FS+

225°C

A high temperature
self-regulating heating cable.

FailSafe +

Inherently Temperature-Safe Heating Cable

- 225°C exposure temperature withstand, (energised or switched off).
- *Inherently temperature-safe. (ITS)*
- Power outputs to 60W/m at 10°C
- External temperature controls not necessary.

DESCRIPTION

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

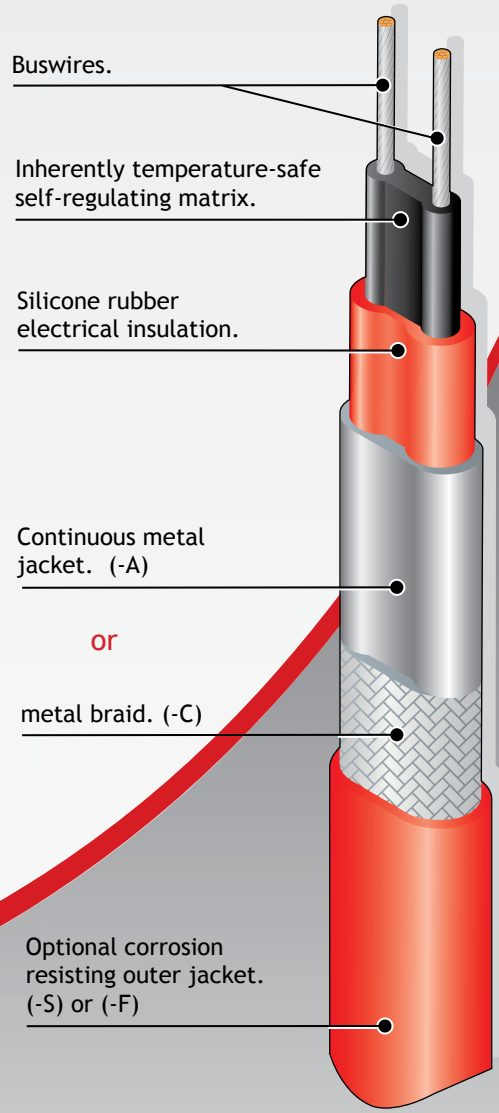
It may be provided with a continuous extruded metal jacket for applications where high mechanical strength is required or a metal braid where flexibility is preferred.

The continuous metal outer jacket is ductile, yet withstands high mechanical loads, thus averting damage when being installed in arduous environments.

Easy terminations, cut-to-length.

Safest ever self-regulating product range for high temperature exposure; will not overheat even when exposed to 225°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.

HEAT TRACE™
SETTING THE STANDARDS LEADING THE WAY

40 Years
1974 - 2014

The Heat Tracing Authority™

SRDS0108 (250120192)

SPECIFICATION

MAXIMUM CONTINUOUS EXPOSURE TEMPERATURE: (ENERGISED OR SWITCHED OFF) 225°C (437°F)

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

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

POWER SUPPLY: 12 - 277V AC

TEMPERATURE CLASSIFICATION: T3 (200°C)

WEIGHTS & DIMENSIONS:

Type Ref	Dimensions (mm) +/-0.5	Weight kg/100m	Min Bending radius	Gland Size
FS+A	12.45 x 6.25	11.9	50mm	M20
FS+AS	14.45 x 8.25	15.1	50mm	M20
FS+AF	13.35 x 7.15	15.0	50mm	M20
FS+C	11.65 x 5.45	9.9	35mm	M20
FS+CS	13.65 x 7.45	12.9	45mm	M20
FS+CF	12.55 x 6.35	12.8	40mm	M20

APPROVAL DETAILS:

ATEX - CML 17ATEX3154
IECEx - CML 18.0082
DNV-GL - E12834
EAC* - TC RU C-GB.МЮ62.B.06041
Japanese - CML 17JPN3007X - 1 to 2

ORDERING INFORMATION:

Example; 45 FS+ 2 - A or C S or F

- 45 — Output 45W/m at 10°C
- FS+ — Heating Cable
- 2 — Supply Voltage 220 - 277V AC
- A or C — Continuous Metal Jacket / Metal Braid
- S or F — Outer Sheath, Silicone Rubber / 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.

INGRESS PROTECTION: IP66 / IP67

ATEX & IECEx MARKINGS:

Ⓔx II 2 GD
Ex e IIC T3 Gb
Ex tb IIIC T200°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.

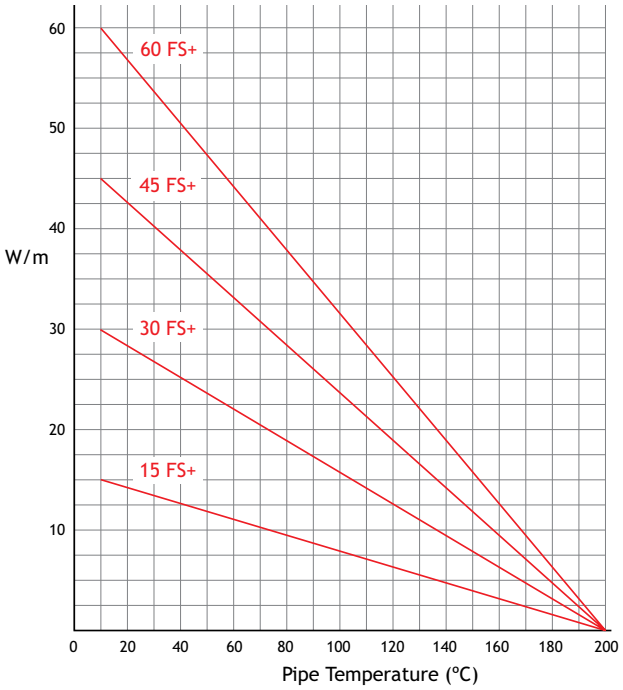
Cat Reference	Environmental Start-up Temp.	230V 10A	16A	20A	32A	50A
15FS+	10°C	76	122	154	172	172
	0°C	70	112	140	172	172
	-20°C	62	98	122	172	172
	-40°C	52	82	102	164	172
30FS+	10°C	52	82	102	122	122
	0°C	46	74	92	122	122
	-20°C	40	66	82	122	122
	-40°C	34	54	68	110	122
45FS+	10°C	38	62	76	100	100
	0°C	34	56	70	100	100
	-20°C	30	50	62	98	100
	-40°C	22	34	44	70	100
60FS+	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

For use with Type C circuit breakers to IEC60898

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

THERMAL RATINGS:

Nominal output at 230V when FS+ is installed on thermally insulated carbon steel pipes.



FURTHER INFORMATION:

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

HEAT TRACE™ SETTING THE STANDARDS LEADING THE WAY

Heat Trace Ltd, Mere's Edge, Chester Road, Helsby, Frodsham, Cheshire, WA6 0DJ, England.
Tel: +44 (0)1928 726451 Fax: +44 (0)1928 727846
www.heat-trace.com email: info@heat-trace.com

SRDS0108 (250120192)