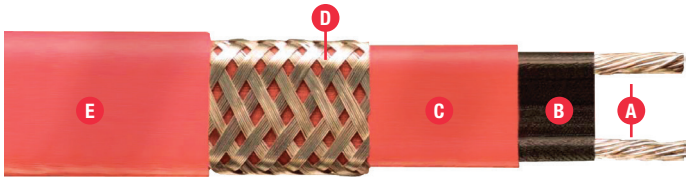
SRM/E SELF-REGULATING MEDIUM-TEMPERATURE HEATING CABLE

PRODUCT OVERVIEW



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

Chromalox® SRM/E self-regulating medium temperature heating cable provides the most versatility in industrial process heat trace designs and applications, delivering safe, reliable heat for freeze protection and temperature maintenance of pipes, valves, tanks, and similar applications. Self-regulating cables are fl exible, can be cut-to-length and spliced in the fi eld, 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 so that the cable can be used directly on metal pipes and tanks. A flame-retardant, high-temperature fluoropolymer jacket electrically insulates the matrix and bus wires and provides corrosion resistance.

A metallic braid covering serves added mechanical protection in any environment and a positive ground path. The high-temperature fluoropolymer overjacket provides additional protection in most hostile, chemically active environments 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 damaged or improperly installed. A minimum trip level of 30 mA is recommended to minimize nuisance tripping. All intelliTRACE control and monitoring systems meet the ground-fault protection requirement.

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 (240 Vac nominal)

TEMPERATURE RATING

Maximum Maintenance Temperature	302°F (150°C)
Maximum Exposure Temperature, Power Off	420°F (215°C)
Minimum Installation Temperature	-76°F (-60°C)

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APPROVALS

- Ordinary Areas

- Class I, Division 2 Groups B, C, D
- Class II, Division 2, Groups F, G
- Class III, Dvision 2
- T-Rating*

- Ordinary Areas
- Class I, Division 1& 2, Groups B, C, D
- Class II, Division 1& 2, Groups F, G
- Class III
- T-Rating*

*T3[1]: 329˚F (200˚C), SRM/E 5, 8
T2D: 419˚F (215˚C), SRM/E 10, 15, 20
[1]Cable surface temperature shall not exceed 374˚F (190˚C) in Class II Div @, Group F; 329˚F (165˚C) in Class II, Div. 2 Group G

- ETL 24ATEX0405X II 2 G Ex eb IIC Gb T3
- Ta -60˚C to 195˚C

- ITS 07.0018X Ex eb II Gb T3
- Ta -60˚C to 195˚C

- 14-HS1203281B-PDA

- II 2 G Ex eb IIC Gb T3

- Ex e IIC T*** IP66
- Ex e II T3... T5

- Suitable for Hazardous Areas
- T-Rating***

***T3: 392˚F (200˚C), SRM/E 5, 8
T2: 572˚F (300˚C) SRM/E 10, 15, 20

DESIGN & INSTALLATION

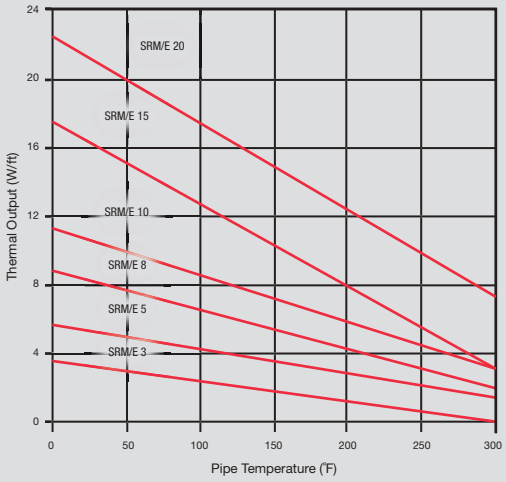
For proper design and installation, use ChromaTrace Heat Trace Project Design Software. Additional resources include the Chromalox Heat Trace Design Guide (PJ130), Pipe Heat Tracing Design Worksheet (PJ305), and Chromalox Industrial Heating Cable Products Installation Instructions (PJ438). These resources 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	208V	% Change in Output	220V	% Change in Output	277V	% Change in Output
SRM/E 5 -2	3.85 (12.63)	-23	4.25 (13.94)	-15	6.45 (21.16)	+22
SRM/E 8 -2	6.40 (20.99)	-20	6.88 (22.57)	-14	10.24 (33.59)	+22
SRM/E 10 -2	8.30 (27.22)	-17	8.80 (28.86)	-12	12.50 (41.00)	+20
SRM/E 15 -2	12.75 (41.82)	-15	13.50 (44.28)	-10	18.45 (60.52)	+19
SRM/E 20 -2	17.60 (57.73)	-12	18.40 (60.35)	-8	24.40 (80.03)	+18

Thermal Output Ratings on Insulated Metal Pipe at 120 Vac/240 Vac



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

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MAXIMUM CIRCUIT LENGTH

Model	Ambient Temp. 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
SRM/E 5	50˚F (10˚C)	180 (55)	240 (73)	360 (110)	375 (114)	NR	360 (110)	480 (146)	720 (219)	750 (229)	NR
	0˚F (-18˚C)	165 (50)	220 (67)	440 (134)	375 (114)	NR	325 (99)	430 (131)	645 (197)	750 (229)	NR
	-20˚F (-29˚C)	155 (44)	210 (64)	310 (94)	375 (114)	NR	310 (94)	415 (126)	620 (189)	750 (229)	NR
SRM/E 8	50˚F (10˚C)	145 (44)	190 (58)	285 (87)	325 (99)	NR	285 (87)	380 (116)	575 (175)	650 (198)	NR
	0˚F (-18˚C)	135 (41)	175 (53)	265 (81)	325 (99)	NR	255 (78)	345 (105)	520 (158)	650 (198)	NR
	-20˚F (-29˚C)	130 (40)	165 (50)	250 (76)	325 (99)	NR	245 (75)	335 (102)	490 (149)	650 (198)	NR
SRM/E 10	50˚F (10˚C)	95 (29)	125 (38)	190 (58)	250 (76)	NR	190 (58)	255 (78)	385 (117)	490 (149)	NR
	0˚F (-18˚C)	90 (27)	110 (34)	175 (53)	250 (76)	NR	165 (50)	225 (69)	345 (105)	490 (149)	NR
	-20˚F (-29˚C)	85 (26)	100 (30)	170 (52)	245 (75)	250 (76)	155 (47)	215 (66)	330 (101)	470 (143)	490 (129)
SRM/E 15	50˚F (10˚C)	70 (21)	95 (29)	145 (44)	190 (58)	210 (64)	145 (44)	190 (58)	290 (88)	385 (117)	420 (128)
	0˚F (-18˚C)	65 (20)	85 (26)	125 (38)	165 (51)	210 (64)	120 (37)	175 (53)	270 (82)	360 (110)	420 (128)
	-20˚F (-29˚C)	60 (18)	80 (24)	120 (37)	150 (48)	210 (48)	115 (35)	165 (50)	260 (79)	340 (104)	420 (107)
SRM/E 20	50˚F (10˚C)	60 (18)	75 (23)	115 (35)	155 (47)	160 (48)	115 (35)	155 (47)	230 (70)	305 (93)	350 (107)
	0˚F (-18˚C)	50 (15)	65 (20)	105 (32)	140 (43)	160 (48)	100 (30)	135 (41)	200 (61)	270 (82)	350 (107)
	-20˚F (-29˚C)	45 (14)	65 (29)	100 (30)	135 (41)	160 (48)	90 (37)	130 (40)	195 (59)	255 (78)	335 (102)

*240 Vac nominal.

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PRODUCT CHARACTERISTICS

Minimum Bend Radius, in. (mm) ..... 1.125 in. (28.5)

Bus Wire Size ..... 16 AWG

Heating Cable Dimensions WxH, in. (mm) ..... 0.48 x 0.21 (12.1 x 5.3)

Weight, lb per 1,000 ft (kg per 300m) 100 (45)

CONNECTION KITS

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

Accessories		U Series	EL
Power Connection	Heat trace to electrical service connection	UPC	N/A
Splice & Tee		UMC	RT-TST
End Seal	For terminating cable	UES	N/A
Lightened End Seal		UESL	N/A
Thermostat	Ambient air sensing thermometer	UAS	THL/TXL
	Line sensing mechanical themostat	UBC	THR/TXR

ORDERING INFORMATION

Model	Volts	Output (W/Ft.)	PCN
SRM/E 5-1CT	120	5 @ 50˚F	388092
SRM/E 5-2CT	208 - 277	5 @ 50˚F	388121
SRM/E 8-1CT	120	8 @ 50˚F	388156
SRM/E 8-2CT	208 - 277	8 @ 50˚F	388180
SRM/E 10-1CT	120	10 @ 50˚F	388210
SRM/E 10-2CT	208 - 277	10 @ 50˚F	388244
SRM/E 15-1CT	120	15 @ 50˚F	388279
SRM/E 15-2CT	208 - 277	15 @ 50˚F	388316
SRM/E 20-1CT	120	20 @ 50˚F	388340
SRM/E 20-2CT	208 - 277	20 @ 50˚F	388375

CHROMALOX

1347 Heil Quaker Blvd
LaVergne, TN 37086

TECHNICAL SUPPORT
412-967-3940

*press 11 to be directed to heat trace support

email: sales@chromalox.com
www.chromalox.com