

# FSU/FSUW

Extremely high temperature self-regulating heating cable.

# FailSafe Ultimo

Inherently Temperature-Safe Heating Cable

- 250°C exposure temperature withstand, (energised or switched off).
- High power outputs to 100W/m at 10°C
- Inherently temperature-safe. (ITS)
- External temperature controls not necessary.

# **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.

# Buswires. Inherently temperature-safe self-regulating matrix. Fluoropolymer electrical insulation. Metal braid. (-N) Optional corrosion resisting outer jacket. (-F)

# 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 selfregulating 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 @ nom 230V - T2 (300°C)

Note: for any other voltages contact Heat Trace Ltd

#### **WEIGHTS & DIMENSIONS:**

Туре	Dimensions.	Weight	Min Bending	Gland
Ref	(mm) + /-0.5	kg/100m	radius	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 - Sira 04ATEX3012, Sira 13ATEX3126

IECEx - SIR 11.0131, SIR 11.0132

DNV-GL - TAE00002KC

CSA - 1295278, 1547590 EAC\* - TC RU C-GB.AA87.B.00610 Japanese - CML 17JPN3006X - 1 to 4

#### **ORDERING INFORMATION:**

Example:	<u>75 FSU 2 - N F</u>
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:

## ATEX & IECEX MARKINGS:

€x II 2 GD

Ex e IIC T3 or T2# Gb

Ex tb IIIC T200°C or T300°C Db

EN 60079-0: 2012+A11:2013

EN 60079-31: 2014 EN 60079-30-1: 2007

### 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.

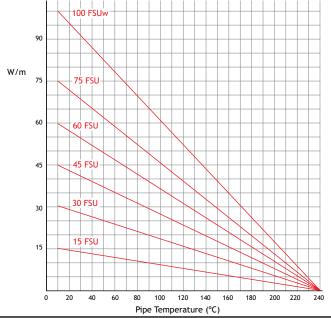
Cat	Environmental			230V		
Reference	Start-up Temp.	10A	16A	20A	32A	50A
15FSU	10°C	76	122	154	172	172
	0°C	70	112	140	172	172
	-20°C	62	98	122	172	172
	-40°C	52	82	102	164	172
30FSU	10°C	52	82	102	122	122
	0°C	46	74	92	122	122
	-20°C	40	66	82	122	122
	-40°C	34	54	68	110	122
45FSU	10°C	38	62	76	100	100
	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.





**IP67**