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<sup>™</sup> - call for further details.

#### MAXIMUM CIRCUIT LENGTH

OUTPUT	MAX. CIRC	JIT LENGTH*	ZONE LENG	GTH (NOM.)
(W/m)	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

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

#### POWER CONVERSION FACTORS

115V HEATING TAPE	230V HEATING TAPE
<ul> <li>277V Multiply output by 5.80</li> <li>230V Multiply output by 4.00</li> <li>208V Multiply output by 3.27</li> <li>120V Multiply output by 1.09</li> <li>110V Multiply output by 0.91</li> </ul>	<ul> <li>277V Multiply output by 1.45</li> <li>240V Multiply output by 1.09</li> <li>220V Multiply output by 0.91</li> <li>208V Multiply output by 0.82</li> <li>115V Multiply output by 0.25</li> </ul>



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