SRP SELF-REGULATING PROCESS TEMPERATURE HEATING CABLE

PRODUCT OVERVIEW

- **A** Twin 16 AWG Copper Bus Wires
- **B** Semiconductive Polymer Core Matrix
- **C** Fluoropolymer Jacket
- **D** Tin-Plated Copper Braid
- **E** High-Temperature Fluoropolymer Overjacket

Chromalox® SRP self-regulating process temperatures heating cable provides the most versatility in industrial process heat trace designs and applications, delivering safe, reliable heat tracing for process maintenance applications to 230°F (110°C) or freeze protection of pipes, valves, and tanks with high heat losses. Self-regulating cables are flexible, can be cut-to-length and spliced in the field, and can be single-overlapped without fear of burnout in areas where complex piping and equipment require additional heat trace cable. The self-regulating cable adjusts its output to independently respond to temperatures along its length. It is for use on 120 and 208 to 277 V. Chromalox self-regulating cables are third-party tested and approved for use in ordinary, harsh corrosive, and hazardous area applications.

DESCRIPTION

The heating cable consists of two (2) 16 AWG nickel-plated copper bus wires embedded in a self-regulating polymeric core that controls power output. A flame-retardant, high-temperature fluoropolymer jacket electrically insulates the matrix and bus wires and provides corrosion resistance.

A tinned copper braiding provides added mechanical protection in any environment and a positive ground path. A corrosion-resistant, high-temperature fluoropolymer overjacket protects against exposure to organic or corrosive solutions and against abrasion and impact damage.

WARNING — A ground fault protection device is required by Chromalox, agency certifications, and NEC to minimize the danger of fire if the heating cable is dam-aged or improperly installed. A minimum trip level of 30 mA is recommended to minimize nuisance tripping.

APPLICATION

Trace Surface Type ..... Metal

Chemical Resistance ..... Exposure to aqueous solutions of inorganic compounds

Exposure to liquids, organic chemicals, acids, or bases

VOLTAGE SUPPLY

120 Vac

208 to 277 Vac

TEMPERATURE RATING

Maximum Maintenance Temperature ..... 230°F (110°C)

Maximum Exposure Temperature, Power Off ..... 275°F (135°C)

Minimum Installation Temperature ..... -40°F (-40°C)

APPROVALS

- Ordinary Areas
- Class I, Div. 2 Groups B, C, D
- Class II, Div. 2 Groups F, G
- Class III, Div. 1, Type 4X
- Class 1, Zone 1, AEx II, IP66 (with U Series connection kits)
- T-rating*

* T4 (135C): SRP 5-1, 10-1, 15-1 (with U Series Connection kits)
T4A (120C):, SRP 5-2, 10-2, 15-2

- FM 17ATEX0032X II 2 G Ex e IIC T4 Gb**
- Ta -40C to 70C, IP66

- FMG 17.0015X Ex e IIC T4 Gb**
- Ta -40C to 70C, IP66

** (UPC, UMC, UES and RTES only)

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DESIGN AND INSTALLATION

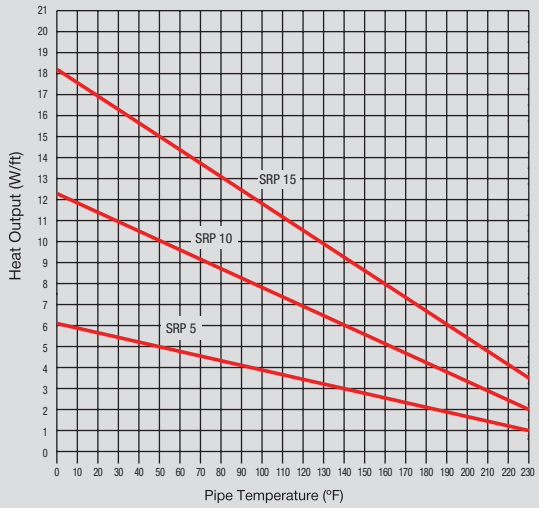
For proper design and installation, use ChromaTrace 3.0 Heat Trace Project Design Software. Additional resources include the Chromalox Heat Trace Design Guide (PJ130), Pipe Heat Tracing Design Worksheet (PJ305), and Chromalox Industrial Heating Cable Products Installation Instructions (PJ438). These resources are available on the Chromalox website, www.chromalox.com.

NOMINAL POWER OUTPUT RATINGS

Output Wattage at Alternate Voltages, 50°F (10°C), W/ft (W/m)

Model	208 V	% Change in Output	220 V	% Change in Output	277 V	% Change in Output
SRP 5	3.8 (12.32)	-20	4.25 (13.94)	-13	6.45 (20.64)	+15
SRP 10	8.3 (26.56)	-18	8.80 (28.16)	-10	12.50 (40.00)	+13
SRP 15	12.75 (40.80)	-14	13.50 (43.20)	-9	18.45 (59.04)	+12

Thermal Output Ratings on Insulated Metal Pipe



*Thermal output is determined per IEC / IEEE 62395-1 Electrical Resistance Trace Heating Systems for Industrial and Commercial Applications

MAXIMUM CIRCUIT LENGTHS

Model	Ambient Temperature at Startup	Maximum Circuit Length in Feet (Meters) per Circuit Breaker									
		120 Vac					208 to 277 Vac				
		15 A	20 A	30 A	40 A	50 A	15 A	20 A	30 A	40 A	50 A
SRP 5	50°F (10°C)	145 (44)	195 (59)	295 (90)	390 (119)	490 (180)	295 (90)	385 (117)	580 (177)	750 (229)	750 (229)
	0°F (-18°C)	110 (34)	145 (44)	215 (66)	295 (90)	360 (110)	220 (67)	290 (88)	430 (131)	580 (177)	720 (219)
	-20°F (-29°C)	70 (21)	90 (27)	135 (41)	180 (55)	225 (69)	135 (41)	180 (55)	270 (82)	360 (110)	450 (137)
SRP 10	50°F (10°C)	100 (30)	135 (41)	200 (61)	270 (82)	330 (101)	200 (61)	270 (82)	400 (122)	530 (162)	665 (203)
	0°F (-18°C)	70 (21)	95 (29)	145 (44)	190 (58)	240 (73)	145 (44)	190 (58)	290 (88)	380 (116)	480 (146)
	-20°F (-29°C)	65 (20)	85 (26)	130 (40)	175 (53)	215 (66)	130 (40)	175 (53)	260 (79)	350 (10)	440 (134)
SRP 15	50°F (10°C)	75 (23)	100 (30)	150 (46)	200 (61)	250 (76)	150 (46)	195 (59)	295 (90)	390 (119)	500 (152)
	0°F (-18°C)	60 (18)	80 (24)	120 (37)	160 (49)	200 (61)	120 (37)	160 (49)	235 (72)	320 (98)	400 (122)
	-20°F (-29°C)	55 (17)	70 (21)	110 (34)	145 (44)	180 (55)	110 (34)	145 (44)	220 (67)	290 (88)	360 (110)

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PRODUCT CHARACTERISTICS

Minimum Bend Radius 1.125 (28.5)

Bus Wire Size ..... 16 AWG

Heating Cable Dimensions ..... 0.48 x 0.21 (12.1 x 5.3)

Weight, lb per 1,000 ft (kg per 300 m) 80 (36)

CONNECTION KITS

Chromalox has a complete line of accessories specifically designed for use with SRL cable. Use only Chromalox accessories to ensure the performance of the heat trace system, compliance with warranty, codes, and approval requirements.

	Accessories	U Series	DL Series
Power Connection	Heat trace to electrical service connection	UPC	RTPC
Splice & Tee		UMC	RTST
End Seal	For terminating cable	UES	RTES
Lighted End Seal		UESL	RTST-SL*
Thermostat	Ambient air sensing thermostat	TXL	RTAS*/RTAS-EP
	Line sensing mechanical thermostat	TXR	RTBC*/RTBC-EP

*Ordinary locations only

ORDERING INFORMATION

Model	Volts	Output (W/ft.)	PCN
SRP 5-1CT	120	5 @ 50F	387188
SRP 5-2CT	208-277	5 @ 50F	387225
SRP 10-1CT	120	10 @ 50F	387129
SRP 10-2CT	208-277	10 @ 50F	387196
SRP 15-1CT	120	15 @ 50F	387073
SRP 15-2CT	208-277	105@ 50F	387137

CHROMALOX

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*press 1 to be directed to heat trace support