

# SRM/E

## Self-Regulating Medium Temperature/ Enhanced Heating Cable

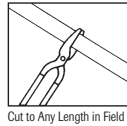
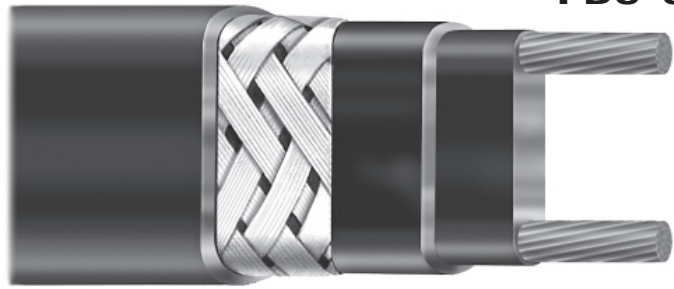
- Self-Regulating, Energy Efficient
- 14 AWG Buss Wire
- Circuit Lengths to 780 Feet
- Process Temperature Maintenance to 302°F (150°C)
- Maximum Exposure Temperature (Power Off) 420°F (215°C)
- Industrial Process Maintenance Applications
- Industrial Freeze Protection Applications
- Freeze Protection of Fire Protection System Piping
- Steam Cleanable On Process Equipment Up to 300 PSIG
- 3, 5, 8, 10, 15 and 20 Watts per Foot
- 120 and 208-277 Volts Available From Stock



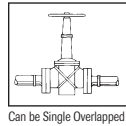
**Chromalox**<sup>®</sup>  
PRECISION HEAT AND CONTROL

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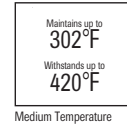
PDS SRM/E



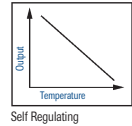
Cut to Any Length in Field



Can be Single Overlapped



Medium Temperature



Self Regulating

### Description

Chromalox SRM/E self-regulating heating cable provides safe, reliable heat tracing for process temperature maintenance and freeze protection of pipes, valves, tanks and similar applications. Constructed of industrial grade 14 AWG buss wire with metal braid and optional overjacketing, SRM/E ensures operating integrity in most hostile industrial environments. The 420°F (215°C) maximum exposure temperature rating allows steam cleaning of process equipment with up to 300 PSIG steam.

### Enhanced Features

- Industrial Grade, 14 gauge buss wire has higher current capacity, allowing longer circuit lengths up to 780 feet.
- Superior matrix to buss wire bonding ensures overall operating integrity and performance.
- High output, 20 Watts per foot heating cable.
- All ratings are available from stock.

### Features

- Energy efficient, self-regulating SRM/E uses less energy when less heat is required.
- Easy to install, SRM/E can be cut to any length (up to maximum circuit length) in the field.
- Field splices can be performed easily in minutes with no scrap or wasted cold sections.
- With lower installed cost than steam tracing, SRM/E features less maintenance expense and down time.
- SRM/E can be single overlapped without burnout, which simplifies heat tracing of in-line process equipment such as valves, elbows and pumps.
- Because SRM/E is self-regulating, overtemperature conditions are virtually impossible.
- Chromalox termination, splice, tee and end seal kits reduce installation time.
- UL listed for use on fire protection system piping

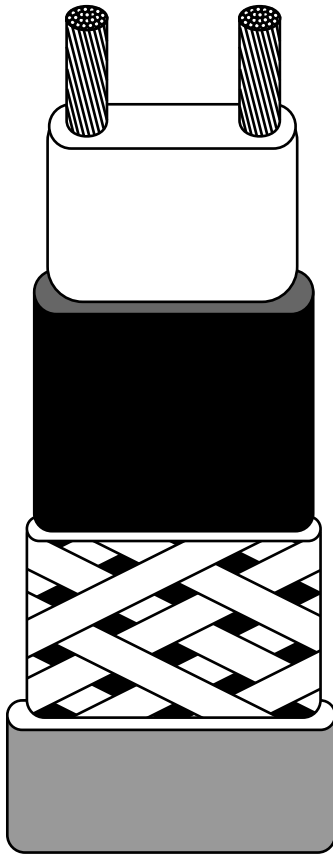


[www.chromalox.com](http://www.chromalox.com)

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# SRM/E – Self-Regulating Medium Temperature/Enhanced Heating Cable

## Construction



- Twin 14 AWG Copper Buss Wires ..... Provide reliable electrical current capability.
- Semiconductive Polymer Core Matrix ..... “Self-Regulating” component of the cable, its electrical resistance varies with temperature. As process temperature drops, the core’s heat output increases; as process temperature rises, the heat output decreases.
- High Temperature Fluoropolymer Jacket ..... Flame retardant, electrically insulates the buss wires and matrix, and provides corrosion resistance.
- Metallic Braid ..... Provides additional mechanical protection in any environment, and a positive ground path.
- High Temperature Fluoropolymer Overjacket (Optional) ..... Corrosion resistant, flame retardant overjacket is highly effective in most hostile, chemically active environments. It also protects against abrasion and impact damage.

## Approvals

**FM** - Factory Mutual approved for ordinary areas.

UL Listed, CSA Certified for ordinary areas.

UL Listed for fire protection system piping

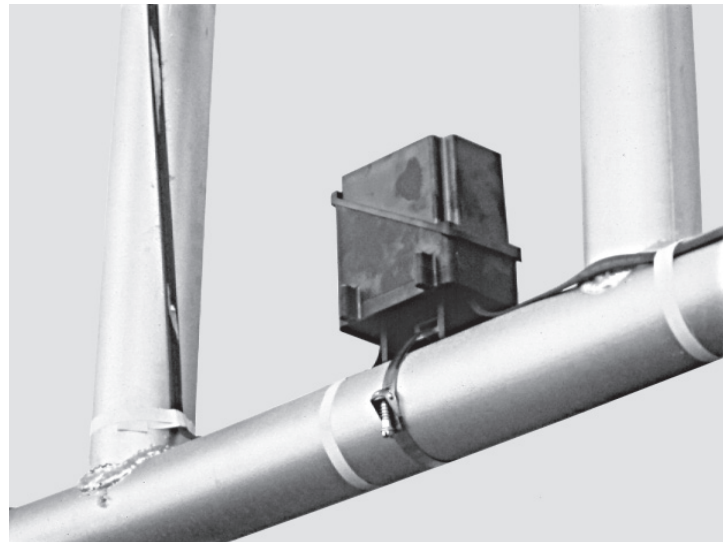
FM approved for hazardous (classified) areas when used with Chromalox accessories:

- Class I, Div. 2, Groups B, C, D (gases, vapors)
- Class II, Div. 2, Groups F, G (combustible dust)
- Class III, Div. 2 (easily ignitable fibers and filings)
- 3, 5 and 8 Watt rated T3 Temperature Class
- 10,15 and 20 Watt rated T2D Temperature Class

**CSA** Certified for hazardous (classified) areas when used with Chromalox accessories:

- Class I, Div. 2, Groups A, B, C, D
- Class II, Div. 2, Groups F, G
- Temperature Class T3\*

\*Exception: Cable surface temperature shall not exceed 190°C in Class II, Div. 2, Group F; 165°C in Class II, Div. 2, Group G.



## Applications

- Process Temperature Maintenance
- Hydrocarbon and Chemical Product Piping
- Freeze Protection of Periodically Steam-Cleaned Pipes
- Freeze Protection of Fire Protection System Piping
- Fluid Flow and Viscosity Maintenance

## Heating Cable System Design

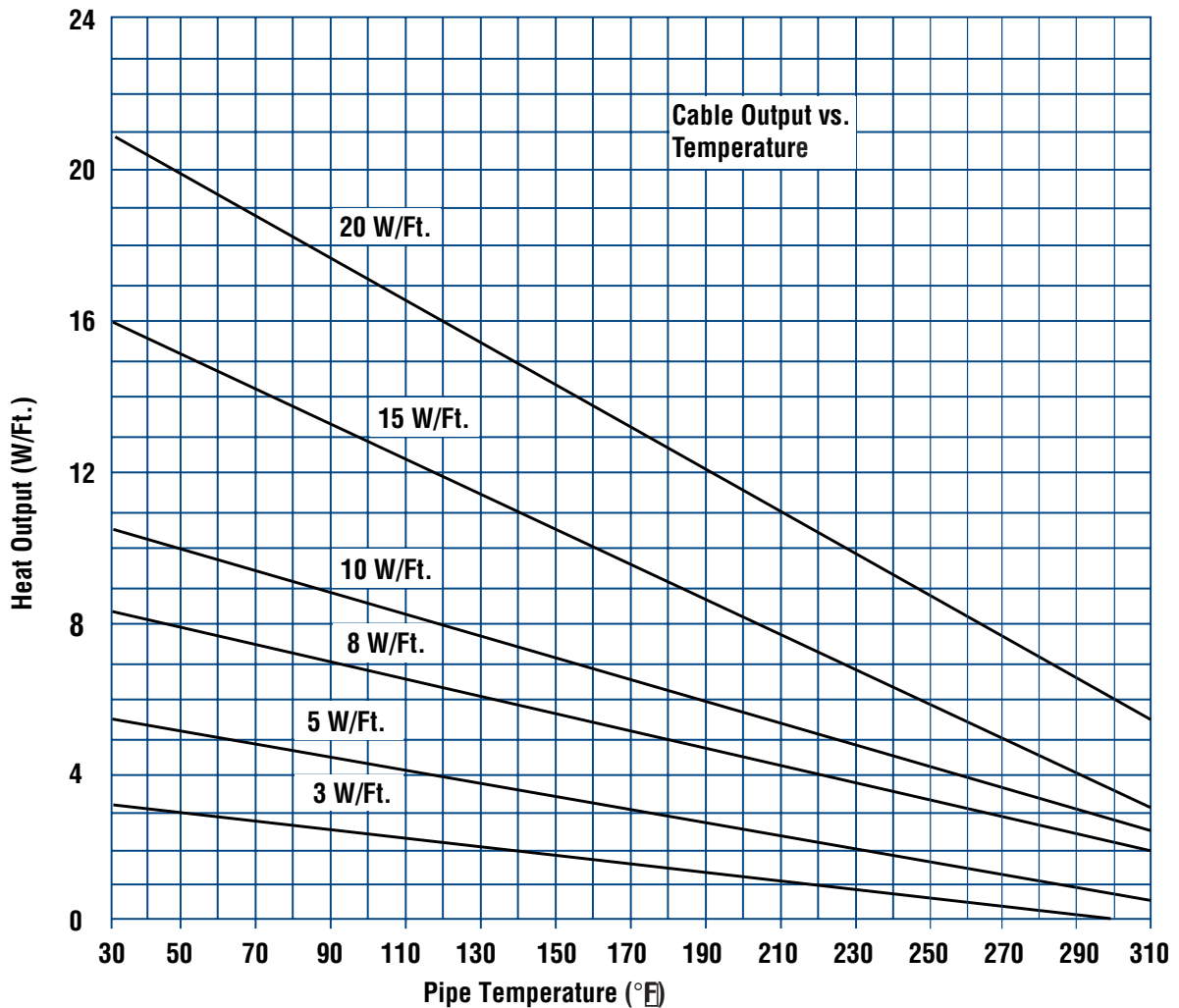
### 1. Calculate Heat Loss

Using the Chromalox Design Guide (PJ304) for Heat Tracing, calculate the heat loss of the system. To calculate the heat loss (Watts) you will need to know pipe diameter, insulation type and thickness, minimum ambient temperature and the pipe maintenance temperature.

### 2. Select Cable Rating

After calculating the heat loss in the pipe and adjusting for any application deviations, you may determine which cable rating to choose. Using the SRM/E Thermal Output Ratings graph, select the lowest cable rating that will provide the output required to offset the heat-loss at the desired maintenance temperature. Adjust the cable output for line voltage if necessary. Consult output wattage at alternative voltage table on page 5.

### Thermal Output Ratings On Insulated Metal Pipe



# SRM/E – Self-Regulating Medium Temperature/Enhanced Heating Cable

## Specifications

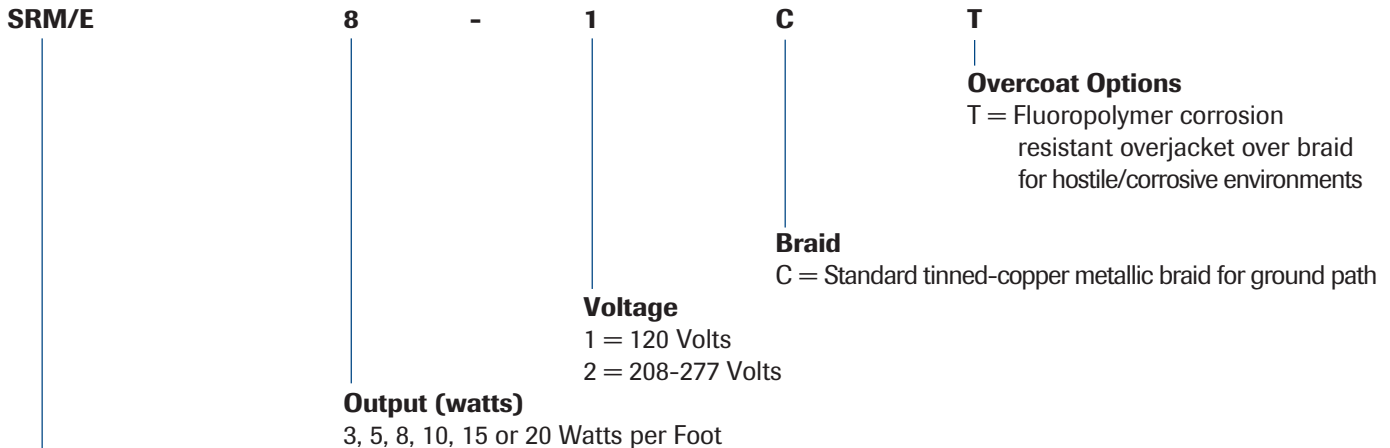
<b>Cable Ratings</b>			
Model Number	Output @ 50°F (W/Ft.)	Nominal Voltage (Vac)	Maximum Circuit Length* (Ft.)
SRM/E 3 -1C	3	120	385
SRM/E 3 -2C	3	240	780
SRM/E 5 -1C	5	120	375
SRM/E 5 -2C	5	240	750
SRM/E 8 -1C	8	120	325
SRM/E 8 -2C	8	240	600
SRM/E 10 -1C	10	120	250
SRM/E 10 -2C	10	240	490
SRM/E 15 -1C	15	120	210
SRM/E 15 -2C	15	240	420
SRM/E 20 -1C	20	120	160
SRM/E 20 -2C	20	240	350

\*See chart on page 4 for maximum circuit lengths by start-up temperature and circuit breaker size.

## Output Wattage at Alternate Voltages (50°F) W/Ft.

Cable Rating	208 Volts	220 Volts	277 Volts
SRM/E 3	2.31	2.55	3.90
SRM/E 5	3.85	4.25	6.45
SRM/E 8	6.40	6.88	10.24
SRM/E 10	8.30	8.80	12.50
SRM/E 15	12.75	13.50	18.45
SRM/E 20	17.60	18.40	24.40

## Model Numbers



**SRM/E**  
Self-Regulating, Medium Temperature/Enhanced Heating Cable

# Self-Regulating Medium Temperature/Enhanced Heating Cable – SRM/E

## Specifications

### Cable Ratings

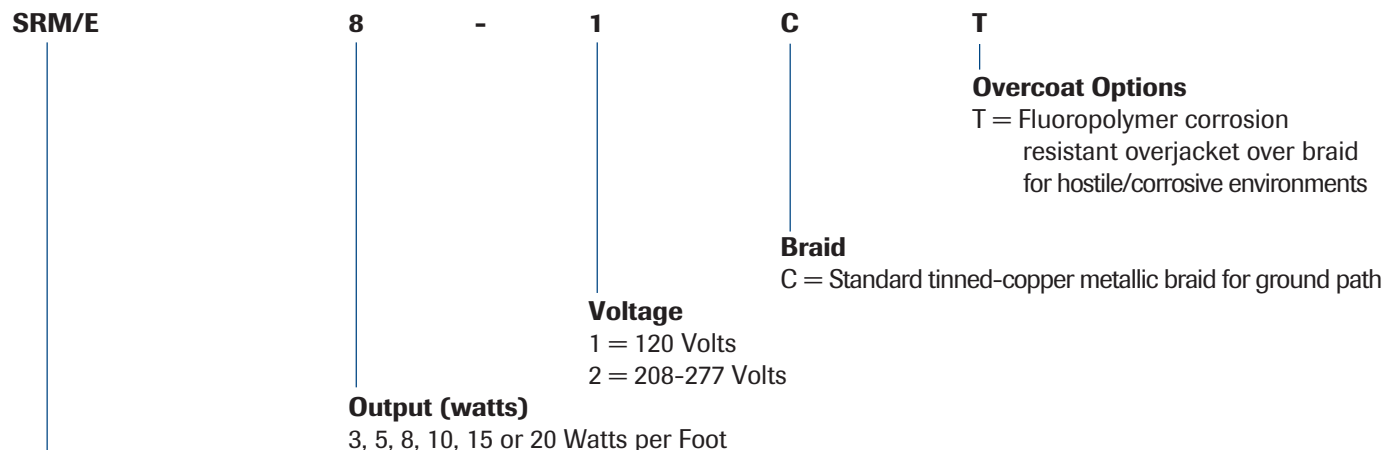
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SRM/E 8 -1C	8	120	325
SRM/E 8 -2C	8	240	600
SRM/E 10 -1C	10	120	250
SRM/E 10 -2C	10	240	490
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## Model Numbers



# SRM/E – Self-Regulating Medium Temperature/Enhanced Heating Cable

## Ordering Information

Output (W/Ft.)	Voltage	Model Number	PCN	Output (W/Ft.)	Voltage	Model Number	PCN
<b>3</b>	120	SRM/E 3-1 C	388025	<b>10</b>	120	SRM/E 10-1 C	388201
		SRM/E 3-1 CT	388033			SRM/E 10-1 CT	388210
	208-277	SRM/E 3-2 C	388050		208-277	SRM/E 10-2 C	388236
		SRM/E 3-2 CT	388068			SRM/E 10-2 CT	388244
<b>5</b>	120	SRM/E 5-1 C	388084	<b>15</b>	120	SRM/E 15-1 C	388260
		SRM/E 5-1 CT	388092			SRM/E 15-1 CT	388279
	208-277	SRM/E 5-2 C	388113		208-277	SRM/E 15-2 C	388308
		SRM/E 5-2 CT	388121			SRM/E 15-2 CT	388316
<b>8</b>	120	SRM/E 8-1 C	388148	<b>20</b>	120	SRM/E 20-1 C	388332
		SRM/E 8-1 CT	388156			SRM/E 20-1 CT	388340
	208-277	SRM/E 8-2 C	388172		208-277	SRM/E 20-2 C	388367
		SRM/E 8-2 CT	388180			SRM/E 20-2 CT	388375

**To Order:** Specify length, Model Number, PCN and Installation Accessories.

## Accessories

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.

	Model	Description
Thermostat	RTAS	DL Series air-sensing thermostat with Microswitch® for local control of circuit.
	RTBC	DL Series pipewall-sensing thermostat with Microswitch® for local control of circuit.
Power Connection	RTPC	DL Series power connection set kit.
	RTST	DL Series splice and tee set kit.
	RTES	DL Series end seal kit.
Pipe Straps	PS-1, PS-3, PS-10	Pipe straps to affix thermostat and power connection splice kits to pipes.
Fiberglass Tape	FT-2	Tape to affix cable to pipe, 66' roll x 1/2", install on 12" centers.
Aluminum Tape	AT-1	Tape to aid heat transfer, 180 foot roll. Apply over cable along entire length of circuit.
Caution Labels	CL-1	"Electrical Heat Tracing" caution labels, 5 per package. Install every 10 feet.
Control Panels		Contact your Chromalox representative for Control Panel information.

**Note:** For PCN's, refer to the DL Series connection system accessories product data sheet.

PJ314-5  
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