PHT CE 0518

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

POWERHEAT

Constant Wattage Heating Cable

- *Withstand temperatures up to 285°C*
- *Outputs available to 70W/m*
- *Can be cut to length with no wastage*
- *Approved & certified for use in hazardous areas*
- *Full range of controls and accessories*
- *Available for 110/120 and 220/240VAC*

FEATURES

Powerheat type PHT is a constant wattage heating cable manufactured in accordance with the latest International Standards. It can be used for freeze protection or maintenance of process temperatures in pipework and vessels.

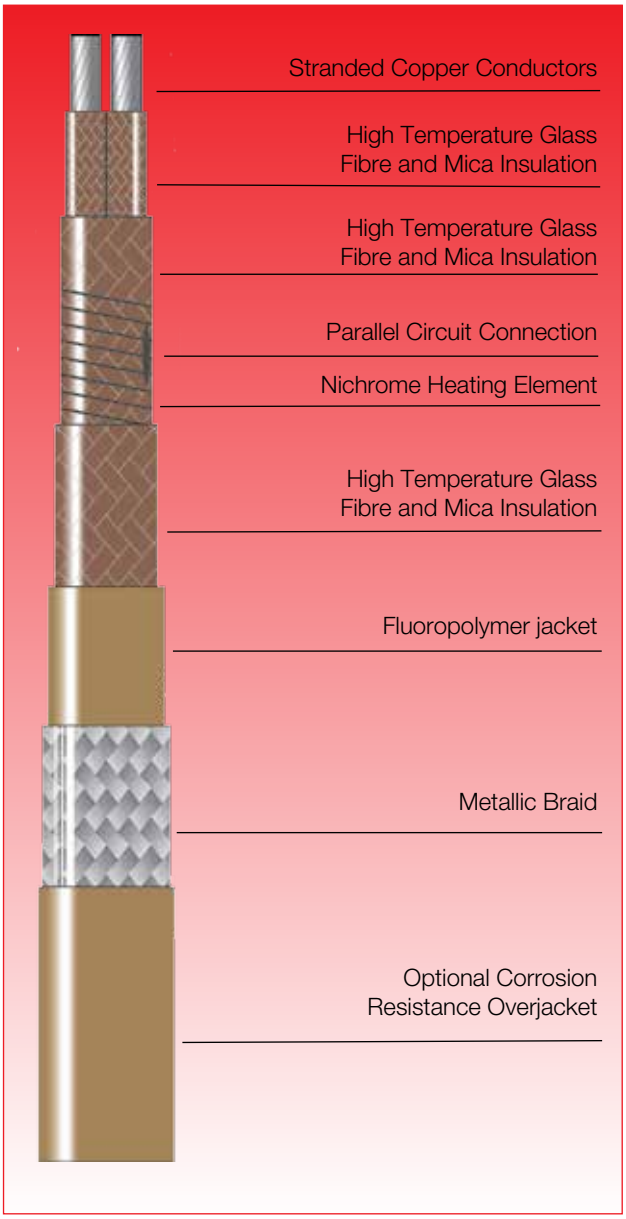
It can be cut-to-length at site and can replace mineral insulated (MI) cables for applications where the cut-to-length feature, or field fabricated heating cable is preferred.

PHT is approved for use in hazardous areas.

The installation of PHT heating cable is quick and simple and requires no special skills or tools. Termination and power connection components are all provided in convenient kits.

OPTIONS

PHT .. N	Nickel Plated Copper braid for non-hazardous areas, hazardous areas (Zone 1 or 2) or where traced equipment does not provide an effective earth path.
PHT .. NF	Fluoropolymer over jacket over nickel plated copper braid provides corrosion protection for braid where chemical solutions or vapours may be present.



SPECIFICATION

MAXIMUM CONTINUOUS EXPOSURE TEMPERATURE (Power OFF):	285°C (545°F)
MAXIMUM PERMISSABLE EXPOSURE TEMPERATURE (Power ON):	See workpiece Temperature table
MINIMUM INSTALLATION TEMPERATURE	–40°C (–40°F)
POWER SUPPLY	12 - 277 VAC

WEIGHTS & DIMENSIONS

Type Ref	Nom. Dims. (mm)	Weight kg/100m	Min. Bending radius (mm)	Gland Size
PHT..N	10.23 x 7.1	15	45	M20
PHT..NF	11.13 x 8.0	17	50	M20

APPROVAL DETAILS

ATEX CML 17ATEX3169

IECEx IECEx CML 17.0084

CONSTRUCTION

Heating Element	Nickel Chromium
Power Conductors	Nickel Plated Copper
Conductor Insulation	Glass/Mica
Primary Insulation	Glass/Mica
Jacket	Fluoropolymer
Braid	Nickel Plated Copper
Over Jacket (optional)	Fluoropolymer

ORDERING INFORMATION

Example 70PHT2-NF

- Output 70W/m
- Powerheat type PHT
- Supply Voltage 220 - 240 VAC
- Nickel Plated Copper Braid
- Fluoropolymer overjacket

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 those issued for the heating cables. When used in hazardous areas, only use approved components from HTL.

MAXIMUM PIPE / WORKPIECE TEMPERATURES (°C)

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:-

CAT REF	NOM OUTPUT	AREA CLASSIFICATION						
		HAZARDOUS[1]						SAFE[2]
	(W/m)	T6	T5	T4	T3	T2	T1	
PHT..N	10	43	60	100	181	275	275	275
	30	-	-	25	114	234	234	234
	50	-	-	-	49	186	186	186
	70	-	-	-	-	125	125	125
PHT..NF	10	39	59	106	186	275	275	275
	30	-	-	20	133	243	243	243
	50	-	-	-	64	201	201	201
	70	-	-	-	-	147	147	147

Pipe temperatures higher than those given above may be accommodated by using Heat Trace Ltd voltage compensating devices eg. POWERMATCH™ - contact HTL for further details.

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

Notes

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

MAXIMUM CIRCUIT LENGTH

OUTPUT (W/m)	MAX. CIRCUIT LENGTH* 115V	230V	ZONE LENGTH (NOM.) 115V	230V
10	79m	152m	contact your local	
30	46m	88m	Heat Trace representitive	
50	35m	68m	for details.	
70	30m	56m		

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

POWER CONVERSION FACTORS * See Note below

115V HEATING CABLE		230V HEATING CABLE	
277V	Multiply output by 5.80	277V	Multiply output by 1.45
230V	Multiply output by 4.00	240V	Multiply output by 1.09
208V	Multiply output by 3.27	220V	Multiply output by 0.91
120V	Multiply output by 1.09	208V	Multiply output by 0.82
110V	Multiply output by 0.91	115V	Multiply output by 0.25

* Note

Maximum power output of cable in hazardous area should not exceed 70W/m. Do not use voltage multiplier if resulting power output exceeds 70W/m.

HEAT TRACE™
SETTING THE STANDARDS LEADING THE WAY

Mere's Edge, Chester Road, Helsby, Frodsham, Cheshire WA6 0DJ, UK
Tel: +44(0)11928 726 451 Fax: +44(0)11928 727 846 http://www.heat-trace.com

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