

## Selfregulating heating tape Type FS+ up to 225°C\*

Optional  
corrosion resisting  
outer jacket.  
(-S) or (-F)

Metal braid  
(-C)

Or continuous  
metal jacket  
(-A)

Silicone rubber  
electrical insulation

Inherently tem-  
perature safe self-  
regulating matrix

Bus wires



A high temperature self-regulating 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/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.

Maximum continuous exposure temp.

(Energised or switched off)..... 225°C (437°F)\*

Minimum installation temp. .... -40°C (-40°F)

Minimum ambient temp. .... -60°C (-76°F)

Power supply.....208-277VAC  
(other voltages available on request)

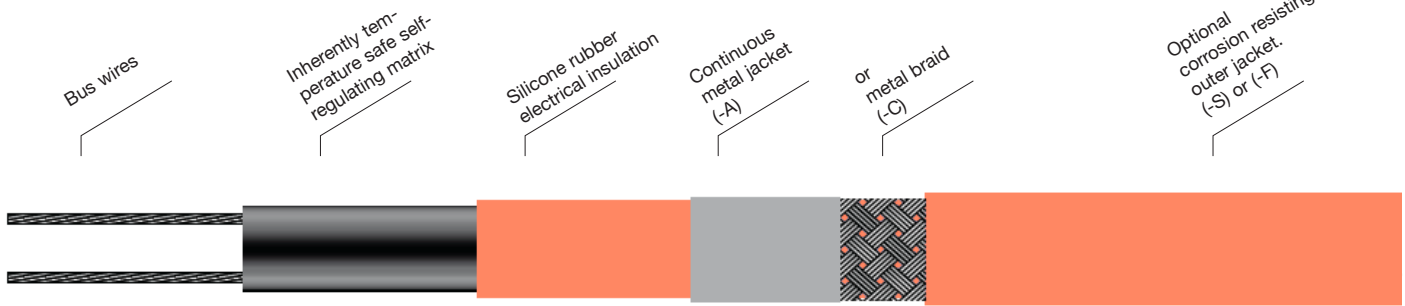
### Weight & dimensions

Type Ref	Nom. Dims. (mm)	Weight kg/100m	Min. bending radius	Gland size
FS+A	11.05x5.65	14.3	20mm	M20
FS+AS	12.05x6.65	14.7	25mm	M20
FS+AF	11.85x6.45	14.6	30mm	M20
FS+C	10.25x4.85	12.2	20mm	M20
FS+CS	11.25x5.85	12.5	25mm	M20
FS+CF	11.05x5.65	12.5	30mm	M20

### Approval details

ATEX	Sira 12ATEX3136	EN60079-0:2009 EN60079-7:2007 EN60079-30:2007 IEC d60079-31:2008
IECEX	SIR 12.0054	IEC 60079-0:2011 IEC 60079-30:2007-01 IEC 60079-31:2008

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### Maximum Length (m) vs. Circuit breaker size

The following circuit details relate specifically to the trace heating of pipework and equipment. For any other application consult SAN.

Cat Ref	Start-up Temp.	230V	
		20A	32A
15FS+	10°C	154	-
30FS+	10°C	102	108
45FS+	10°C	76	88
60FS+	10°C	62	76

For use with Type C circuit breakers to IEC60898

### Thermal ratings

Nominal output @ 230V when FS+ is installed on thermal insulated carbon steel pipes, being fixed with aluminium fixing tape.

