HTS1F

230°C

Electrical heating cable for the heating of long pipelines.

LONGLINE

High Efficiency Series Resistance Single Conductor Heating Cable

- Circuit lengths up to 5km.
- Single supply point - minimises supply cabling costs.
- High efficiency, flat and flexible.
- High power outputs - up to 60W/m.
- For process temperature maintenance, freeze protection or heat raising.
- Easy installation in convenient lengths.

DESCRIPTION

LONGLINE HTS1F is a series resistance, single conductor heating cable supplied in multiples of 3 cables for configuring with a 3 phase heating system. It is used for freeze protection or process temperature maintenance of long pipelines, eg. up to 5km.

A typical application is the temperature maintenance of crude or fuel oils in above ground and buried transfer lines.

LONGLINE minimises the number of electrical supplies needed and so minimises supply cabling and distribution equipment costs. Circuits are often fed at the pipe ends only.

The single conductor is sheathed with silicone rubber for flexibility.

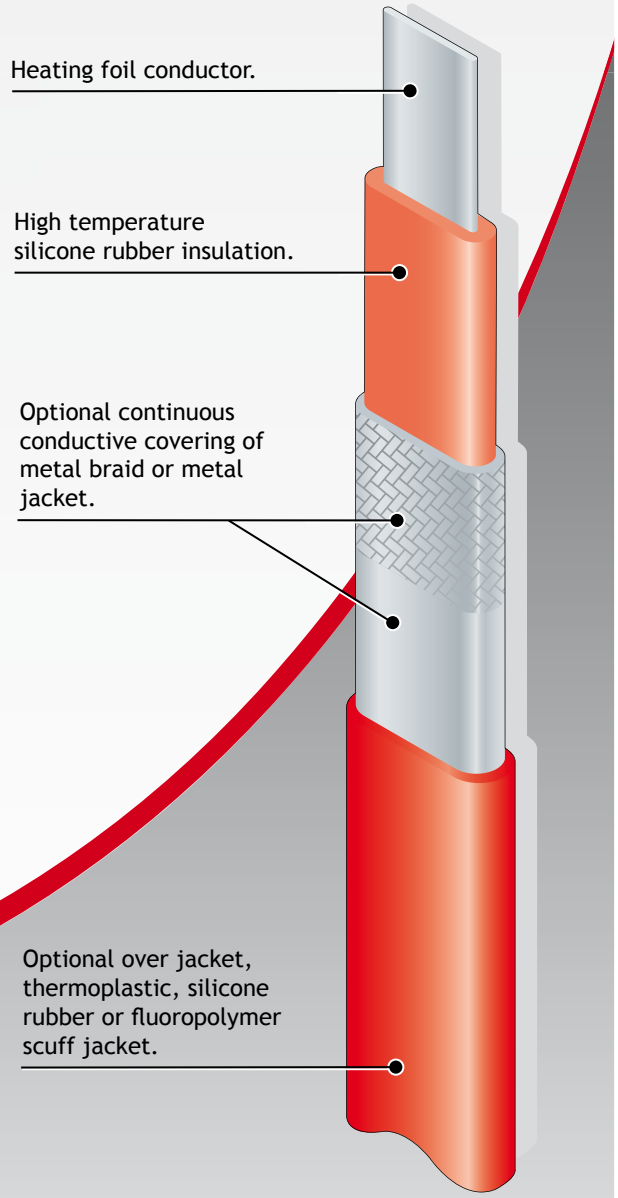
A continuous conductive cover and over-jacket can be provided for additional mechanicl protection or for grounding purposes.

The number of heating cables and their conductor sizes are designed to produce the desired 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.

The large heated surface of **LONGLINE'S** flat foil construction results in lower operating temperatures than equivalent round conductor contructions thereby improving safety and system life. The high efficiency produces high power capability (up to 60W/m) per cable.

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

Cable is provided in convenient lengths for series connection at site.



FM APPROVED 0518

HEAT TRACE™ SETTING THE STANDARDS LEADING THE WAY

40 Years 1974 - 2014

The Heat Tracing Authority™

LLDS0301 (Nov 15)

SPECIFICATION

MAXIMUM CONTINUOUS EXPOSURE TEMPERATURE (Power ON): 208°C (406°F)

MAXIMUM PERMISSABLE EXPOSURE TEMPERATURE (Power OFF): 230°C (446°F)

MINIMUM OPERATING TEMPERATURE: -80°C* (-112°F)

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

POWER SUPPLY: up to 5kV 3 phase according to application requirements

POWER OUTPUT: up to 60W/m by design according to application requirements

TEMPERATURE CLASSIFICATION:

Devices are classified according to rated output and the conditions of use. ie. limited pipe temp.

T2 (230°C)
T3 (200°C)
T4 (135°C)
T5 (100°C)
or T6 (85°C)

APPROVAL DETAILS: - Specific products

ATEX - Sira 03ATEX3292
FM - 3009080
EAC* - TC RU C-GB.ГБ05.B.00188

CONSTRUCTION:

Heating Conductors: Sized to suit application
Max Conductors Size: 8-16mm wide x 0.8-3.5mm thick
Insulation: Silicone Rubber
Continuous Conductive Covering: Braid/Aluminium
Over Jacket: Silicone, Thermoplastic or Fluoropolymer

ORDERING INFORMATION:

Example: **HTS1F-C or A F,T or S/1.5**

Silicone Rubber Sheath
One heating conductor
Continuous conductive cover
Optional over-jacket
Conductor thickness (mm)

LONGLINE - A COMPLETE SYSTEM:

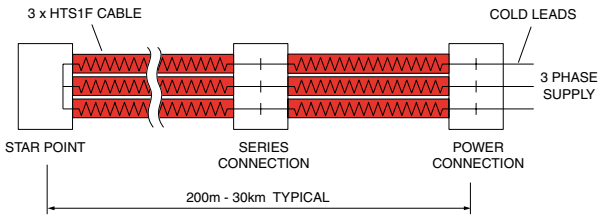
Reliability of the heating system is usually paramount. LONGLINE cables form only part of a high integrity LONGLINE heating system including power control, temperature control and circuit health monotoring/ alarm equipment - all specifically developed and produced by Heat Trace Ltd.

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.

Cat Ref	Nom. Output (W/m)	Area Classification Hazardous T6	T5	T4	T3	T2	T1	Safe
HTS1F	10							217
	20							189
	30							156
	40							128
	50							98
	60							50
HTS1F-x	10	47	66	107	181	217	217	217
	20	–	32	75	157	191	191	191
	30	–	–	41	132	163	163	163
	40	–	–	–	108	133	133	133
	50	–	–	–	76	97	97	97
	60	–	–	–	30	46	46	46
HTS1F-xS	10	57	73	112	181	207	207	207
	20	37	53	93	166	180	180	180
	30	–	31	73	152	157	157	157
	40	–	–	51	127	127	127	127
	50	–	–	27	92	92	92	92
	60	–	–	–	–	–	–	57
HTS1F-xF	10	57	73	112	181	192	192	192
	20	37	53	93	166	177	177	177
	30	–	31	73	152	165	165	165
	40	–	–	51	127	127	127	127
	50	–	–	27	92	92	92	92
	60	–	–	–	–	–	–	57

TYPICAL ARRANGEMENT:



CIRCUIT PROTECTION:

Circuit breakers, switch gear and supply cabling should be sized to cater for cold start-up conditions. Heat Trace Ltd will advise operating and start-up loads.

ACCESSORIES:

Heat Trace supply a complete range of accessories including termination/splice kits, end seals, junction boxes, controls and fixing tape. These items are recommended for the correct operation of LONGLINE products.

HEAT TRACE™
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