

# Self-Regulating Heating Tape Freezstop Micro 65°C - FSM



## Electrical heating tape for frost protection or temperature maintenance of instrument lines and pipework in safe or hazardous locations

- 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
- Available for 110-120VAC and 220-277VAC

### FEATURES

FREEZSTOP MICRO is an industrial grade self-regulating heating tape 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.

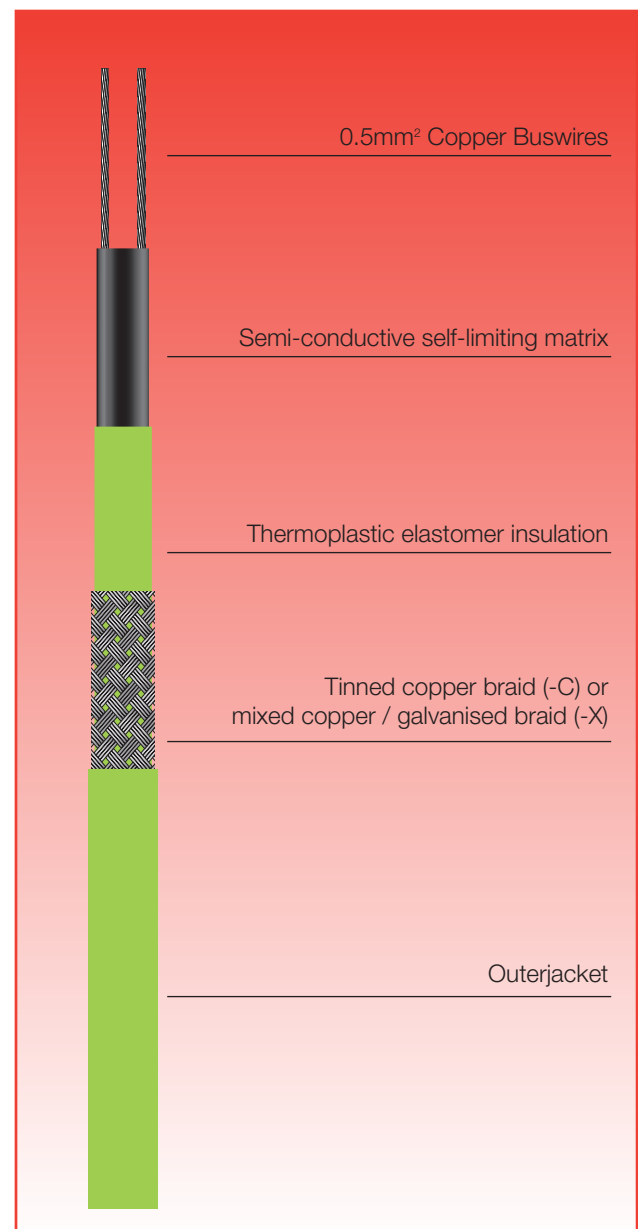
FREEZSTOP MICRO is approved for use in non-hazardous, and hazardous areas to world wide standards.

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.

### OPTIONS

- FSM..\*T Thermoplastic outerjacket over a tinned copper, or a mixed braid provides additional protection.
- FSM..\*F Fluoropolymer outerjacket over a tinned copper, or a mixed braid provides protection where corrosive chemical solutions or vapours may be present.



# SPECIFICATION

**MAXIMUM TEMPERATURE** 65°C (149°F)

**MAXIMUM PERMISSIBLE TEMPERATURE (de-energised)** 85°C (185°F)

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

**TEMPERATURE** (CENELEC -20°C, -4°F)

**POWER SUPPLY** 110 – 120VAC, 220 – 277VAC

**TEMPERATURE CLASSIFICATION** T6 (85°C)








**MAXIMUM RESISTANCE OF PROTECTIVE BRAIDING** 18.2 Ohm/km

## WEIGHTS AND DIMENSIONS

Type Ref	Nominal Dimensions (mm)	Weight kg/100m	Min. Bending radius	Gland Size
FSM .. *T	10.5 x 5.9	10.2	20mm	M20
FSM .. *F	10.5 x 5.9	9.9	25mm	M20

\* Denotes tinned copper braid (C), or mixed braid (X)

## APPROVAL DETAILS

Testing Authority	Certificate No.	Standard
CENELEC 	SCS Ex 99E3147	EN60079-0/EN60079-7
ATEX 	Sira 02ATEX3075	EN60079-0/EN60079-7 & IEC62086
IEC	Sira 02Y3065	CEI IEC62086 & IEC60079-7
FM 	3009080	ANSI/IEEE Std 515
SEMKO 	9837071/01-02	SS 424 24 11
CSA 	214197-1295278	C22.2 No. 130.1 C22.2 No. 130.2 C22.2 No. 138
Lloyds Register 	02/00062	EN60079-0/EN60079-7 IEEE Std 515
GOST R 	POCC GB.ГБ05.В02364	GOST R 51330.0-99 (MЭК 60079-0-98) GOST R 51330.8-99

Further approvals are available on request.

## ORDERING INFORMATION

Example

Output 17W/m at 5°C \_\_\_\_\_

FREEZSTOP MICRO \_\_\_\_\_

Supply Voltage 220 – 277VAC \_\_\_\_\_

Braid \_\_\_\_\_

Thermoplastic Outerjacket \_\_\_\_\_

17FSM2-CT

## MAXIMUM LENGTH (m) vs. CIRCUIT BREAKER SIZE

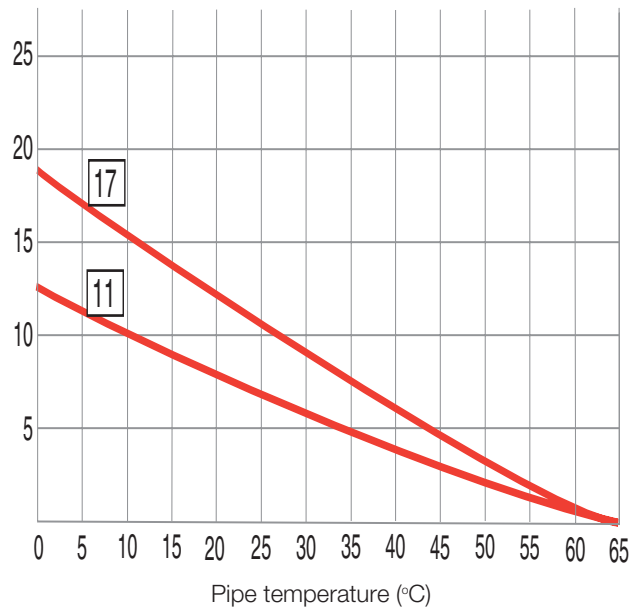
Cat Ref	Start-up Temperature	230V			
		6A	10A	16A	20A
11FSM	5°C	76	126	128	-
	0°C	70	118	128	-
	-20°C	46	78	124	128
	-40°C	36	60	96	120
17FSM	5°C	54	88	102	-
	0°C	50	84	102	-
	-20°C	34	56	88	102
	-40°C	26	42	68	86

Using circuit breaker Type C to BS EN 60 898

## THERMAL RATINGS

Nominal power output at 230V when FSM is installed on insulated metal pipes.

W/m



## ACCESSORIES

Backer supply a complete range of accessories including termination/splice kits, end seals, junction boxes and controls. These items are recommended for the correct operation of FSM products.