



FREEZE STOP REGULAR

Self-Regulating Heating Cable (FSR)



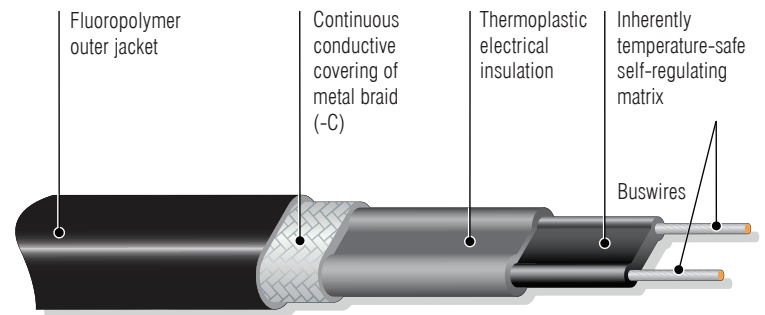
DESCRIPTION

Freeze Stop Regular (FSR) 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.

Freeze Stop Regular (FSR) is approved for use in nonhazardous, hazardous and corrosive environments to world wide standards. Its self-regulating characteristics improve safety and reliability. The cable will not overheat or burnout, even when overlapped upon itself. The power output is self-regulated in response to the pipe temperature.

The installation of Freeze Stop Regular (FSR) is quick and simple and requires no special skills or tools. Termination, splicing and power connection components are all provided in convenient kits.

CABLE CONSTRUCTION



FEATURES

- Automatically adjusts heat output in response to increasing or decreasing pipe temperature.
- Can be cut-to-length with no waste.
- Will not overheat or burnout, even when overlapped.
- Full range of controls and accessories.
- Approved for use in non-hazardous, hazardous and corrosive environments.
- Available up to 277VAC.

INHERENTLY TEMPERATURE-SAFE

Freeze Stop Regular has 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.

CERTIFICATIONS

CSA - 1295278, 1547590



SPECIFICATIONS

Voltage	12VAC to 277VAC .
Protection type/ certifications	Class I, Div. 2, Groups A, B, C, D Class II, Div. 2, Groups F, G Class III, Div. 2
Installation temperature	Min. installation temperature: -40 °C.
Operating temperature	Min. operating temperature: -65 °C.
Continuous exposure	Max. temperature (power on): 85 °C.
Permissible exposure	Max. temperature (power off): 85 °C.

INSTALLATION

Please consult the appropriate termination instructions and the Heat Trace Design, Installation & Maintenance Manual for complete installation instructions. Electrical connection of the heating system and thermostat should be done only by a qualified electrician.

WARRANTY

Warranted free from manufacturers defect for 2 years.
Visit www.britech.ca for limited warranty details.



Made in England

MAX. HEATING CIRCUIT LENGTH AT 120V (m)

PRODUCT #	START-UP TEMPERATURE	CIRCUIT BREAKER CAPACITY ¹			
		10A	16A	20A	32A
10FSR	10 °C (50 °F)	73	107	107	107
	0 °C (32 °F)	66	102	102	102
	-20 °C (-4 °F)	58	94	95	95
	-40 °C (-40 °F)	52	83	90	90
17FSR	10 °C (50 °F)	50	80	82	82
	0 °C (32 °F)	45	72	78	78
	-20 °C (-4 °F)	40	64	73	73
	-40 °C (-40 °F)	36	57	69	69
25FSR	10 °C (50 °F)	40	64	67	67
	0 °C (32 °F)	37	58	65	65
	-20 °C (-4 °F)	32	51	60	60
	-40 °C (-40 °F)	28	45	57	57
31FSR	10 °C (50 °F)	31	50	60	60
	0 °C (32 °F)	28	45	56	57
	-20 °C (-4 °F)	25	40	50	54
	-40 °C (-40 °F)	23	36	44	51
40FSR	10 °C (50 °F)	25	40	50	53
	0 °C (32 °F)	23	36	45	51
	-20 °C (-4 °F)	19	31	40	48
	-40 °C (-40 °F)	17	28	36	45

MAX. HEATING CIRCUIT LENGTH AT 208V (m)

PRODUCT #	START-UP TEMPERATURE	CIRCUIT BREAKER CAPACITY ¹			
		10A	16A	20A	32A
10FSR	10 °C (50 °F)	125	182	182	182
	0 °C (32 °F)	112	173	173	173
	-20 °C (-4 °F)	99	160	162	162
	-40 °C (-40 °F)	88	141	152	152
17FSR	10 °C (50 °F)	84	136	140	140
	0 °C (32 °F)	77	123	132	132
	-20 °C (-4 °F)	68	108	125	125
	-40 °C (-40 °F)	61	97	118	118
25FSR	10 °C (50 °F)	68	108	114	114
	0 °C (32 °F)	62	99	110	110
	-20 °C (-4 °F)	55	86	103	103
	-40 °C (-40 °F)	48	77	97	97
31FSR	10 °C (50 °F)	53	84	103	103
	0 °C (32 °F)	48	77	95	97
	-20 °C (-4 °F)	42	68	84	92
	-40 °C (-40 °F)	39	61	75	86
40FSR	10 °C (50 °F)	42	68	84	90
	0 °C (32 °F)	39	61	77	86
	-20 °C (-4 °F)	33	53	68	81
	-40 °C (-40 °F)	29	48	61	77

MAX. HEATING CIRCUIT LENGTH AT 240V (m)

PRODUCT #	START-UP TEMPERATURE	CIRCUIT BREAKER CAPACITY ¹			
		10A	16A	20A	32A
10FSR	10 °C (50 °F)	147	214	214	214
	0 °C (32 °F)	132	203	203	203
	-20 °C (-4 °F)	117	188	190	190
	-40 °C (-40 °F)	104	166	179	179
17FSR	10 °C (50 °F)	99	160	164	164
	0 °C (32 °F)	91	145	156	156
	-20 °C (-4 °F)	80	127	147	147
	-40 °C (-40 °F)	71	114	138	138
25FSR	10 °C (50 °F)	80	127	134	134
	0 °C (32 °F)	73	117	130	130
	-20 °C (-4 °F)	65	102	121	121
	-40 °C (-40 °F)	56	91	114	114
31FSR	10 °C (50 °F)	63	99	121	121
	0 °C (32 °F)	56	91	112	114
	-20 °C (-4 °F)	50	80	99	108
	-40 °C (-40 °F)	45	71	89	102
40FSR	10 °C (50 °F)	50	80	90	106
	0 °C (32 °F)	45	71	91	102
	-20 °C (-4 °F)	39	63	80	95
	-40 °C (-40 °F)	35	56	71	83

Max. circuit length (m) for use with type C circuit breakers to IEC 60898. To calculate circuit length in ft. multiply by 3.28.

¹ Breaker sizing should be based on the National Electrical Code, Canadian Electrical Code or any other applicable code. The NEC and CEC require ground-fault protection of equipment for each branch circuit supplying electric heating equipment. Check local codes for ground-fault protection requirements.

TEMPERATURE CLASSIFICATION

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

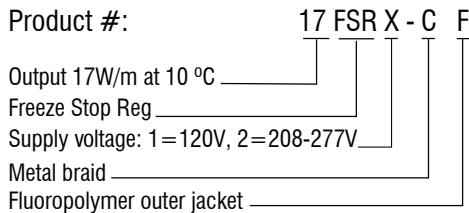
WEIGHTS & DIMENSIONS

Product #	Dimensions (mm) +/-0.5	Weight kg/100 m	Min. bending radius	Gland size
FSR-CF	12.25 x 5.95	12.6	35 mm	M20

CONSTRUCTION

- Fluoropolymer outer jacket over a metal braid provides protection where corrosive chemical solutions or vapours may be present.
- IP67 protection rating.

ORDERING INFORMATION:



Note: Some models are special order only. Minimum order quantity may apply.

HEATING POWER

Power temperature curves 120V and 240V

