

- 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 220-277VAC

FEATURES

FREEZSTOP EXTRA is an industrial grade, self-regulating heating tape that can be used freeze protection or temperature maintenance to 80°C.

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

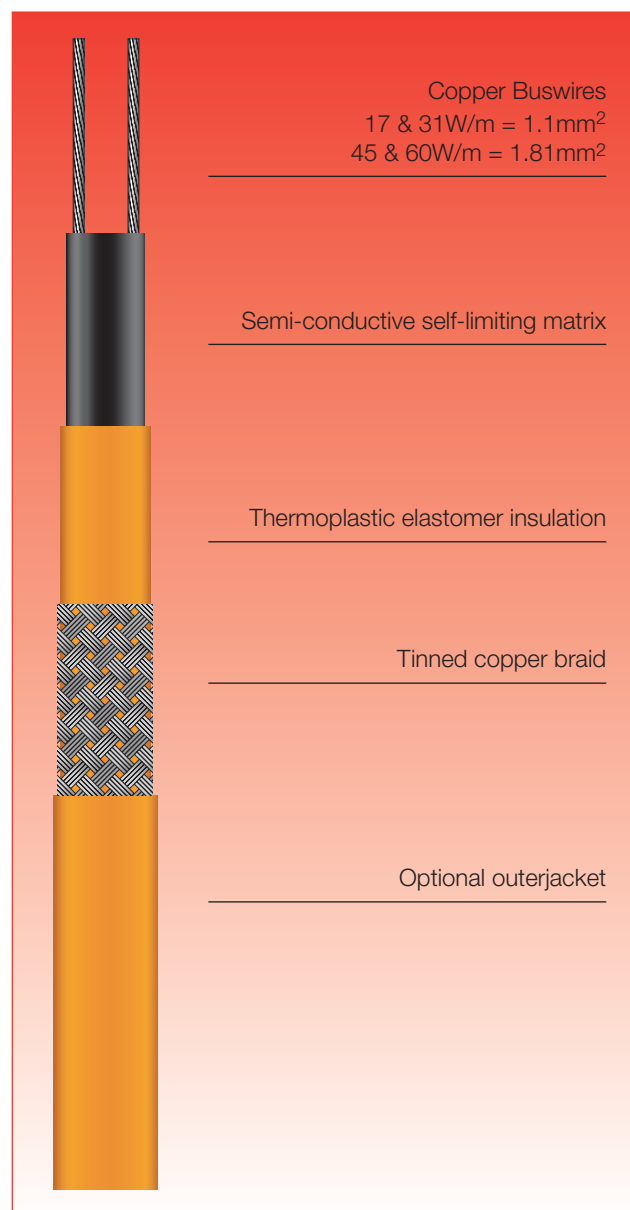
FREEZSTOP EXTRA is approved for use in non-hazardous and hazardous areas to world wide standards.

Its self-regulating characteristics improve safety and reliability. FREEZSTOP EXTRA will not overheat or burnout, even when overlapped upon itself.

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

OPTIONS

- FSE(w) .. C Tinned copper braided heater for where traced equipment does not provide an effective earth path, eg. plastic pipework
- FSE(w) .. CT Thermoplastic overjacket over tinned copper braid provides additional protection.
- FSE(w) .. CF Fluoropolymer overjacket over tinned copper braid provides protection where corrosive chemical solutions or vapours may be present.



SPECIFICATION

MAXIMUM TEMPERATURE 80°C (176°F)

MAX. PERMISSIBLE TEMPERATURE de-energised (1000 hrs cumulative) 100°C (212°F)

MINIMUM INSTALLATION TEMPERATURE -40°C (-40°F)
(GENELEC -20°C, -4°F)

POWER SUPPLY 110 - 120 VAC, 220 - 277 VAC

TEMPERATURE CLASSIFICATION T4 (135°C)

MAXIMUM RESISTANCE OF PROTECTIVE BRAIDING 18.2 Ohm/km

WEIGHTS & DIMENSIONS

Type Ref	Nominal Dimensions (mm)	Weight kg/100m	Minimum Bending radius	Gland Size
FSE	10.9 x 3.8	5.8	20mm	M20
FSE .. C	11.8 x 4.7	11.2	25mm	M20
FSE .. C*	13.1 x 6.0	13.2	30mm	M20
FSEw	12.5 x 3.9	11.5	20mm	M20
FSEw .. C	13.5 x 5.0	18.4	25mm	M20
FSEw .. C*	15.0 x 6.5	18.9	30mm	M25

* Denotes (T)hermoplastic, or (F)luoropolymer outerjacket

APPROVAL DETAILS

Testing Authority	Certificate No.	Standard
ATEX 	Sira 02ATEX3076	EN50014 & EN50019
IEC 	Sira 02Y3066	CEI IEC62086
Lloyds Register	02/00062	EN50014, EN50019, BS6351, IEEE Std 515

Further approvals are available on request.

ORDERING INFORMATION

Example

Output 45W/m at 10°C	_____	45FSEw2-CF
FREESTOP EXTRA	_____	
Wide version (45 and 60W/m only)	_____	
Supply Voltage 220 - 277V AC	_____	
Tinned Copper Braid	_____	
Fluoropolymer Outerjacket	_____	

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 tapes.

MAXIMUM LENGTH (m) vs. CIRCUIT BREAKER SIZE

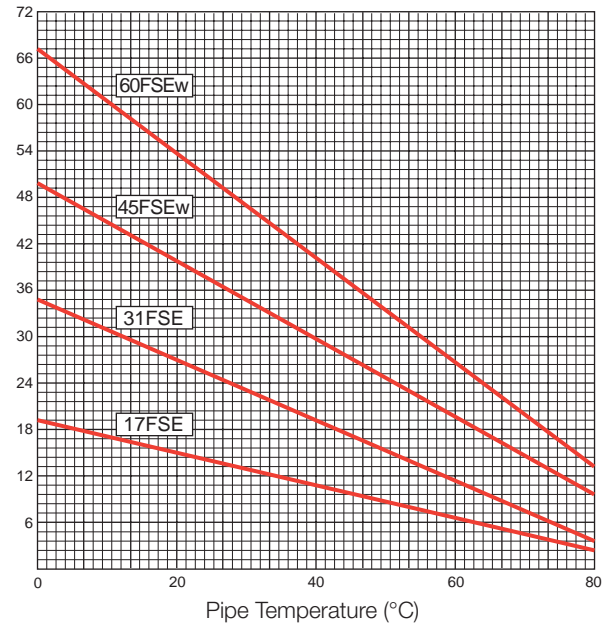
Cat Ref	Start-up Temperature	230V				
		6A	10A	16A	20A	25A
17FSE	10°C	46	76	120	148	-
	0°C	36	62	98	122	148
	-20°C	24	42	66	82	102
	-40°C	16	28	44	56	68
31FSE	10°C	32	52	82	104	110
	0°C	26	42	68	84	106
	-20°C	16	28	46	56	70
	-40°C	12	18	30	38	48
45FSEw	10°C	24	38	62	76	96
	0°C	20	32	50	64	80
	-20°C	12	22	34	42	52
	-40°C	8	14	22	28	34
60FSEw	10°C	20	35	52	66	82
	0°C	16	28	44	56	70
	-20°C	12	20	32	40	50
	-40°C	8	14	22	28	34

For use with Type C circuit breakers to BS EN60898:1991

THERMAL RATINGS

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

W/m



FURTHER INFORMATION

Please consult the appropriate termination instructions and the Heat Trace Installation, Maintenance and Testing Manual (IMEHT010) for further details.



Tracer House, Cromwell Road, Bredbury, Stockport, Cheshire, SK6 2RF, UK
Tel: +44(0)161-430 8333 Fax: +44(0)161-430 8654 <http://www.heat-trace.com>

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- 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 - 120 and 220 - 277VAC

FEATURES

FREEZSTOP PLUS is an industrial grade, self-regulating heating tape that can be used freeze protection or temperature maintenance to 110°C.

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

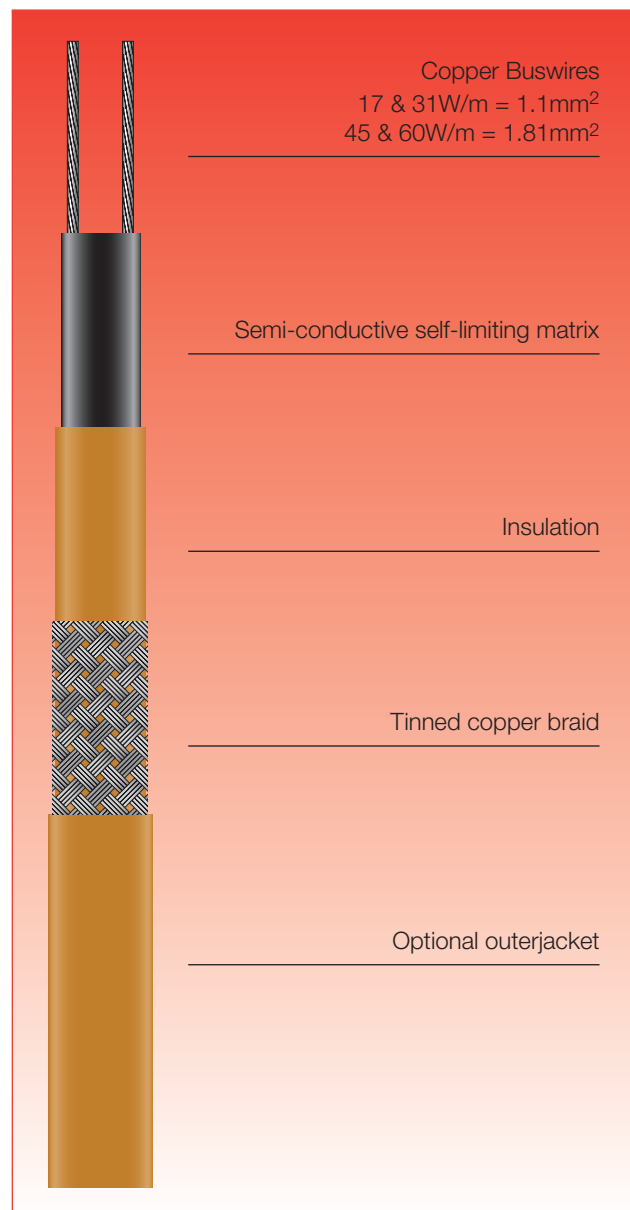
FREEZSTOP PLUS is approved for use in non-hazardous, hazardous and corrosive environments to world wide standards.

Its self-regulating characteristics improve safety and reliability. FREEZSTOP PLUS will not overheat or burnout, even when overlapped upon itself.

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

OPTIONS

- FSP(t)(w) .. C Tinned copper braid for non-hazardous areas, hazardous areas or where traced equipment does not provide an effective earth path, eg. plastic pipework
- FSP(t)(w) .. CT Thermoplastic outerjacket over tinned copper braid provides additional protection.
- FSP(t)(w) .. CF Fluoropolymer outerjacket over tinned copper braid provides protection where corrosive chemical solutions or vapours may be present.



SPECIFICATION

MAXIMUM TEMPERATURE	110°C (230°F)
MAX. PERMISSIBLE TEMPERATURE de-energised (1000 hrs cumulative)	135°C (275°F)
MINIMUM INSTALLATION TEMPERATURE	-30°C (-22°F) (CENELEC -20°C, -4°F)
TEMPERATURE CLASSIFICATION	up to 45W/m T4 (135°C) 60W/m T3 (200°C)
POWER SUPPLY	110 – 120VAC, 220 – 277VAC

MAXIMUM RESISTANCE OF PROTECTIVE BRAIDING	18.2 Ohm/km
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WEIGHTS & DIMENSIONS

Type Ref	Nom. Dims. (mm)	Weight kg/100m	Min. Bending radius	Gland Size
FSP(t)	9.9 x 3.3	7.1	20mm	M20
FSP(t) .. C	10.8 x 4.1	10.4	25mm	M20
FSP(t) .. C*	12.0 x 5.3	13.9	30mm	M20
FSP(t)w	12.4 x 3.4	9.7	20mm	M20
FSP(t)w .. C	13.3 x 4.3	16.6	25mm	M20
FSP(t)w .. C*	14.6 x 5.6	17.1	30mm	M25

* Denotes (T)hermoplastic, or (F)luoropolymer outerjacket

APPROVAL DETAILS

Testing Authority	Certificate No.	Standard
CENELEC	SCS Ex 94D3079	EN50014 & EN50019
ATEX	Sira 02ATEX3071	EN50014, EN50019 & IEC62086
IEC	Sira 02Y3061	CEI IEC62086 & IEC60079-7
FM	J.I.3YA0.AX (3770)	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
Lloyds Register	02/00062	EN50014, EN50019, BS6351, IEEE Std 515

Further approvals are available on request.

ORDERING INFORMATION

Example	45FSPtw2-CF
Output 45W/m at 10°C	_____
FREESTOP PLUS	_____
Insulation jacket* (optionally Thermoplastic)	_____
Wide version (45 and 60W/m only)	_____
Supply Voltage 220 - 277V AC	_____
Tinned Copper Braid	_____
Fluoropolymer Outer jacket	_____

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 tapes. When used in hazardous areas, only use approved components.

* Standard insulation material is fluoropolymer

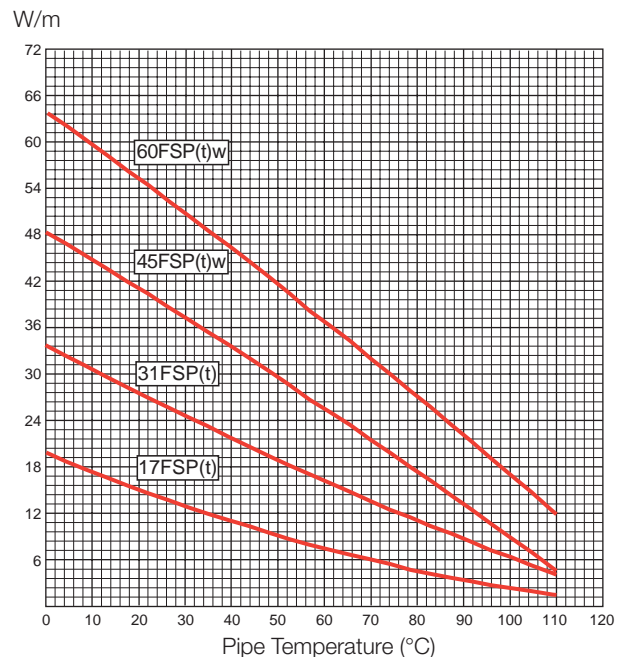
MAXIMUM LENGTH (m) vs. CIRCUIT BREAKER SIZE

Cat Ref	Start-up Temperature	230V				
		6A	10A	16A	20A	25A
17FSP(t)	10°C	60	100	154	-	-
	0°C	52	86	136	154	-
	-20°C	40	66	106	132	154
	-40°C	36	60	96	120	150
31FSP(t)	10°C	38	64	102	110	-
	0°C	34	56	90	110	-
	-20°C	24	40	62	78	98
	-40°C	22	38	60	76	94
45FSP(t)w	10°C	22	38	60	76	96
	0°C	20	34	56	68	84
	-20°C	14	24	38	46	58
	-40°C	14	22	36	46	56
60FSP(t)w	10°C	20	34	52	66	82
	0°C	18	30	48	58	74
	-20°C	12	22	34	44	54
	-40°C	12	20	32	40	48

For use with Type C circuit breakers to BS EN60898:1991

THERMAL RATINGS

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



FURTHER INFORMATION

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

HEAT TRACE™
SETTING THE STANDARDS LEADING THE WAY

Tracer House, Cromwell Road, Bredbury, Stockport, Cheshire, SK6 2RF, UK
Tel: +44(0)161-430 8333 Fax: +44(0)161-430 8654 <http://www.heat-trace.com>

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