The Heat Tracing Authority™

www.heat-trace.com



July 2018

FRODSHAM, Cheshire, WA6 0DJ

www.heat-trace.com

Heat Trace Limited (HTL) is a British compar operating globally with representation in over 50

countries. We provide complete heat tracing solutions and are considered to be the industry Technical Leader in our field. Founded in the UK in 1974, HTL have been manufacturing electrical heating cables ever since. Heat Trace's emphasis on innovation means that we undertake extensive R&D to ensure we remain the technical leader in

Supplying products predominantly to the Oil, Gas & Petrochemical industries, both onshore and offshore, as well as to other industries, the company also specialises in multi-kilometre heated pipelines. Our LONGLINE series heating cables were installed on the World's first subsea, electrically heat traced, reeled, pipe-in-pipe system, in the North Sea. This project was in partnership with Technip UK for Total E&P. As a result of this successful project, interest in HTL's long pipeline heating system capability has resulted in our involvement with several major subsea, inshore, offshore and onshore multi-kilometre pipeline heating applications including down-hole heating.

Power Generation, both conventional and nuclear, is another sector where our products are used to provide innovative solutions for both low and high temperature applications for either complex in-plant pipework, or for very long pipelines.

HTL's 44 year+ history has resulted in a unique range of heat tracing products that offer the longest circuit lengths, the highest power outputs and the highest withstand temperatures, available from any heating cable manufacturer. An extensive range of heat tracing products, including constant power output, parallel and series resistance heaters, together with a very comprehensive range of self-regulating heaters, is available for use in all market sectors.

Our 40th anniversary in 2014 saw HTL win our second Queen's Award for Enterprise, this time in the Innovation category, for the continuing development in the field of specialist self-regulating heating cables:









MAXIMUM CONTINUOUS EXPOSURE FEMPERATURE (Power ON): +65°C (+149°F)
MAXIMUM PERMISSIBLE EXPOSURE FEMPERATURE (Power OFF): +85°C (+185°F)
*MINIMUM OPERATING TEMPERATURE: -65°C (-85°F)
MINIMUM INSTALLATION FEMPERATURE: -40°C (-40°F)
POWER SUPPLY: 12 - 277V AC
TEMPERATURE CLASSIFICATION: T6 (+85°C)
POWER OUTPUTS: 11W/m & 17W/m

+85°C (+185°F) -65°C (-85°F) MINIMUM INSTALLATION -40°C (-40°F) 12 - 277V AC T6 (+85°C) - T4 (+135°C)

MAXIMUM PERMISSIBLE EXPOSURE 85°C (+185°F) -40°C (-40°F) 12 - 24V AC or DC

+100°C (+212°F)

+100°C (+212°F) -65°C (-85°F) -40°C (-40°F) 12 - 277V AC



Electrical heating cable for frost protection or

for frost protection or



100°C

MAXIMUM PERMISSIBLE EXPOSURE +225°C (+437°F) -65°C (-85°F) MINIMUM INSTALLATION -40°C (-40°F) POWER SUPPLY: 12 - 277V AC T3 (+200°C)



-65°C (-85°F) -40°C (-40°F)



FAILSAFE +

-65°C (-85°F) 12 - 277V AC

T3 (+200°C)



Extremely high temperature

200°C

-40°C (-40°F)

+190°C (+374°F)

+200°C (+392°F)

-40°C (-40°F)

+285°C (+545°F)

°-40°C (-40°F)

12 - 277V AC

°T1 (+350°C)

T2 (+300°C)

T3 (+200°C)

T4 (+135°C)

up to 50W/m by design

according to application requirements

EMPERATURE (Power ON): +190°C (+374°F)

or process heating

200°C

Electrical heating cable

for freeze protection

or process heating

Electrical heating cable for freeze protection of pipework and vessels TEMPERATURE (Power OFF):

-40°C (-40°F) up to 600V 3 phase

MAXIMUM PERMISSIBLE EXPOSURE

MAXIMUM PERMISSIBLE EXPOSURE TEMPERATURE (Power OFF): +

INIMUM INSTALLATION

TEMPERATURE:

TEMPERATURE:

RATED VOLTAGE.

according to application requirements up to 23W/m by design

+205°C (+401°F)

+230°C (+446°F)

up to 1000V 3-phase

+230°C (+446°F)

-40°C (-40°F)

-60°C (-76°F)

up to 10kV 3-phase

up to 50W/m by design

600V single phase according to application requirements



125°C

LONGLINE

HEATING CABLI

(+5°F to +59°F) INIMUM INSTALLATION -40°C (-40°F) POWER SUPPLY 12 - 277V AC

ERATING ENVIRONMENTAL -60°C to +15°C

MINIMUM INSTALLATION



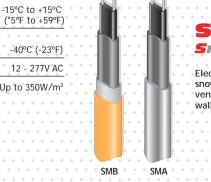


SPECIALIST APPLICATION HEATING CABLE



Electrical heating cable for

snow melting and ice prevention of roads, ramps and



Electrical heating cable for freeze protection of rails, switch points, tramways and

















	Type A	Type B	Type C
Temp. range (°C)	0-40	20-110	20-300
Setting accuracy	±6	• ±6 • •	±14
Switch differential (°C)			
Max. sensor temp (°C)			
• Min: sensor temp (°C) • • •	-20	-20	• -15 • • •
Capillary tube length (m)	1.5	1.5	1.5
0-10-10-11-11-11-11-11-11-11-11-11-11-11	laia balai		

	Stainless Steel Conduit (CT-FL Compulsory Stainless Steel Conduit (CT optional)
	143.5 140 89.5
Sensor type Sensor Material	Liquid filled Stainless Steel

16A (Max) Single Pole, Double Throw

Changeover, 230V/400V resistive Ta = -30° C to $+60^{\circ}$ C = T4 Ta = -30° C to $+50^{\circ}$ C = T6 CLASSES (CT-FL only) DIMENSIONS (CT-FL): 130mm x 130mm x 93mm

JB9000 range

CAPILLARY

THERMOSTAT:

CT & CT-FL

Temperature control of heat trace

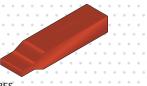
circuits in hazardous or safe areas



Temperature control of heat trace circuits in safe or hazardous areas

SYSTEM





Silicone end seal boot for

TEMPERATURE:

MINIMUM OPERATING



Nickle plated brass gland with slotted seal for heating cable.



LLRS & HLRS

System for termination or connection of Heat Trace's LongLin



ELECTRONIC CONTROL & MONITORING SYSTEMS

A wide range of electronic controls and monitoring systems are available together with control panels for both Safe and Hazardous areas





Electrical heating cable for process temperature maintenance

T5 (+100°C) T6 (+85°C)

TEMPERATURE (Power ON/OFF): +350°C (+644°F)

EMPERATURE (Power ON):

TEMPERATURE (Power OFF):

MINIMUM INSTALLATION

UN-ENERGISED:

TEMPERATURE:

POWER SUPPLY:

MINIMUM INSTALLATION

MAXIMUM PERMISSIBLE EXPOSURE

INTERMITTENT EXPOSURE TEMPERATURE: +425°C (+797°F) MINIMUM INSTALLATION

TEMPERATURE: -40°C (-40°F) POWER SUPPLY: 12 - 277V AC

T1 (+350°C)

285°C

of pipework and vessels in safe

process temperature maintenance

425°C

up to 60W/m by design according to application requirements

TEMPERATURE (Power ON or OFF):+200°C(+392°F)

-40°C (-40°F) -65°C (-85°F) RATED VOLTAGE: up to 5000V AC 50 or 60 Hz

> up to 160W/m by design according to application requirements

Skin-Trace systems available for up to 24km

230°C LLR & LLR-HV

230°C

HTS1F

HTS3FM &

Electrical heating cable for the heating of moderately lon

the heating of moderately lon

200°C



Skin Trace

Electrical heating cable for





*POWER SUPPLY:

*POWER OUTPUT:



-40°C (-23°F)

12 - 277V AC

Up to 350W/m²

(-76°F to +59°F)

Down to -65°C (-85°F)

Up to 1000 V (AC or DC)























INAL BLOCKS Various terminal options available

of accessories specially designed and approved for the use with our heating cables to provide total solutions for

Standard entries are 3 x 20mm and 1 x 25mm.



