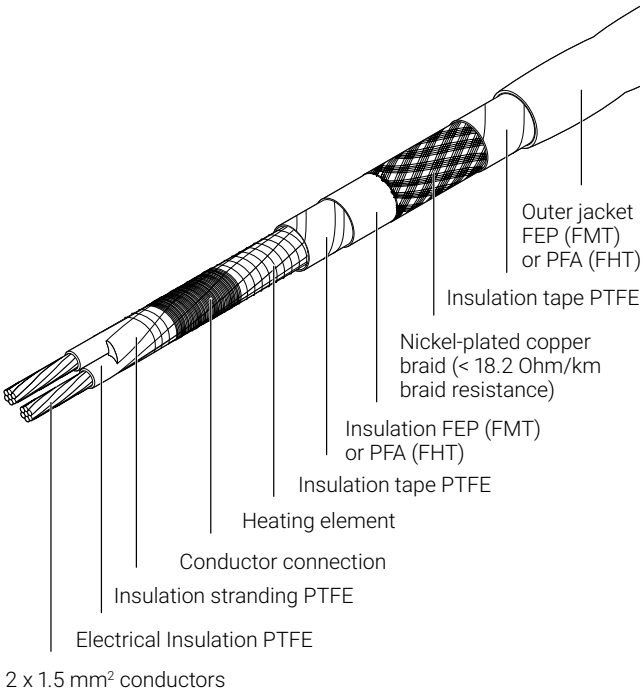
FMT AND FHT

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
Ⓔx 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	∅ 7.5 mm	∅ 7.5 mm	∅ 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

				Temperature classification				
Heating Cable	Voltage (Vac)	Nominal Power output (W/m)	Max.Power Output (W/m)	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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