

Electrical heating cable for the heating of moderately long pipelines.

LONGLINE

High Efficiency Series Resistance Single Conductor Heating Cable

- Circuit lengths up to 5km.
- Single supply point - minimises supply cabling costs.
- Available up to 600VAC.
- Power outputs up to 23W/m.
- Easy installation in convenient lengths.
- Full range of controls and accessories available.

FEATURES

LONGLINE HTP1F is a series resistance, single conductor heating cable supplied in multiples of 3 cables for configuring with a 3 phase heating system.

Construction

The insulated conductors are sheathed with thermoplastic for flexibility. A copper braid and overjacket can be provided for additional mechanical protection or for grounding purposes.

The Design

The number of heating cables and their conductor sizes are designed to produce the desired heat output for the circuit length required. The LONGLINE heaters are connected directly to the 3 phase mains voltage or, when required, to a step-up transformer.

Improved Safety and Efficiency

The large heated surface of LONGLINE'S flat foil construction results in lower operating temperatures than equivalent round conductor constructions. Thus, improving safety and system life. The high efficiency produces a power capability up to 23W/m.

Installation

LONGLINE cable may be straight run or spiralled to above ground pipes. For buried lines, cables are usually drawn into channel raceways within a pre-insulated pipeline system.

Minimal Supply / Distribution Costs

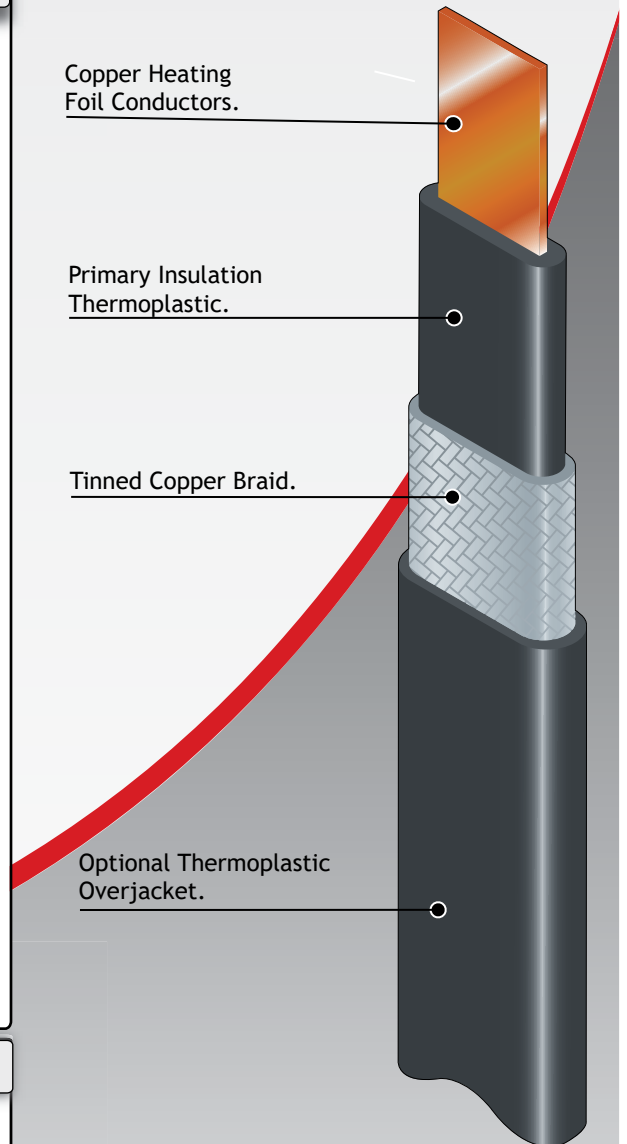
LONGLINE minimises the number of electrical supplies needed and so minimises supply cabling and distribution costs. Cable is provided in convenient lengths, eg. 200m for series connection at site.

Copper Heating Foil Conductors.

Primary Insulation Thermoplastic.

Tinned Copper Braid.

Optional Thermoplastic Overjacket.



LONGLINE - A COMPLETE SYSTEM

Reliability of the heating system is usually paramount. LONGLINE cables form only part of a high integrity LONGLINE heating system. This includes power control, temperature control and circuit health monitoring or alarm equipment - all specifically developed and produced by Heat Trace Limited.

SPECIFICATION

MAXIMUM TEMPERATURE: Un-energised 125°C (257°F)

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

POWER SUPPLY: Up to 600V 3 phase according to design requirements

POWER OUTPUT: Up to 23W/m by design according to application requirements

HEATING CONDUCTOR THICKNESSES:

- i) 16mm wide
1.0, 1.25, 1.5mm
- ii) 20mm wide
1.75, 2.0mm

Please note that Heat Trace will size conductors to provide the required W/m output for required circuit length.

WEIGHTS AND DIMENSIONS

16mm Foil Width

| Type Ref | Dimensions (mm) +/-0.5 | Weight kg/100m | Min Bend Radius |
|-----------|------------------------|----------------|-----------------|
| HTP1F | 20.0 x 6.0 | 36 | 35mm |
| HTP1F..C | 21.0 x 7.0 | 44 | 35mm |
| HTP1F..CT | 22.0 x 8.0 | 65 | 75mm |

20mm Foil Width

| Type Ref | Dimensions (mm) +/-0.5 | Weight kg/100m | Min Bend Radius |
|-----------|------------------------|----------------|-----------------|
| HTP1F | 24.0 x 6.0 | 48 | 35mm |
| HTP1F..C | 25.0 x 7.0 | 58 | 35mm |
| HTP1F..CT | 27.0 x 8.0 | 86 | 75mm |

CONSTRUCTION:

| | |
|------------------------|---------------|
| Heating Conductors | Copper |
| Primary Insulation | Thermoplastic |
| Sheath | Thermoplastic |
| Braid (optional) | Tinned Copper |
| Over Jacket (optional) | Thermoplastic |

ORDERING INFORMATION:

Example HTP1F-CT/1.0

| | |
|--------------------------|-------|
| Thermoplastic Sheath | _____ |
| Single Heating Conductor | _____ |
| Tinned Copper Braid | _____ |
| Thermoplastic Overjacket | _____ |
| Conductor Thickness (mm) | _____ |

MAXIMUM PIPE / WORKPIECE TEMPERATURE

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:-

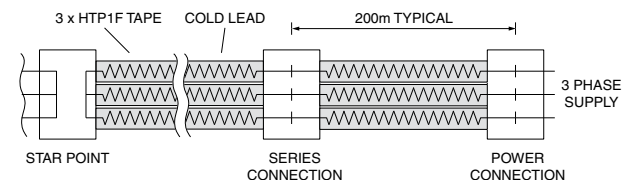
| HEATER NOMINAL OUTPUT (W/m) | MAXIMUM PERMISSIBLE PIPE TEMPERATURE (°C) | | |
|-----------------------------|---|---------|----------|
| | HTP1F | HTP1F-C | HTP1F-CT |
| 10 | 112 | 109 | 100 |
| 15 | 94 | 95 | 85 |
| 23 | 78 | 80 | 70 |

For conditions other than worst case or pipes of other materials (e.g. plastic, stainless steel), consult Heat Trace.

Tolerances: Voltage + 10%; Resistance ± 10%

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

TYPICAL ARRANGEMENT



ACCESSORIES

Heat Trace supply a complete range of accessories including termination/splice kits, end seals, junction boxes and controls.