FSR 85°C

Electrical heating cable for freeze protection or temperature maintenance.

FREEZSTOP REGULAR

Self-Regulating 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.
- Available up to 277V AC/DC.
- Full range of controls and accessories available.

DESCRIPTION

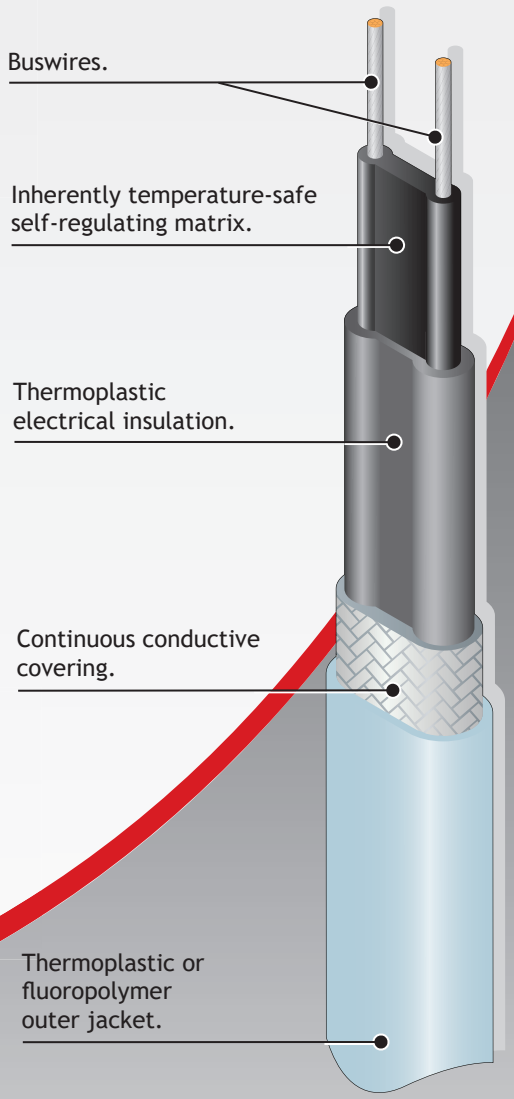
FREEZSTOP REGULAR is an industrial grade, self-regulating heating cable that can be used for freeze protection or temperature maintenance to 85°C.

It can be cut-to-length on site and exact piping lengths can be matched without any complicated design considerations.

FREEZSTOP REGULAR is approved for use in non-hazardous, hazardous and corrosive environments to world wide standards.

Its self-regulating characteristics improve safety and reliability. FREEZSTOP REGULAR will not overheat or burnout, even when overlapped upon itself. Its power output is self-regulated in response to the pipe temperature.

The installation of FREEZSTOP REGULAR is quick and simple and requires no special skills or tools. Termination, splicing and power connection components are all provided in convenient kits.



FSR-CF is supplied with a black fluoropolymer outer-jacket.

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."

Other manufacturers self-regulating products are typically limited to a maximum energised temperature, typically 65°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

The **Heat Tracing Authority™**

SRDS0102 (18112026) Issue 12

SPECIFICATION

MAXIMUM CONTINUOUS EXPOSURE TEMPERATURE (Power ON): 85°C† (185°F)

MAXIMUM PERMISSABLE EXPOSURE TEMPERATURE (Power OFF): 85°C† (185°F)

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

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

POWER SUPPLY: 12 - 277V AC/DC

TEMPERATURE CLASSIFICATION:

up to 40W/m @ nom voltage - T6 (85°C)
up to 31W/m @ nom 230V powered to 277V - T6 (85°C)
>40W/m @ nom voltage - T4 (135°C)
>31W/m @ nom 230V powered up to 277V - T4 (135°C)

INGRESS PROTECTION IP67

WEIGHTS & DIMENSIONS:

Type Ref	Dimensions (mm) +/-0.5	Weight kg/100m	Min Bend radius	Gland Size
FSR..C	11.75 x 4.75	9.5	30mm	M20
FSR..CT	12.95 x 5.95	12.9	35mm	M20
FSR..CF	12.95 x 5.95	14.8	35mm	M20

APPROVAL DETAILS:

ATEX† - CML 19ATEX3378
IECEx† - CML 19.0121
DNV† - TAE0000272
CNEX - CNEx19.1555U
UKEX - CML 21UKEX31139
CCC - 2020312312000119

ORDERING INFORMATION:

Example: **17 FSR 2 - C T**

- 17 — Output 17W/m at 10°C
- FSR — Freezstop Regular
- 2 — Supply Voltage 220 - 277V AC/DC
- C — Metal Braid
- T — Thermoplastic Outerjacket

ATEX, IECEx & UKEX MARKINGS:

Ⓔx II 2GD
Ex 60079-30-1 IIC T6 Gb
Ex 60079-30-1 IIC T85°C Db
Ex 60079-30-1 IIC T4 Gb
Ex 60079-30-1 IIIC T135°C Db

EN 60079-0:2018
EN 60079-30-1:2017

MAXIMUM LENGTH (m) vs. CIRCUIT BREAKER SIZE:

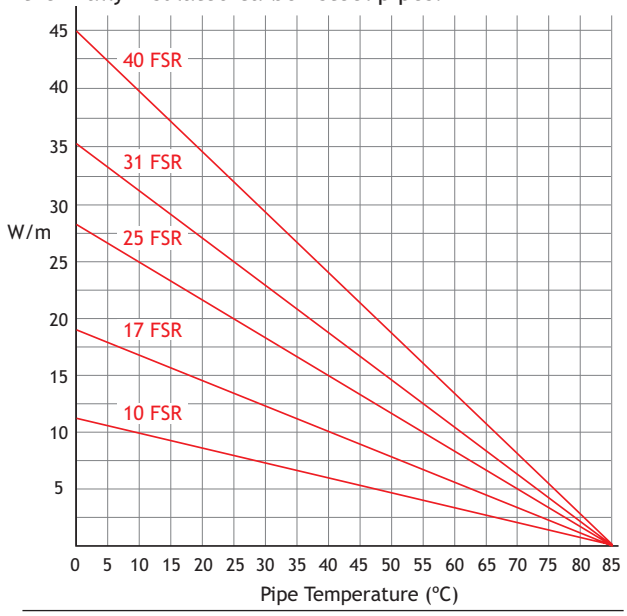
The following circuit details relate specifically to the trace heating of pipework and equipment. For any other application consult Heat Trace.

Cat Reference	Start-up Temperature	230V 10A	16A	20A	32A
10FSR	10°C	136	198	198	198
	0°C	122	188	188	188
	-20°C	108	174	176	176
	-40°C	96	154	166	166
17FSR	10°C	92	148	152	152
	0°C	84	134	144	144
	-20°C	74	118	136	136
	-40°C	66	106	128	128
25FSR	10°C	74	118	124	124
	0°C	68	108	120	120
	-20°C	60	94	112	112
	-40°C	52	84	106	106
31FSR	10°C	58	92	112	112
	0°C	52	84	104	106
	-20°C	46	74	92	100
	-40°C	42	66	82	94
40FSR	10°C	46	74	92	98
	0°C	42	66	84	94
	-20°C	36	58	74	88
	-40°C	32	52	66	84

Residential buildings	Commercial buildings	Industry and Infrastructure
MCB's certified IEC 60898-1	MCB's certified according both IEC 60898-1 & IEC 60947-2	

THERMAL RATINGS:

Nominal output at 115V or 230V when FSR is installed on thermally insulated carbon steel pipes.



FURTHER INFORMATION:

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

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

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