

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

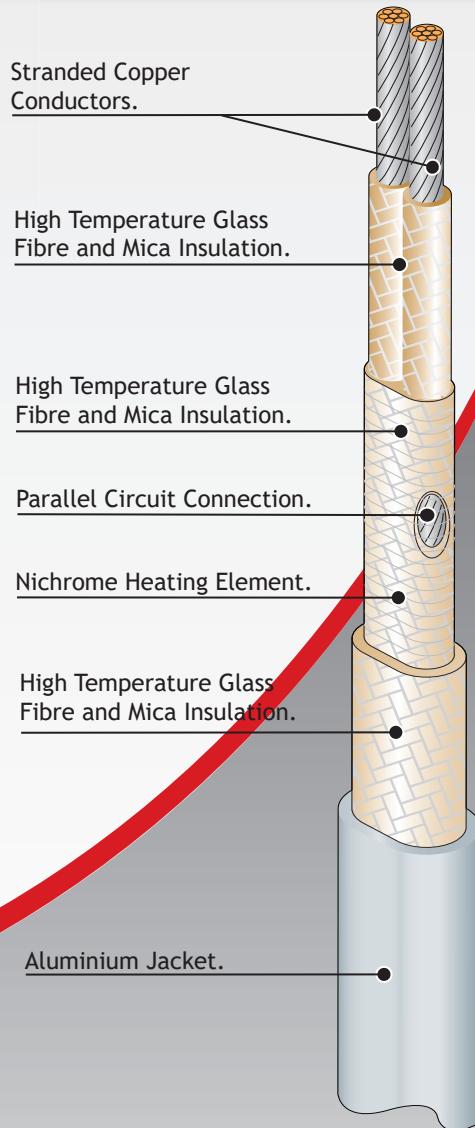
POWERHEAT Type AHT is a constant wattage heating cable that can be used for freeze protection or temperature maintenance of process temperatures in pipework and vessels.

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.



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 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 ¹ | | | | | Safe ² | |
|---------------------|------------------------|----|-----|-----|-----|-------------------|-----|
| | 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.



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