

Very high temperature self-regulating heating cable.

## **FailSafe Super**

Inherently Temperature-Safe Heating Cable

- Automatically adjusts heat output in response to increasing or decreasing pipe temperature.
- Can be cut-to-length.
- Inherently temperature safe.
- Suitable for use in safe, hazardous and corrosive areas.
- High power outputs to 75W/m at 10°C.
- Full range of controls and accessories available.

### **DESCRIPTION**

FAILSAFE SUPER is a very high temperature self-regulating heating cable, having an exposure limit of 225°C, energised or not.

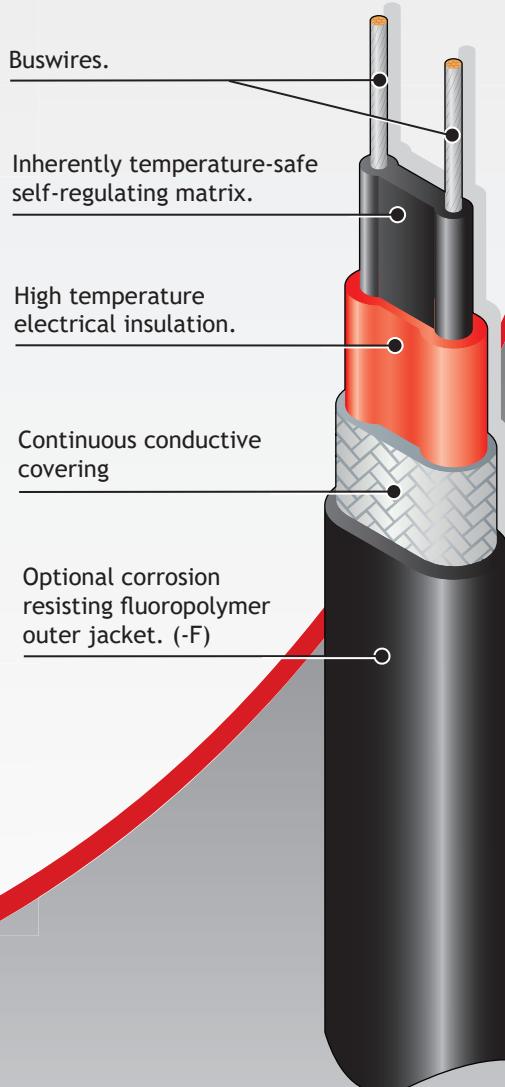
FAILSAFE SUPER is provided with a metal braid for flexibility and a thermoplastic or fluoropolymer outer jacket.

Easy terminations, cut-to-length.

Safest ever self-regulating product range for very high temperature exposure; will not overheat even when exposed to 225°C when energised or switched off as it is *inherently temperature-safe*.

FAILSAFE SUPER is approved for use in non-hazardous, hazardous and corrosive environments to worldwide standards.

ATEX, IECEx & UKEX Approved.



### **INHERENTLY TEMPERATURE-SAFE**

“ The inherent ability to self-regulate at a temperature level below the maximum product rating and withstand temperature of the insulating materials, without the need for temperature control.”

Similar competitor self-regulating products are typically limited to a maximum energised temperature, typically 120°C at which point, their retained power output prevent the cable from self-regulating at its own limiting temperatures. All such products require temperature control to ensure their own temperature safety.



## SPECIFICATION

### MAXIMUM CONTINUOUS EXPOSURE

**TEMPERATURE:** 225°C<sup>T</sup> (437°F)  
(ENERGISED OR SWITCHED OFF)

### MINIMUM OPERATING

**TEMPERATURE:** -40°C (-40°F)

### MINIMUM INSTALLATION

**TEMPERATURE:** -40°C (-40°F)

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

### TEMPERATURE CLASSIFICATION:

15FSS, 30FSS, 45FSS & 60FSS @ nom 230V - T3 (200°C)  
75FSS @ nom 230V - T2 (300°C)

### INGRESS PROTECTION

IP67

### WEIGHTS & DIMENSIONS:

Type	Dimensions	Weight	Min Bending	Gland
Ref	(mm)	kg/100m	radius	size
FSS-C	10.55 x 4.35	10.4	30mm	M20
FSS-CF	12.35 x 6.15	13.4	35mm	M20

### APPROVAL DETAILS:

ATEX<sup>T</sup> - CML 19ATEX3377

IECEx<sup>T</sup> - CML 19.0120

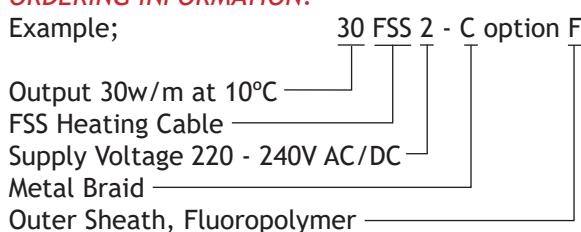
UKEX - CML 21UKEX31135

DNV - TAE00002KB

CCC - 2022312312000166

### ORDERING INFORMATION:

Example;



### 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. Use only approved components, as per system certification.

### FURTHER INFORMATION:

Please consult the appropriate termination instructions and the Heat Trace Installation, Maintenance and Testing Manual (HTDMM 010) for further details.

### MAXIMUM LENGTH (m) vs. CIRCUIT BREAKER SIZE:

The following circuit details relate specifically for the trace heating of pipework and equipment. For any other application consult Heat Trace.

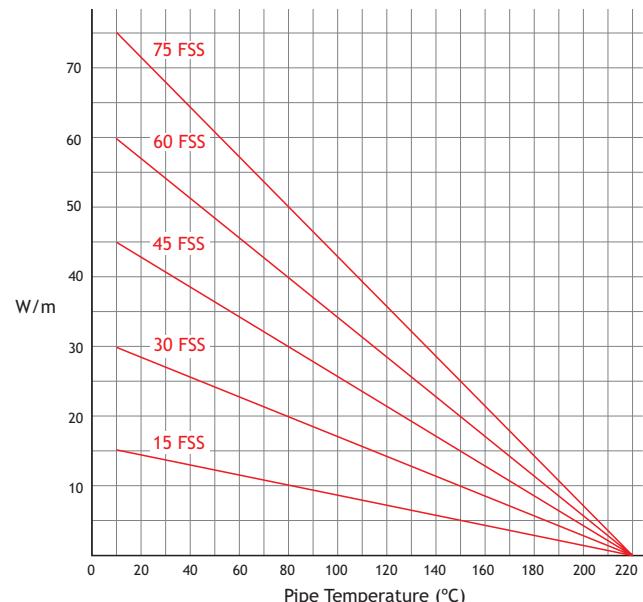
Cat Reference	Environmental Start-up Temp.	230V				
		10A	16A	20A	32A	50A
15FSS	10°C	76	122	154	172	172
	0°C	70	112	140	172	172
	-20°C	62	98	122	172	172
	-40°C	52	82	102	164	172
30FSS	10°C	52	82	102	122	122
	0°C	46	74	92	122	122
	-20°C	40	66	82	122	122
	-40°C	34	54	68	110	122
45FSS	10°C	38	62	76	100	100
	0°C	34	56	70	100	100
	-20°C	30	50	62	98	100
	-40°C	22	34	44	70	100
60FSS	10°C	30	50	62	86	86
	0°C	28	44	56	86	86
	-20°C	20	32	40	62	86
	-40°C	12	18	24	38	60
75FSS	10°C	24	40	50	76	76
	0°C	18	30	38	60	76
	-20°C	14	22	26	42	66
	-40°C	8	12	16	26	40

For use with Type C circuit breakers to IEC 60898.

These circuit lengths may be exceeded dependant on specific design parameters.

### THERMAL RATINGS:

Nominal output at 230V when FSS is installed on thermally insulated carbon steel pipes. For 75W/m and above, the use of aluminium overfoiling is strongly recommended to optimise the thermal transmission to the pipe and achieve the stated thermal ratings.



Heat Trace Ltd, Mere's Edge, Chester Road, Helsby, Frodsham, Cheshire, WA6 0DJ, England.

Tel: +44 (0)1928 726451

[www.heat-trace.com](http://www.heat-trace.com)

Email: [info@heat-trace.com](mailto:info@heat-trace.com)

The information given herein, including drawings, illustrations and schematics are intended for illustration purposes only. Heat Trace Ltd makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. Users of Heat Trace Ltd products should make their own evaluation to determine the suitability of each such product for specific applications. In no way will Heat Trace Ltd be liable for any damages arising out of the misuse, resale or use of the product.