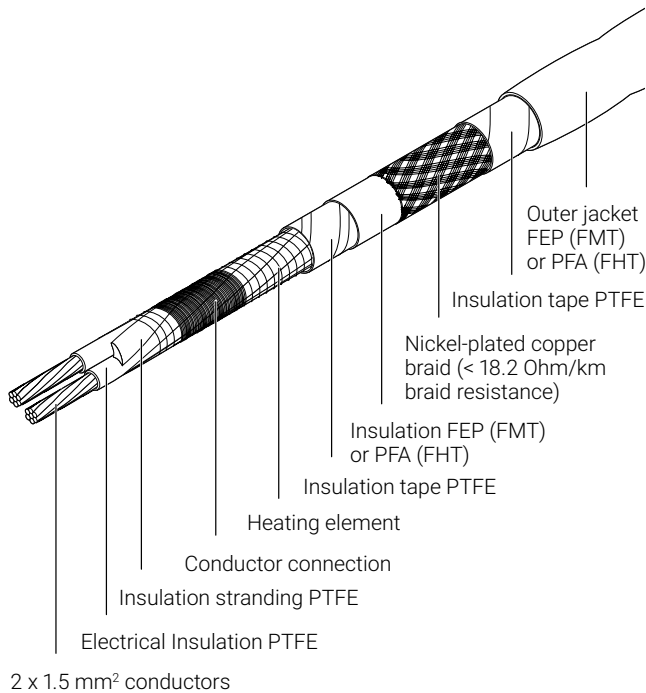


CONSTANT WATTAGE PARALLEL CIRCUIT HEATING CABLE



HEATING CABLE CONSTRUCTION


nVent RAYCHEM FMT and FHT are constant wattage parallel circuit heating cables designed for pipe and equipment heat-tracing in industrial applications. This family offers an economical alternative to our self-regulating heating cables but requires more skill for installation and also requires more advanced control and monitoring systems. Its unique round geometry provides excellent flexibility during installation as it allows for bending in every direction. The heating element which is the most fragile part of any constant wattage parallel circuit heating cable is protected by a PTFE insulation tape that eliminates shear stresses during flexing and also acts as a shock absorber, thereby providing a high level of protection. The heating cables can be used for frost protection and process temperature maintenance requiring high power output. The heating cables are zone parallel heaters constructed from a heating element wrapped around two parallel conductors. The distance between conductor contact points forms the heating zone length. The parallel construction allows it to be cut-to-length and terminated in the field. FMT heating cables can withstand routine steam purges and temperature exposure to 200°C power off. They can be used to maintain temperatures up to 150°C (depending on cable type) and are only available in a 230 Vac version.

FHT heating cables can withstand routine steam purges and temperature exposure to 260°C power off. They can be used to maintain temperatures up to 230°C (depending on cable type) and are available for 230 Vac and 400 Vac supplies. The 400 Vac version offers a further advantage of long circuit lengths reducing the cost of the electrical installation.

APPLICATION

| | |
|---------------------|---|
| Area classification | Hazardous, Zone 1, Zone 2 (Gas), Zone 21, Zone 22 (Dust) Ordinary |
| Traced surface type | Carbon steel, Stainless steel, Painted or unpainted metal |
| Chemical resistance | Organics and corrosives For aggressive organics and corrosives consult your local nVent representative |

APPROVALS

The FMT and FHT heating cables are approved for use in hazardous areas by Baseefa Ltd.
Baseefa08ATEX0050X & IECEx BAS 08.0019X
 II 2GD Ex e II T* (See Schedule) Ex tD A21 IP66
Ex e II T* (See Schedule) Ex tD A21 IP66

*By design. Temperature classification (T-rating) has to be established by using the principles of stabilised design or the use of a temperature limiting device. Use TraceCalc design software or contact nVent.

SPECIFICATIONS

| | FMT2 | FHT2 | FHT4 |
|---|---------------|---------------|---------------|
| Supply voltage | 190 - 277 Vac | 190 - 277 Vac | 385 - 415 Vac |
| Maximum continuous exposure temperature (power off) | 200°C | 260°C | 260°C |
| Cold lead/heating zone length | 1.5 m | 1.5 m | 2.5 m |
| Minimum installation temperature | -40°C | -60°C | -60°C |
| Size | Ø 7.5 mm | Ø 7.5 mm | Ø 7.5 mm |
| Minimum bend radius | 25 mm | 25 mm | 25 mm |
| Minimum clearance | 50 mm | 50 mm | 50 mm |
| Colour | White | Green | Violet |

MAXIMUM CIRCUIT LENGTHS TABLE IN METERS

Maximum circuit length based on 16 A type 'C' circuit breakers according to EN 60898. The use of larger circuit breaker sizes (up to 40 A) is permitted provided that the lengths of individual continuous lengths do not exceed the numbers below.

| Voltage/Heating cable | 10FxT2 | 20FxT2 | 30FxT2 | 40FHT2 | 10FHT4 | 20FHT4 | 30FHT4 |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|
| 230 Vac | 200 | 150 | 120 | 85 | - | - | - |
| 400 Vac | - | - | - | - | 330 | 235 | 190 |

The above numbers are for circuit length estimation only. For more detailed information please use the nVent RAYCHEM TraceCalc software or contact your local nVent representative. nVent requires the use of a 30 mA residual current device to provide maximum safety and protection from fire.

Where design results in higher leakage current, the preferred trip level for adjustable devices is 30 mA above any inherent capacitive leakage characteristic of the heater as specified by the trace heater supplier or alternatively, the next common available trip level for non adjustable devices, with a maximum of 300 mA. All safety aspects need to be proven.

HAZARDOUS AREA DESIGN TABLES

(for other voltages or non-hazardous areas use TraceCalc Pro or contact nVent representative) The shaded temperature values listed in the table below represent the maximum design surface temperature permitted for a work piece for temperature classification T6, T5, T4, T3 and 260°C (FHT only).

Minimum clearance: 50 mm

| Heating Cable | Voltage (Vac) | Nominal Power output (W/m) | Max.Power Output (W/m) | Temperature classification | | | | |
|---------------|---------------|----------------------------|------------------------|----------------------------|------------|------------|------------|------------|
| | | | | T6 (85°C) | T5 (100°C) | T4 (135°C) | T3 (200°C) | T2 (260°C) |
| 10FxT2-CT | 230 | 10 | 12.7 | 8°C | 26°C | 69°C | 147°C | 225°C |
| 20FxT2-CT | 230 | 20 | 25.5 | - | - | 19°C | 109°C | 200°C |
| 30FxT2-CT | 230 | 30 | 38.2 | - | - | - | 65°C | 169°C |
| 40FHT2-CT | 230 | 40 | 51.0 | - | - | - | 8°C | 131°C |
| 10FHT4-CT | 400 | 10 | 12.7 | 30°C | 48°C | 90°C | 169°C | 247°C |
| 20FHT4-CT | 400 | 20 | 25.5 | - | - | 30°C | 121°C | 212°C |
| 30FHT4-CT | 400 | 30 | 38.2 | - | - | - | 95°C | 195°C |

| FxT2-CT | 230 Vac | 254 Vac | 277 Vac | 385 Vac | 400 Vac | 415 Vac |
|----------------|---------|---------|---------|---------|---------|---------|
| Circuit length | 1.00 | 1.00 | 1.00 | - | - | - |
| Power output | 1.00 | 1.22 | 1.45 | - | - | - |
| FHT4-CT | | | | | | |
| Circuit length | - | - | - | 1.00 | 1.00 | 1.00 |
| Power output | - | - | - | 0.93 | 1.00 | 1.08 |

ORDERING DETAILS

| Part description & Part No. | Part description & Part No. | Part description & Part No. |
|-----------------------------|-----------------------------|-----------------------------|
| 10FMT2-CT: 1244-006057 | 10FHT2-CT: 1244-006060 | 10FHT4-CT: 1244-006064 |
| 20FMT2-CT: 1244-006058 | 20FHT2-CT: 1244-006061 | 20FHT4-CT: 1244-006065 |
| 30FMT2-CT: 1244-006059 | 30FHT2-CT: 1244-006062 | 30FHT4-CT: 1244-006066 |
| | 40FHT2-CT: 1244-006063 | |

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