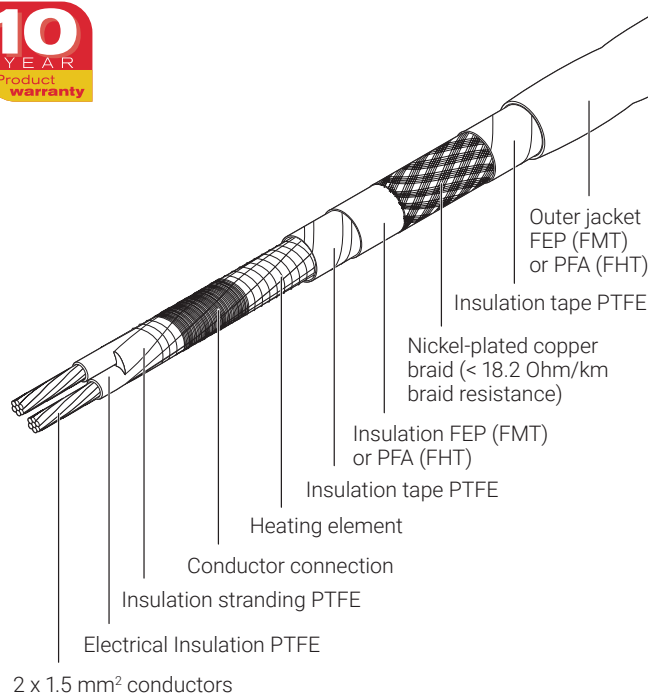


### Constant wattage parallel circuit heating cable

#### PRODUCT OVERVIEW



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

|                     |                                                                                                           |
|---------------------|-----------------------------------------------------------------------------------------------------------|
| Traced surface type | Carbon steel, Stainless steel,<br>Painted or unpainted metal                                              |
| Chemical resistance | Organics and corrosives<br>For aggressive organics and corrosives consult your local nVent representative |

#### PRODUCT SPECIFICATIONS

##### Dimensions (mm)

|      | FMT2  | FHT2  | FHT4  |
|------|-------|-------|-------|
| Size | Ø 7.5 | Ø 7.5 | Ø 7.5 |

## Technical details

|                                                     | 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         |
| Minimum bending radius                              | -60°C ≤ T < -20°C: 25 mm<br>-20°C ≤ T < -10°C: 20 mm<br>-10°C ≤ T < +10°C: 15 mm<br>T ≥ +10°C: 12 mm |               |               |
| Minimum clearance                                   | 50 mm                                                                                                | 50 mm         | 50 mm         |
| Colour                                              | White                                                                                                | Green         | Violet        |

## Maximum circuit length based on type 'C' circuit breakers according EN 60898

| Voltage | Heating cable (nominal power: W/m) |                   |                   |        |        |        |        |
|---------|------------------------------------|-------------------|-------------------|--------|--------|--------|--------|
|         | 10FMT2/<br>10FHT2                  | 20FMT2/<br>20FHT2 | 30FMT2/<br>30FHT2 | 40FHT2 | 10FHT4 | 20FHT4 | 30FHT4 |
| 230 Vac | 200 m                              | 150 m             | 120 m             | 85 m   | -      | -      | -      |
| 400 Vac | -                                  | -                 | -                 | -      | 330 m  | 235 m  | 190 m  |

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.

## Maximum maintain or continuous exposure temperature °C (power on)

| Heating cable | Nominal power output (W/m) | 230 V a.c. | 254 V a.c. | 277 V a.c. |
|---------------|----------------------------|------------|------------|------------|
| 10FMT2-CT     | 10                         | 153        | 153        | 144        |
| 20FMT2-CT     | 20                         | 129        | 116        | 97         |
| 30FMT2-CT     | 30                         | 94         | 71         | 36         |
| 10FHT2-CT     | 10                         | 229        | 225        | 219        |
| 20FHT2-CT     | 20                         | 209        | 199        | 187        |
| 30FHT2-CT     | 30                         | 184        | 168        | 143        |
| 40FHT2-CT     | 40                         | 154        | 130        | 87         |
|               |                            | 385 V a.c. | 400 V a.c. | 415 V a.c. |
| 10FHT4-CT     | 10                         | 250        | 250        | 249        |
| 20FHT4-CT     | 20                         | 224        | 221        | 218        |
| 30FHT4-CT     | 30                         | 212        | 208        | 205        |

## APPROVALS

For use in ordinary and hazardous area Zone 1 and Zone 2 (Gas), Zone 21 and Zone 22 (Dust)

### Temperature classification

FHT: T6...T2

FMT: T6...T3

nVent RAYCHEM heat-tracing products are approved for the listed temperature classifications by using the principles of stabilized design. Use TraceCalc design software or contact nVent.

### Product certification



More details about product certification, approvals and conditions of safe use are available in the installation manual for the Self-regulating and Power limiting heating cable systems at [www.nvent.com/RAYCHEM](http://www.nvent.com/RAYCHEM).

## ORDERING INFORMATION

| 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      |                             |

### North America

Tel +1.800.545.6258  
Fax +1.800.527.5703  
thermal.info@nVent.com

### Europe, Middle East, Africa

Tel +32.16.213.502  
Fax +32.16.213.604  
thermal.info@nVent.com

### Asia Pacific

Tel +86.21.2412.1688  
Fax +86.21.5426.3167  
cn.thermal.info@nVent.com

### Latin America

Tel +1.713.868.4800  
Fax +1.713.868.2333  
thermal.info@nVent.com



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