

Electrical heating tape for process temperature maintenance of pipework and vessels in safe or hazardous areas.



Constant Wattage Heating Tape

- Withstand temperatures up to 200°C
- Outputs available to 33W/m
- Can be cut to length without waste

- CENELEC approved for use in hazardous areas
- Full range of controls and accessories
- Available for 110/120 and 220/240VAC

FEATURES

Minitracer type MTFJ is a constant wattage heating tape that can be used for freeze protection or maintenance of process temperatures in pipe and vessels.

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

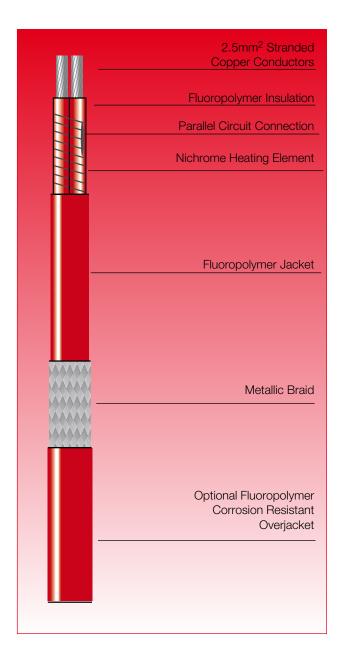
MTFJ is CENELEC approved for use in hazardous areas.

The installation of MTFJ heating tape is quick and simple and requires few special skills or tools. Termination and power connection components are all provided in convenient kits.

OPTIONS

MTFJ.. C Tinned Copper braid for non-hazardous areas, hazardous areas (Zone 1 or 2) or where traced equipment does not provide an effective earth path.

MTFJ .. CF Fluoropolymer over jacket over tinned copper braid provides corrosion protection for braid where chemical solutions or vapours may be present.







SPECIFICATION

MAXIMUM TEMPERATURE Un-energised 200°C (392°F)

MINIMUM INSTALLATION TEMPERATURE

-40°C (-40°F)

TEMPERATURE 200°C (T3) CLASSIFICATION T4 (135°C) T5 (100°C) or T6 (85°C)

Devices are classified according to rated output and the conditions of use. ie. limited pipe temp

POWER SUPPLY

220 - 240 VAC or 110 - 120 VAC

WEIGHTS AND DIMENSIONS

| Type Ref | Nom. Dims. (mm)+/-0.5 | Weight kg/100m | Min. Bending radius (mm) | Gland Size |
|-----------------|-------------------------------------|----------------|--------------------------|-------------------|
| MTFJC MTFJCF | 8.1 x 4.7 9.1 x 5.7 9.9 x 6.5 | 6 9 11 | 20 25 30 | M16 M16 M20 |

APPROVAL DETAILS

ATEX EXCENELEC Standard EXCENELEC

Certificate No: Sira 02ATEX3077 Certificate No. SCS Ex 94D3114 EN50014:1992 & EN50019:1994 Zone 1 and 2

CONSTRUCTION

| Heating Element | Nickel Chromium |
|-------------------------|--|
| Power Conductors | Tinned Plated Copper 2.5mm ² |
| Conductor Insulation | Fluoropolymer (FEP) and Silicone Rubber |
| Jacket | Fluoropolymer (FEP) |
| Braid | Tinned Copper |
| Over Jacket (optional) | Fluoropolymer (FEP) |

ORDERING INFORMATION

| Example | 23MTFJ2-CF |
|------------------------------|------------|
| Output 23W/m | TTTT |
| Minitracer type MTFJ | |
| 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. Suchitems 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 or the Temperature Classification (if installed in a hazardous area). 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)

| CAT REF | NOM OUTPUT | AREA CLASSIFICAT | | ION | | | | |
|------------|-----------------------|--------------------|--------------------|----------------------|------------|--------------------------|------------|--------------------------|
| | | | HA | AZAF | RDOU | S ¹ | | SAFE ² |
| | (W/m) | T6 | T5 | T4 | Т3 | T2 | T1 | |
| MTFJ | 6.5 13 23 33 | | NC | OT AF | PRO | VED | | 190 176 139 97 |
| MTFJC | 6.5 13 23 33 | 54 30 - - | 72 45 - | 115 87 47 - | 173 144 | 190 179 149 107 | 179 149 | 190 179 149 107 |
| MTFJCF | 6.5 13 23 33 | 54 21 - - | 74 41 - - | 121 90 39 - | 180 152 | 190 187 159 108 | 185 159 | 190 185 159 108 |

Pipe temperatures higher than those given above may be accommodated by using Heat Trace Ltd voltage compensating devices eg. POWERMATCH $^{\text{TM}}$ - call for further details.

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

Notes

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

MAXIMUM CIRCUIT LENGTH

| OUTPUT (W/m) | MAX. CIRC | UIT LENGTH* 230V | ZONE LENG | GTH (NOM.) 230V |
|-----------------|-----------|---------------------|-----------|--------------------|
| 6.5 | 111m | 212m | 1000mm | 1500mm |
| 13 | 78m | 150m | 800mm | 1100mm |
| 23 | 59m | 113m | 900mm | 1000mm |
| 33 | 49m | 94m | 750mm | 1000mm |

^{*}For ±10% end-to-end power output variation

POWER CONVERSION FACTORS

| 277V | Multiply output by 5.80 |
|------|-------------------------|
| 230V | Multiply output by 4.00 |
| 208V | Multiply output by 3.27 |
| 120V | Multiply output by 1.09 |
| 110V | Multiply output by 0.91 |

115V HEATING TAPE

| 230V | HEATING TAPE |
|------|-------------------------|
| 277V | Multiply output by 1.45 |
| 240V | Multiply output by 1.09 |
| 220V | Multiply output by 0.91 |
| 208V | Multiply output by 0.82 |
| 115V | Multiply output by 0.25 |



Mere's Edge, Chester Road, Helsby, Frodsham, Cheshire, WA6 0DJ, England Tel: +44(0)1928 726 451 Fax: +44(0)1928 727 846 www.heat-trace.com