

SRM/E

Self-Regulating Medium Temperature

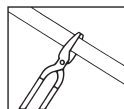
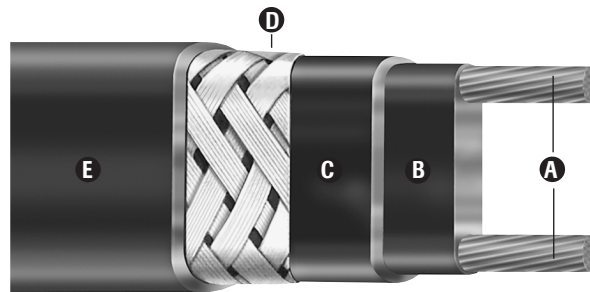
- Self-Regulating, Energy Efficient
- 14 AWG Buss Wire
- Circuit Lengths to 780 Feet
- Process Temperature Maintenance to 302°F (150°C)
- Maximum Continuous Exposure Temperature, Power Off, 420°F (215°C)
- Industrial Process Maintenance Applications
- Industrial Freeze Protection Applications
- Steam Cleanable on Process Equipment Up to 300 PSIG
- 3, 5, 8, 10, 15 and 20 W/Ft.
- 120 and 208 - 277 Volt From Stock

Description

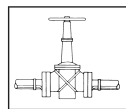
Chromalox SRM/E self-regulating heating cable provides safe, reliable heat tracing for process temperature maintenance and freeze protection of pipes, valves, tanks and similar applications. Constructed of industrial grade 14 AWG buss wire with metal braid and optional overjacketing, SRM/E ensures operating 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

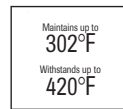
- Industrial Grade, 14 gauge buss wire has higher current capacity, allowing longer circuit lengths up to 780 feet.
- Superior matrix to buss wire bonding ensures overall operating integrity and performance.
- High output, 20 W/Ft. heating cable.
- All ratings are available from stock.



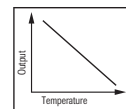
Cut to Length
in Field



Can be
Overlapped



Medium
Temperature



Self Regulating
Output

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 max. 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 downtime.
- 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 minimized.
- Chromalox termination, splice, tee and end seal kits reduce installation time.

Construction

- A Twin 14 AWG Copper Buss Wires** — Provide reliable electrical current capability.
- B 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.
- C High Temperature Fluoropolymer Jacket** — Flame retardant, electrically insulates the matrix and provides corrosion resistance.

- D Metallic Braid** — Provides additional mechanical protection in any environment and a positive ground path.
- E High Temperature Fluoropolymer Overjacket (optional)** — Corrosion resistant, flame retardant overjacket is highly effective in hostile, aqueous and chemically active environments. It also protects against abrasion and impact damage.

Approvals

Factory Mutual (FM) Approved for ordinary areas. UL Listed, CSA Certified for ordinary areas. FM Approved for hazardous (classified) areas when used with DL 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
- 8, 10, 15 and 20 Watt Rated T2D Temperature Class

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

- Class I, Div. 2, Groups A, B, C, D
- Class II, Div. 2, Groups F, G
- Rated T3¹ Temperature Class.

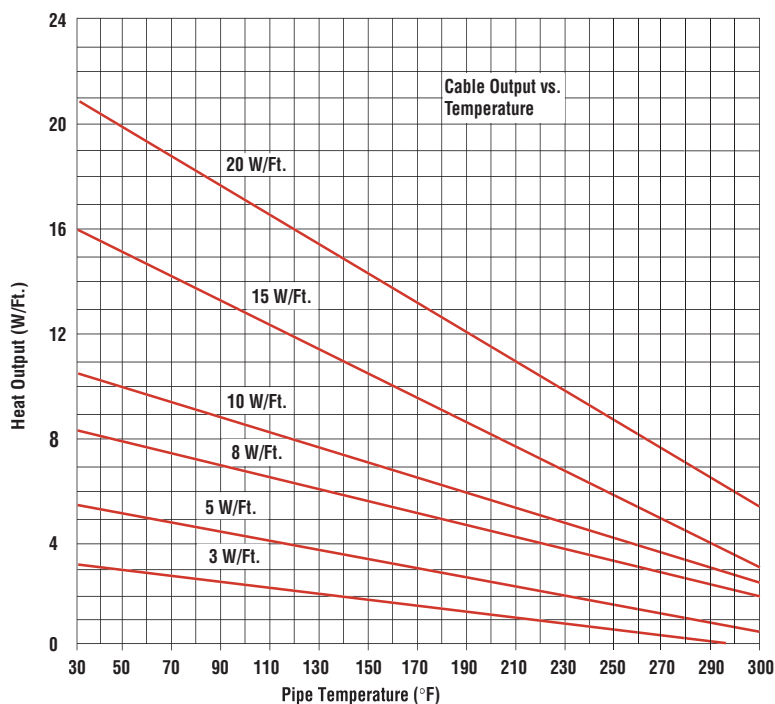
Note 1 Exception — Cable Surface Temperature shall not exceed 190°C in Class II, Div. 2, Group F; 165°C in Class II, Div. 2, Group G.

SRM/E

Self-Regulating Medium Temperature (cont'd.)



Thermal Output Ratings on Insulated Metal Pipe¹



Note 1 — Thermal output is determined per IEEE 515-1997 Standard for testing, design installation, and maintenance of electrical resistance heat tracing section 4.1.11 Method C.

Output Wattage at Alternate Voltages (W/Ft.)

Model	208V	% Change In Output	220V	% Change In Output	277V	% Change In Output
SRM/E 3	2.31	-23	2.55	-15	3.90	+23
SRM/E 5	3.85	-23	4.25	-15	6.45	+23
SRM/E 8	6.4	-20	6.88	-14	10.24	+22
SRM/E 10	8.3	-17	8.80	-12	12.50	+20
SRM/E 15	12.75	-15	13.50	-10	18.45	+19
SRM/E 20	17.6	-12	18.40	-8	24.40	+19

Circuit Breaker Selection (Max. Circuit Lengths in Ft.)

Cable Rating	50°F Start-Up (Ft.)					0°F Start-Up (Ft.)					-20°F Start-Up (Ft.)				
	15A	20A	30A	40A	50A	15A	20A	30A	40A	50A	15A	20A	30A	40A	50A
SRM/E 3-1	285	385	NR	NR	NR	275	375	385	NR	NR	265	365	385	NR	NR
SRM/E 3-2	575	770	780	NR	NR	540	750	780	NR	NR	525	740	780	NR	NR
SRM/E 5-1	180	240	360	375	NR	165	220	330	375	NR	155	210	310	375	NR
SRM/E 5-2	360	480	720	750	NR	325	430	645	750	NR	310	415	620	750	NR
SRM/E 8-1	145	190	285	325	NR	135	175	265	325	NR	130	165	250	325	NR
SRM/E 8-2	285	380	575	650	NR	255	345	520	650	NR	245	335	490	650	NR
SRM/E 10-1	95	125	190	250	NR	90	110	175	250	NR	85	100	170	245	250
SRM/E 10-2	190	255	385	490	NR	165	225	345	490	NR	155	215	330	470	490
SRM/E 15-1	70	95	145	190	210	65	85	125	165	210	60	80	120	150	210
SRM/E 15-2	145	190	290	385	420	120	175	270	360	420	115	165	260	340	420
SRM/E 20-1	60	75	115	155	160	50	65	105	140	160	45	65	100	135	160
SRM/E 20-2	115	155	230	305	350	100	135	200	270	350	90	130	195	255	335

NR = Not Required. Maximum circuit length has been reached in a smaller breaker size.

Note — Thermal magnetic circuit breakers are recommended since magnetic circuit breakers could "nuisance trip" at low temperature.

SRM/E

Self-Regulating Medium Temperature (cont'd.)

Ordering Information

Output (W/Ft.)	Volts	Model	Stock	PCN	Wt./1000' (Lbs.)
3 @ 50°F	120	SRM/E 3-1C	S	388025	80
		SRM/E 3-1CT	NS	388033	100
	208 - 277	SRM/E 3-2C	S	385490	80
5 @ 50°F		SRM/E 3-2CT	S	388068	100
	120	SRM/E 5-1C	S	388084	80
		SRM/E 5-1CT	S	388092	100
8 @ 50°F		SRM/E 5-2C	S	388113	80
		SRM/E 5-2CT	S	388121	100
	208 - 277	SRM/E 8-1C	S	388148	80
10 @ 50°F		SRM/E 8-1CT	S	388156	100
	120	SRM/E 8-2C	S	388172	80
		SRM/E 8-2CT	S	388180	100
15 @ 50°F		SRM/E 10-1C	S	388201	80
		SRM/E 10-1CT	S	388210	100
	208 - 277	SRM/E 10-2C	S	388236	80
20 @ 50°F		SRM/E 10-2CT	S	388244	100
	120	SRM/E 15-1C	S	388260	80
		SRM/E 15-1CT	S	388279	100
20 @ 50°F		SRM/E 15-2C	S	388308	80
		SRM/E 15-2CT	S	388316	100
	208 - 277	SRM/E 20-1C	S	388332	80
20 @ 50°F		SRM/E 20-1CT	S	388340	100
	120	SRM/E 20-2C	S	388367	80
		SRM/E 20-2CT	S	388375	100

To Order — Specify length, model, PCN and installation accessories.

Accessories

Accessories		DL	EL
Power Connection	Heat Trace to electrical service connection	RTPC	RT-JBC-1
Splice & Tee		RTST	RT-TST
End Seal	For terminating cable	RTES	RT-TES
Thermostat	Ambient air sensing thermostat	RTAS	B-100/B-121
	Line sensing mechanical thermostat	RTBC	E-100/E-121
	Line sensing electronic thermostat	RTSS	N/A

To Order — General Application & Installation Accessories such as tape, pipe straps, warning labels, etc., refer to the DL & EL General Application Accessories page at the end of this section.

Ordering Information

To Order — Complete the Model Number using the Matrix provided.

Model	Self-Regulating Medium Temperature		
SRM/E	Self-Regulating, Medium Temperature Enhanced Heating Cable		
	Code	Output (W/Ft.)	
	3	Three	
	5	Five	
	8	Eight	
	10	Ten	
	15	Fifteen	
	20	Twenty	
	Code	Voltage	
	1	120	
	2	208 - 277	
	Code	Braid and Overcoat Options	
	C	Plated-copper metallic braid for additional protection and ground path	
	CT	Fluoropolymer corrosion resistant overjacket over braid for hostile/corrosive environments	
SRM/E	8	8	CT Typical Model Number



More Information
is Available Online
on Heat Trace.

Bookmark Your Browser to
www.chromalox.com
and Select **Manuals**.