

Extremely high temperature self-regulating heating cable.

FailSafe Ultimo

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 100W/m at 10°C.
- Full range of controls and accessories available.

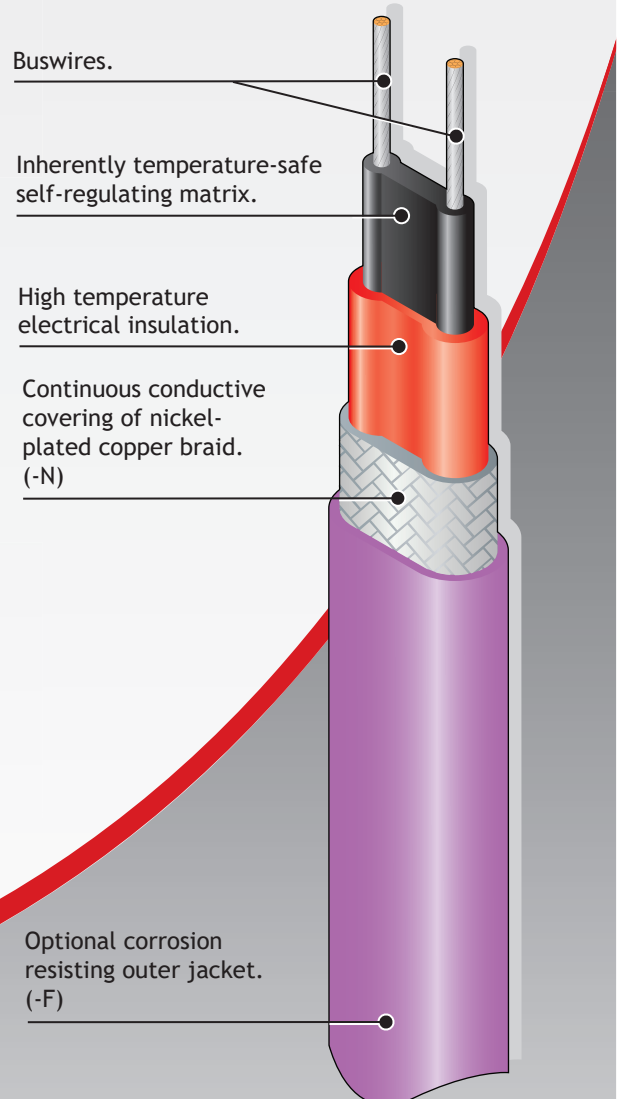
DESCRIPTION

FSU is an extremely high temperature self-regulating heating cable, having an exposure limit of 250°C, energised or not.

Easy terminations, cut-to-length.

Safest ever self-regulating product range for extremely high temperature exposure; will not overheat even when exposed to 250°C when energised or switched off as it is inherently temperature-safe.

ATEX and IECEx 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 EXPOSURE TEMPERATURE: 250°C (482°F)
(ENERGISED OR SWITCHED OFF)

MINIMUM OPERATING TEMPERATURE: -65°C* (-85°F)

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

POWER SUPPLY: 12 - 277V AC

TEMPERATURE CLASSIFICATION: #
15FSU, 30FSU, 45FSU & 60FSU @ nom 230V - T3 (200°C)
75FSU & 100FSUw @ nom 230V - T2 (300°C)

WEIGHTS & DIMENSIONS:

Type Ref	Dimensions (mm) +/-0.5	Weight kg/100m	Min Bending radius	Gland Size
FSU-N	11.2 x 4.5	11.3	30mm	M20
FSU-NF	12.1 x 5.4	14.6	35mm	M20
FSUw-N	13.5 x 4.7	15.8	30mm	M25
FSUw-NF	14.4 x 5.6	19.5	35mm	M25

APPROVAL DETAILS:

ATEX - CML 19ATEX3385, CML 19ATEX3386
IECEX - CML 19.0128, CML 19.0129
DNV-GL - TAE00002KC
CSA - 1295278, 1547590
EAC* - TC RU C-GB.MIO62.B.06041
Japanese - CML 17JPN3006X - 1 to 4

ORDERING INFORMATION:

Example: **75 FSU 2 - N F**
Output 75W/m at 10°C
FSU Heating Cable
Supply Voltage 220 - 277V AC
Metal Braid
Outer Sheath, Fluoropolymer

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 Design, Installation and Maintenance Manual (HTDIMM 010) for further details.

INGRESS PROTECTION: IP67

ATEX & IECEX MARKINGS:

Ex II 2 GD
Ex 60079-30-1 IIC T3 or T2# Gb
Ex 60079-30-1 IIIC T200°C or T300°C Db

EN 60079-0: 2018

EN 60079-30-1: 2017

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.

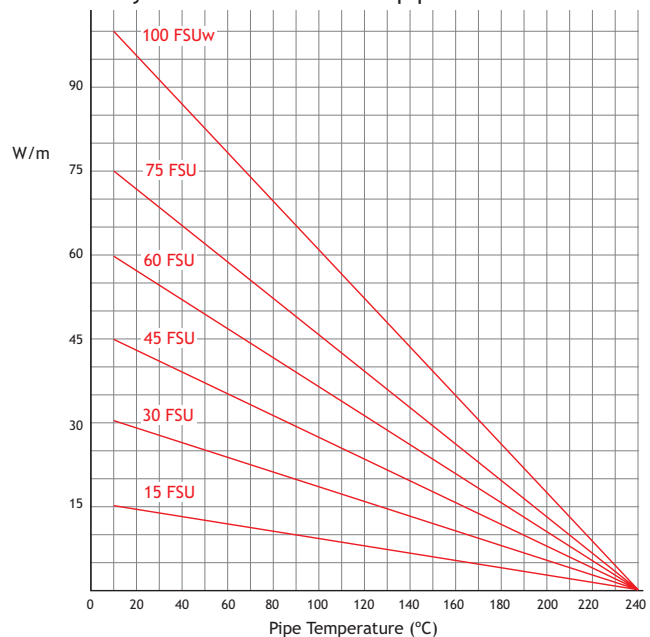
Cat Reference	Environmental Start-up Temp.	230V				
		10A	16A	20A	32A	50A
15FSU	10°C	76	122	154	172	172
	0°C	70	112	140	172	172
	-20°C	62	98	122	172	172
	-40°C	52	82	102	164	172
30FSU	10°C	52	82	102	122	122
	0°C	46	74	92	122	122
	-20°C	40	66	82	122	122
	-40°C	34	54	68	110	122
45FSU	10°C	38	62	76	100	100
	0°C	34	56	70	100	100
	-20°C	30	50	62	98	100
	-40°C	22	34	44	70	100
60FSU	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
75FSU	10°C	22	34	44	70	76
	0°C	16	26	34	54	76
	-20°C	12	18	24	38	60
	-40°C	8	12	14	22	36
100FSUw	10°C	18	30	36	58	84
	0°C	18	28	34	56	84
	-20°C	16	24	30	50	76
	-40°C	14	22	28	46	70

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 FSU is installed on thermally insulated carbon steel pipes.



HEAT TRACE™

SETTING THE STANDARDS LEADING THE WAY

HANEL ul. Lagodna 11, Mala Nieszawka, 87-103 Torun 5

tel./fax +48 56 678 71 27, mobile: +48 601 92 55 96, www.kablegrzejne.eu

HANEL

The information given herein, including drawings, illustrations and schematics (which are intended for illustration purposes only), is believed to be reliable. However, 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.