# FSLe CE

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
- Approved for use in non-hazardous, hazardous and corrosive environments
- Full range of controls and accessories
- Available for 110-120VAC and 220-277 VAC

## FEATURES

FREEZSTOP LITE is a light industrial/commercial grade selfregulating heating tape that can be used for freeze protection or temperature maintenance of pipework and vessels in the construction and refrigeration industries.

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

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

Its self-regulating characteristics improve safety and reliability. FREEZSTOP LITE 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 LITE is quick and simple and requires no special skills or tools. Termination, splicing and power connection components are all provided in convenient kits.

## OPTIONS

- FSLe..C Tinned copper braid providing mechanical protection or where traced equipment does not provide an effective earth path. eg. plastic pipework.
- FSLe .. CT Thermoplastic overjacket over tinned copper braid provides additional protection.
- FSLe .. CF Fluoropolymer overjacket over tinned copper braid provides protection where corrosive chemical solutions or vapours may be present.







# SPECIFICATION

MAXIMUM TEMPERATURE	65°C (149°F)
MAX. PERMISSIBLE TEMPE de-energised (1000 hrs cum	( )
MINIMUM INSTALLATION TEMPERATURE	-40°C (-40°F) (CENELEC -20°C, -4°F)
POWER SUPPLY	110 – 120VAC, 220 – 277VAC
TEMPERATURE CLASSIFICATION	up to 23W/m T6 (85°C) 31W/m and/or 277V T4 (135°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
FSLe	8.5 x 3.9	4.6	25mm	M20
FSLe C	9.3 x 4.7	9.2	30mm	M20
FSLe CT	10.5 x 5.9	10.2	35mm	M20
FSLe CF	10.5 x 5.9	9.9	35mm	M20

#### APPROVAL DETAILS

Testing Authority	Certificate No.	Standard
CENELEC 🐼	SCS Ex 99E3146	EN50014 & EN50019
ATEX (Ex)	Sira 02ATEX3074	EN50014, EN50019 & IEC62086
IEC IEC	Sira 02Y3064	CEI IEC62086 & IEC60079-7
FM STATE	3009080	ANSI/IEEE Std 515
VDE 🚵	114665	DIN VDE 0254
CSA 🚯	214197-1295278	C22.2 No. 130.1 C22.2 No. 130.2 C22.2 No. 138

Further approvals are available on request.

#### ORDERING INFORMATION

Example	12FSLe2-CT
Output 12W/m at 5°C	
FREEZSTOP LITE	
Supply Voltage 220 – 277VAC	
Tinned Copper Braid	
Thermoplastic Outerjacket	

#### **ACCESSORIES**

Heat Trace 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 FSLe products.

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

Cat Ref	Start-up Temperature	230V 6A	10A	16A	20A
12FSLe	5°C	78	132	180	-
	0°C	74	124	180	-
	–20°C	56	94	150	180
	-40°C	46	76	124	154
17FSLe	5°C	62	104	146	-
	0°C	60	100	146	-
	–20°C	48	82	130	146
	-40°C	42	70	112	138
23FSLe	5°C	46	76	124	-
	0°C	42	70	114	124
	–20°C	34	56	88	110
	-40°C	28	46	72	90
31FSLe	5°C	34	58	92	102
	0°C	32	52	84	102
	–20°C	24	40	56	66
	-40°C	20	34	54	66

For use with Type C circuit breakers to BS EN60898

#### THERMAL RATINGS

Nominal output at 115V or 230V when FSLe is installed on insulated metal pipes.





#### FURTHER INFORMATION

Please consult the appropriate termination instructions and the Heat Trace Installation, Testing and Maintenance Manual (IMEHT010) for further details. For VDE compliant heaters, please consult the installation principles for flexible electric heat tracing (TDS9078/001).



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