

# AHT

# 500°C

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

**POWERHEAT**  
Constant Wattage Heating Cable

- Can be cut-to-length.
- Available for 110-120V AC/DC and 220-240V AC/DC.
- Power outputs up to 150W/m.
- Suitable for use in safe, hazardous and corrosive areas.
- Continuous aluminium outer-jacket.
- Full range of controls and accessories available.

## DESCRIPTION

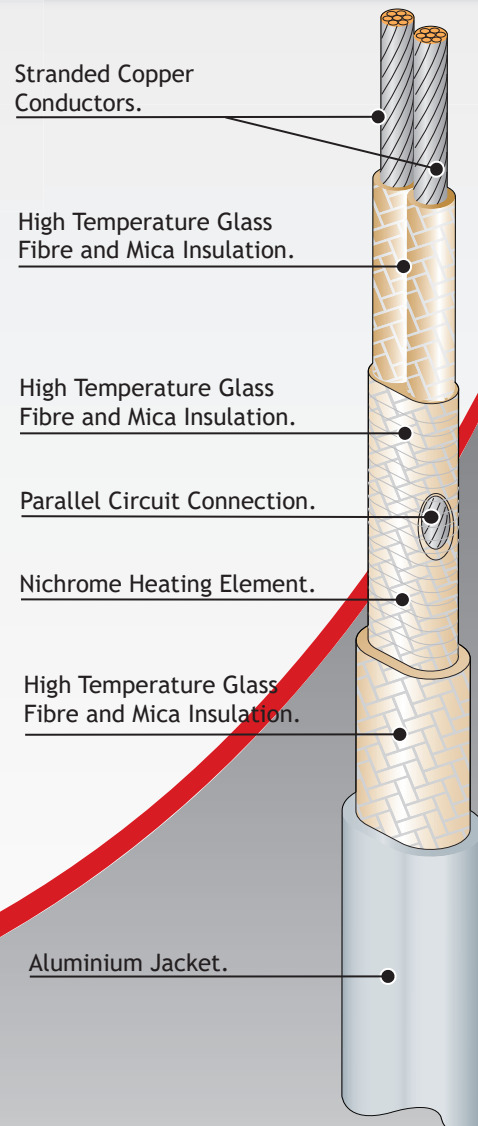
POWERHEAT Type AHT is a constant wattage heating cable that can be used for freeze protection or temperature maintenance of process temperatures in pipework and vessels.

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.

AHT is approved for use in non-hazardous and hazardous areas to world wide standards.

The installation of AHT heating cable is quick and simple, and requires few special skills or tools. Termination and power connection components are all provided in convenient kits.

AHT is jacketted in a continuous aluminum extrusion for maximum mechanical strength.



The **Heat Tracing Authority**™

## SPECIFICATION

**MAXIMUM EXPOSURE TEMPERATURE** Continuous 500°C (932°F)

**MINIMUM OPERATING TEMPERATURE:** -40°C (-40°F)

**MINIMUM INSTALLATION TEMPERATURE:** -40°C (-40°F)

**TEMPERATURE CLASSIFICATION:** See workpiece temperature table.


**POWER SUPPLY:** 12 - 277 V AC/DC

**INGRESS PROTECTION:** IP67

### WEIGHTS & DIMENSIONS:

Type Ref	Dimensions (mm) +/-0.5	Weight kg/100m	Min Bend radius	Gland Size
AHT	10.7 x 7.7	16.5	50mm	M20

### APPROVAL DETAILS:

Testing Authority	Certificate No.
ATEX 	CML 19ATEX3387
IECEX 	IECEX CML 19.0130
CNEX 	CNEX19.1551U
DNV 	TAE000021KD
UKEX 	CML 21UKEX31142
CCC 	2020312312000117

### CONSTRUCTION:

Heating Element	Nickel Chromium
Power Conductors	Nickel Plated Copper
Conductor Insulation	Glass/Mica
Primary Insulation	Glass/Mica
Jacket	Aluminium

### ORDERING INFORMATION:

Example 50AHT2  
Nominal Output 50W/m \_\_\_\_\_  
Powerheat Type AHT \_\_\_\_\_  
Supply Voltage 220-277 V AC/DC \_\_\_\_\_

### ATEX, IECEX & UKEX MARKINGS:

Ex II 2 G D  
Ex 60079-30-1 IIC T6...T1 Gb  
Ex 60079-30-1 IIIC T85°C...T450°C Db  
BS EN IEC 60079-0  
BS EN 60079-30-1:2017  
BS EN 60079-31

### 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:-

Area Classification	Hazardous <sup>1</sup>	Safe <sup>2</sup>
	T6 T5 T4 T3 T2 T1	

Catalogue Ref.

10AHT	34	50	100	188	290	340	340
15AHT	-	36	71	160	289	350	350
30AHT	-	11	28	100	246	323	323
50AHT	-	-	-	39	178	276	276
70AHT	-	-	-	-	48	140	140
100AHT	-	-	-	-	48	140	140
150AHT	-	-	-	-	-	36	36

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

Tolerances: 115/230V + 10%; Resistance + 10%; -0%

The above data is for 230V heaters. For 277V heaters, contact your local Heat Trace Representative

### Notes

- 1 Surface temperature limits in accordance with EN60079.
- 2 Surface temperature limited by materials of construction (withstand temperature).

### MAXIMUM CIRCUIT LENGTH\*

Catalogue Ref.	115V	230V/277V
15AHT	59m	118m
30AHT	42m	83m
50AHT	32m	64m
70AHT	26m	54m
100AHT	23m	46m
150AHT	19m	37m

\*For 10% volt drop variation

### POWER CONVERSION FACTORS

115V HEATING TAPE	230V HEATING TAPE
125V Multiply output by 1.18	277V Multiply output by 1.45
120V Multiply output by 1.09	240V Multiply output by 1.09
110V Multiply output by 0.91	220V Multiply output by 0.91
100V Multiply output by 0.76	208V Multiply output by 0.82

### 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 cables. When used in hazardous areas, only use approved components.



Heat Trace Ltd, Mere's Edge, Chester Road, Helsby, Frodsham, Cheshire, WA6 0DJ, England.  
Tel: +44 (0)1928 726451  
www.heat-trace.com Email: info@heat-trace.com

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