

Electrical heating cable for frost protection or temperature maintenance.

FREEZSTOP MICRO Self-Regulating Heating Cable

- Automatically adjusts heat output in response to increasing or decreasing pipe temperature.
- Can be cut-to-length with no wastage.
- Will not overheat or burnout, even when overlapped.
- Full range of controls and accessories.
- Approved for use in non-hazardous, hazardous and corrosive environments.
- Ideal for fitting to instrument lines and small diameter pipes.

DESCRIPTION

FREEZSTOP MICRO is an industrial grade self-regulating heating cable that can be used for freeze protection or temperature maintenance of pipework and vessels.

It is particularly suited to small diameter pipes and instrument tubing such as impulse or analyser lines.

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

FREEZSTOP MICRO is approved for use in non-hazardous and hazardous areas to world wide standards.

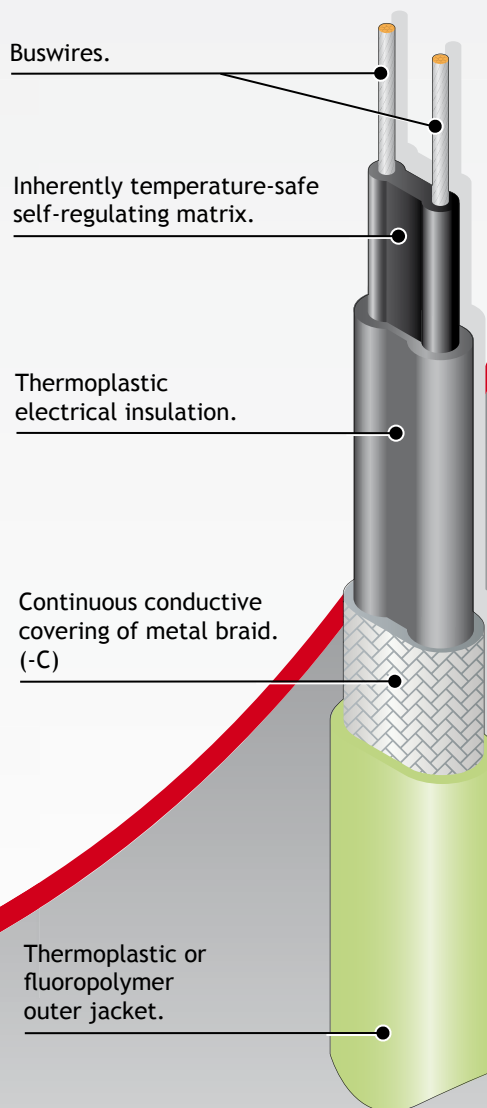
Its self-regulating characteristics improve safety and reliability. **FREEZSTOP MICRO** will not overheat or burnout, even when overlapped upon itself. Its power output is self-regulated in response to the pipe temperature.

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

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 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.



SPECIFICATION

MAXIMUM CONTINUOUS EXPOSURE TEMPERATURE (Power ON): 65°C (149°F)

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

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

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

POWER SUPPLY: 1 - 277V AC

TEMPERATURE CLASSIFICATION: T6 (85°C)

MAXIMUM RESISTANCE OF PROTECTIVE BRAIDING: 18.2 Ohm/km

WEIGHTS & DIMENSIONS:

Type Ref	Dimensions (mm) +/-0.5	Weight kg/100m	Min Bending radius	Gland Size
FSM	8.3 x 3.7	3.8	25mm	M20
FSM-C	9.3 x 4.7	7.3	30mm	M20
FSM-CT	10.5 x 5.9	9.3	35mm	M20
FSM-CF	10.5 x 5.9	10.0	35mm	M20

APPROVAL DETAILS:

ATEX	- Sira 02ATEX3075
IECEX	- SIR 11.0128
FM	- 3009080
CSA	- 1295278, 1547590
EAC*	- TC RU C-GB.Г505.В.00186

ORDERING INFORMATION:

Options

FSM-C	Continuous conductive covering of metal braid.
FSM-CT	Thermoplastic outer jacket over a metal braid provides additional protection.
FSM-CF	Fluoropolymer outer jacket over a metal braid provides protection where corrosive chemical solutions or vapours may be present.

Example:

Output 17W/m at 5°C	17 FSM 2 - C T
FREEZSTOP MICRO	
Supply Voltage 220 - 277V AC	
Metal Braid	
Thermoplastic Outerjacket	

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.

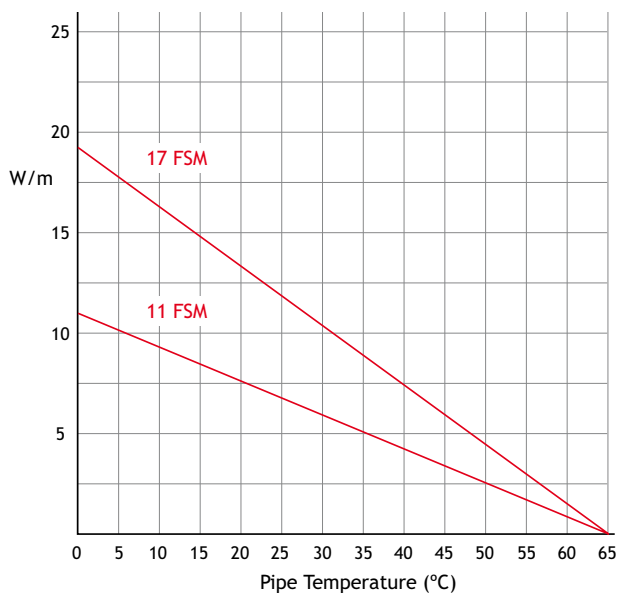
Cat Reference	Start-up Temperature	230V			
		6A	10A	16A	20A
11FSM	5°C	76	126	128	-
	0°C	70	118	128	-
	-20°C	46	78	124	128
	-40°C	36	60	96	120
17FSM	5°C	54	88	102	-
	0°C	50	84	102	-
	-20°C	34	56	88	102
	-40°C	26	42	68	86

For use with Type C circuit breakers to IEC 60898

THERMAL RATINGS:

Nominal output at 230V when FSM is installed on insulated metallic pipes and as outlined in the procedures within IEC62395 and IEC60079-30.

Note: Please refer to Evolution for more precise power output values as a function of pipe temperature.



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

