MTFJ

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

- Can be cut-to-length.
- Available for 110-120VAC and 220-240VAC.
- Power outputs up to 33W/m.

- Suitable for use in safe, hazardous and corrosive areas.
- Full range of controls and accessories available.

DESCRIPTION

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

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

MTFJ is approved for use in hazardous areas.

The installation of MTFJ heating cable 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.

Stranded Copper Conductors.
Fluoropolymer Electrical Insulation.
Silicone Insulation.
Parallel Circuit Connection.
Nichrome Heating Element.
Fluoropolymer Jacket.
Metallic Braid.

Optional Fluoropolymer Corrosion Resistant Overjacket.
**SPECIFICATION**

**MAXIMUM** Un-energised 200ºC (392ºF)

**TEMPERATURE**

**MINIMUM INSTALLATION**

**TEMPERATURE:** -40ºC (-40ºF)

**TEMPERATURE**

**CLASSIFICATION:** See workpiece temperature table.

**POWER SUPPLY:** 12 - 277 VAC

**WEIGHTS & DIMENSIONS:**

<table>
<thead>
<tr>
<th>Type</th>
<th>Dimensions (mm)</th>
<th>Weight kg/100m</th>
<th>Min Bend Radius</th>
<th>Gland Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTFJ..C</td>
<td>9.1 x 5.7</td>
<td>9.0</td>
<td>25mm</td>
<td>M16</td>
</tr>
<tr>
<td>MTFJ..CF</td>
<td>9.9 x 6.5</td>
<td>11.0</td>
<td>30mm</td>
<td>M20</td>
</tr>
</tbody>
</table>

**APPROVAL DETAILS:**

<table>
<thead>
<tr>
<th>Testing Authority</th>
<th>Certificate No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEX</td>
<td>ex Sira 02ATEX3077</td>
</tr>
<tr>
<td>IEC</td>
<td>02Y3067</td>
</tr>
</tbody>
</table>

**CONSTRUCTION:**

- Heating Element: Nickel Chromium
- Power Conductors: Tinned Plated Copper 2.5mm²
- Conductor Insulation: Fluoropolymer & Silicone Rubber
- Jacket: Fluoropolymer
- Braid: Tinned Copper
- Over Jacket (optional): Fluoropolymer

**ORDERING INFORMATION:**

- Example: 23MTFJ 2-CF

**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 cable. 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:

<table>
<thead>
<tr>
<th>Catalogue Ref.</th>
<th>Nominal Output (W/m)</th>
<th>Hazardous Zone</th>
<th>Safe Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTFJ..C</td>
<td>6.5</td>
<td>54</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>45</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>-</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MTFJ..CF</td>
<td>6.5</td>
<td>74</td>
<td>121</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>21</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Pipe temperatures higher than those given above may be accommodated by using Heat Trace Ltd voltage compensating devices. Please call for further details.

**Notes**

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

**MAXIMUM CIRCUIT LENGTH:**

<table>
<thead>
<tr>
<th>OUTPUT (W/m)</th>
<th>MAX. CIRCUIT LENGTH*</th>
<th>ZONE LENGTH (NOM.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>115V</td>
<td>230V</td>
<td>115V</td>
</tr>
<tr>
<td>6.5</td>
<td>111m</td>
<td>212m</td>
</tr>
<tr>
<td>13</td>
<td>78m</td>
<td>150m</td>
</tr>
<tr>
<td>23</td>
<td>59m</td>
<td>113m</td>
</tr>
<tr>
<td>33</td>
<td>49m</td>
<td>94m</td>
</tr>
</tbody>
</table>

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

**POWER CONVERSION FACTORS:**

- **115V Heating Cable**: 277V x output by 5.8
- **230V Heating Cable**: 277V x output by 1.45
- **208V**: 240V x output by 1.09
- **208V**: 220V x output by 0.91
- **120V**: 208V x output by 0.82
- **110V**: 115V x output by 0.25

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