

Heating Cable

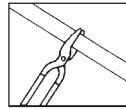
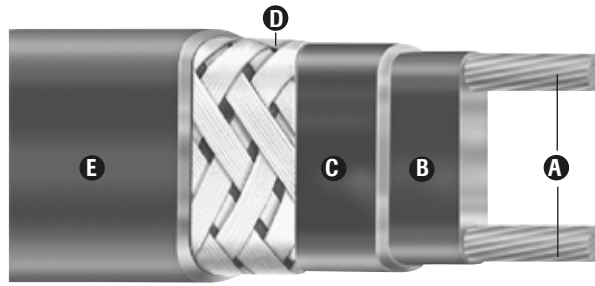
SRL Self-Regulating Low Temperature

- Self-Regulating, Energy Efficient
- 16 AWG Buss Wire
- Circuit Lengths to 660 Feet
- Process Temperature Maintenance to 150°F (65°C)
- Maximum Continuous Exposure Temperature, Power Off, 185°F (85°C)
- Industrial Freeze Protection Applications
- Freeze Protection of Fire Protection System Piping
- Field Splicing Without Disrupting Heat Output
- 3, 5, 8 and 10 W/Ft.
- 120 and 208 - 277 Volt From Stock
- Approximate Size 3/8"W x 1/8"H
- Min. Bend Radius 1-1/8"
- For Use on Metal and Plastic Pipes

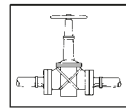
Description

Chromalox SRL self-regulating heating cable provides safe, reliable heat tracing for freeze protection of pipes, valves, tanks and similar applications. Constructed of industrial grade 16 AWG buss wire with a tinned copper braid and optional overjacketing, SRL ensures operating integrity in Div. 2 hazardous environments as well as certain corrosive industrial environments. SRL heating cable has a maximum maintenance temperature rating of 150°F (65°C).

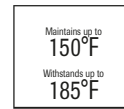
WARNING — A ground fault protection device is required by NEC to minimize the danger of fire if the heating cable is damaged or improperly installed. A minimum trip level of 30mA is recommended to minimize nuisance tripping.



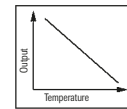
Cut to Length
in Field



Can be Single
Overlapped



Low Tempera-
ture



Self Regulating
Output

Features

- Energy efficient, self-regulating SRL uses less energy when less heat is required.
- Easy to install, SRL 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.
- SRL features lower installed cost than steam tracing, less maintenance expense and less downtime.
- SRL can be overlapped without burnout, which simplifies heat tracing of in-line process equipment such as valves, elbows and pumps.
- Because SRL is self-regulating, over-temperature conditions are minimized.
- Chromalox termination, splice, tee and end seal kits reduce installation time.

Construction

- A Twin 16 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 Polyolefin Jacket** — Flame retardant, electrically insulates the matrix and buss wires and provides resistance to water and some inorganic chemical solutions.
- D Tinned Copper Braid** — Provides additional mechanical protection in any environment and a positive ground path.


- E High Temperature Fluoropolymer or TPR Overjacket (optional)** — Corrosion resistant, flame retardant overjacket is highly effective in many environments. TPR coatings protect against certain inorganic chemical solutions. Fluoropolymer coatings are used for exposure to organic or corrosive solutions. These coatings also protect against abrasion and impact damage.

Approvals

ATEX and IECEx Exe IIGb, Factory Mutual (FM) Approved for ordinary areas. UL Listed, CSA Certified for ordinary areas. UL listed for freeze protection of fire protection system piping. FM Approved for hazardous (classified) areas when used with U Series, DL and EL 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 fillings)
- 3 Watt Rated T6 Temperature Class
- 5 and 8 Watt Rated T5 Temperature Class
- 10 Watt Rated T4A Temperature Class.

CSA Certified for hazardous areas when used with DL, EL or U Series accessories:

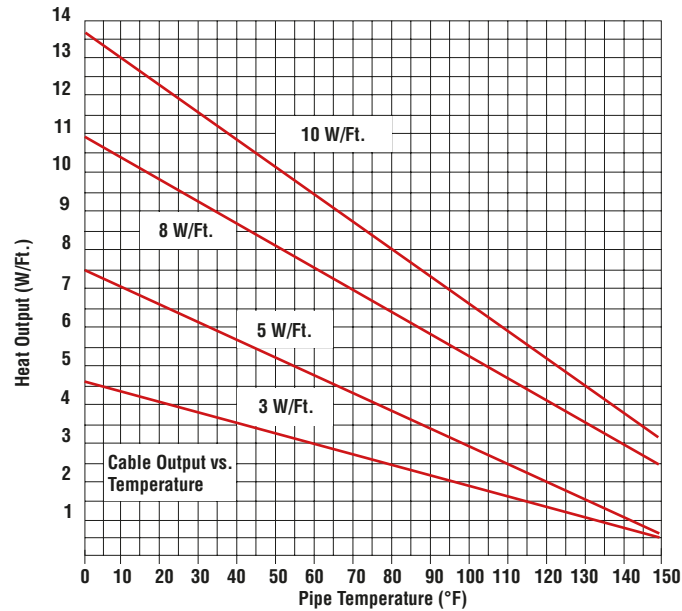
- Class I, Div. 2, Groups A, B, C, D
- Class II, Div. 2, Groups F, G.
- ATEX and IECEx Exe IIGb
-  IIG Exe II

Heating Cable

SRL Self-Regulating Low Temperature (*cont'd.*)

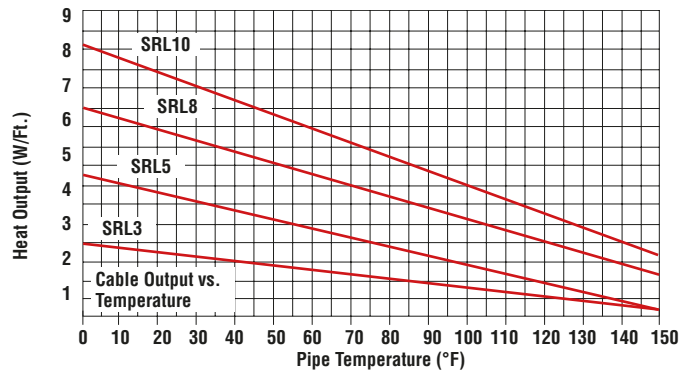


Thermal Output Ratings on Insulated Metal Pipe'



Note 1 — Thermal output is determined per IEEE 515-2004 Standard for testing, design installation, and maintenance of electrical resistance heat tracing section 4.1.11 Method C.

Thermal Output Ratings on Plastic Pipe with Aluminum Tape



Output Wattage at Alternate Voltages (W/Ft.)

Model	208V	% Change In Output	220V	% Change In Output	277V	% Change In Output
SRL 3	2.4	-20	2.6	-13	3.4	+15
SRL 5	4.1	-18	4.5	-10	5.6	+13
SRL 8	6.88	-14	7.28	-9	8.96	+12
SRL 10	8.7	-13	9.2	-8	11.1	+10

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.)					
	10A	15A	20A	25A	30A	40A	10A	15A	20A	25A	30A	40A	10A	15A	20A	25A	30A	40A
SRL3-1C	205	305	360	NR	NR	NR	135	200	270	330	360	NR	120	185	245	300	360	NR
SRL3-2C	400	600	660	NR	NR	NR	275	415	555	660	NR	NR	245	370	495	600	660	NR
SRL5-1C	125	185	250	270	NR	NR	90	135	180	225	270	NR	80	120	160	205	245	270
SRL5-2C	250	375	505	540	NR	NR	180	270	360	450	540	NR	160	245	325	405	490	540
SRL8-1C	100	150	200	215	NR	NR	70	110	145	180	215	NR	65	100	130	165	200	210
SRL8-2C	185	285	375	420	NR	NR	135	200	265	335	395	420	120	175	235	300	350	420
SRL10-1C	60	95	130	160	180	NR	50	80	105	130	155	180	45	70	95	120	140	180
SRL10-2C	100	160	210	260	315	360	80	125	170	210	255	340	75	120	160	195	240	320

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.

Heating Cable

SRL

Self-Regulating Low Temperature *(cont'd.)*

Ordering Information

Output (W/Ft.)	Volts	Model	Stock	PCN	Wt./1000' (Lbs.)
3 @ 50°F	120	SRL 3-1C	S	382678	53
		SRL 3-1CT	S	383400	66
		SRL 3-1CR	S	382731	64
	208 - 277	SRL 3-2C	S	382686	53
		SRL 3-2CT	S	383419	66
		SRL 3-2CR	S	382740	64
5 @ 50°F	120	SRL 5-1C	S	382694	53
		SRL 5-1CT	S	383443	66
		SRL 5-1CR	S	382758	64
	208 - 277	SRL 5-2C	S	382707	53
		SRL 5-2CT	S	383451	66
		SRL 5-2CR	S	382766	64
8 @ 50°F	120	SRL 8-1C	S	382555	53
		SRL 8-1CT	S	383460	66
		SRL 8-1CR	S	382598	64
	208 - 277	SRL 8-2C	S	382563	53
		SRL 8-2CT	S	383478	66
		SRL 8-2CR	S	382600	64
10 @ 50°F	120	SRL 10-1C	S	382820	53
		SRL 10-1CT	S	383486	66
		SRL 10-1CR	S	382846	64
	208 - 277	SRL 10-2C	S	382838	53
		SRL 10-2CT	S	383494	66
		SRL 10-2CR	S	382854	64

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

Accessories

Accessories		U Series	DL	EL
Power Connection	Heat trace to electrical service connection	UPC	RTPC	SSK
Splice & Tee		UMC	RTST	RT-RST
End Seal	For terminating cable	UES	RTES	RT-RES
Lighted End Seal		USL	RTST-SL	N/A
Thermostat	Ambient air sensing thermostat	UAS	RTAS	THL/TXL
	Line sensing mechanical thermostat	UBC	RTBC	THR/TXR

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

Ordering Information

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

Contact your Local Chromalox Sales office for monitor wire option.

Model Self-Regulating Low Temperature

SRL Self-Regulating, Low Temperature Heating Cable

Code Output (W/Ft.)

3	Three
5	Five
8	Eight
10	Ten

Code Voltage

1	120
2	208 - 277

Code Braid and Overcoat Options

C	Tin-Plated copper metallic braid for additional protection and ground path
CT	Fluoropolymer corrosion resistant overjacket over braid for hostile/corrosive environments
CR	TPR overjacket over braid for protection against certain inorganic chemical solutions

SRL 5 1 C Typical Model Number



More Information is Available Online on Heat Trace.

Bookmark Your Browser to

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and Select Manuals.

SRM/E

Self-Regulating Medium Temperature

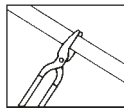
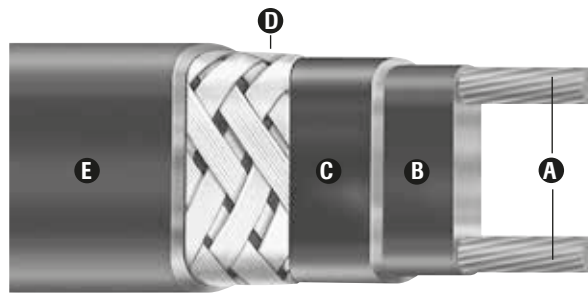
- Self-Regulating, Energy Efficient
- 16 AWG Buss Wire
- Circuit Lengths to 750 Feet
- Process Temperature Maintenance to 302°F (150°C)
- Maximum Continuous Exposure Temperature, Power Off, 420°F (215°C)
- Industrial Process Maintenance Applications
- Industrial Freeze Protection Applications
- Freeze Protection of Fire Protection System Piping
- Steam Cleanable on Process Equipment Up to 300 PSIG
- 5, 8, 10, 15 and 20 W/Ft.
- 120 and 208 - 277 Volt From Stock
- Approximate Size 3/8"W x 1/8"H
- Minimum Bend Radius 1-1/8"
- For Use on Metallic Pipes Only

Description

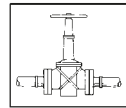
Chromalox SRM/E self-regulating heating cable provides safe, reliable heat tracing for process temperature maintenance and freeze protection of pipes, valves, tanks and similar applications. Constructed of industrial grade 16 AWG buss wire with metal braid and optional overjacketing, SRM/E ensures operating 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, 16 gauge buss wire has higher current capacity, allowing longer circuit lengths up to 750 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.



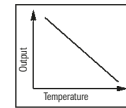
Cut to Length
in Field



Can be
Overlapped



Medium Tem-
perature



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 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 16 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.
- D** **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.

WARNING — A ground fault protection device is required by NEC to minimize the danger of fire if the heating cable is damaged or improperly installed. A minimum trip level of 30mA is recommended to minimize nuisance tripping.

Approvals

ATEX and IECEx Exe IIGb, Factory Mutual (FM) Approved for ordinary areas. UL Listed, CSA Certified for ordinary areas. UL listed for freeze protection of fire protection system piping. FM Approved for hazardous (classified) areas when used with U Series, DL and EL 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)
- 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 DL and U Series accessories:
- Class I, Div. 2, Groups A, B, C, D
- Class II, Div. 2, Groups F, G
- Rated T3¹ Temperature Class.
- ATEX and IECEx Exe IIGb
- IIG Exe II

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.

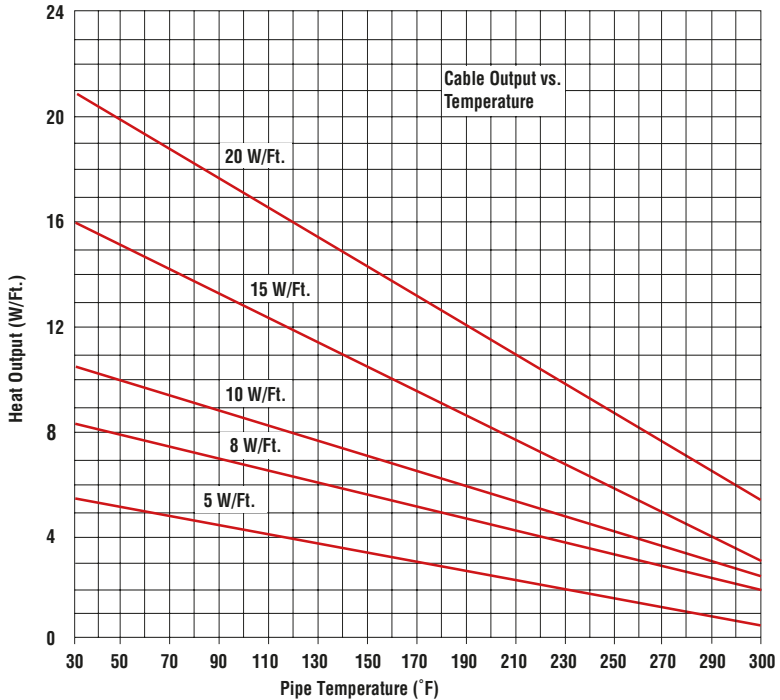
Heating Cable

SRM/E

Self-Regulating Medium Temperature (cont'd.)



Thermal Output Ratings on Insulated Metal Pipe¹



Note 1 — Thermal output is determined per IEEE 515-2004 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 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 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.

SELF-REGULATING

Heating Cable

SRM/E

Self-Regulating Medium Temperature

(cont'd.)

Ordering Information

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

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

Accessories

Accessories		U Series	DL	EL
Power Connection	Heat trace to electrical service connection	UPC	RTPC	SSK
Splice & Tee		UMC	RTST	RT-RST
End Seal	For terminating cable	UES	RTES	RT-RES
Lighted End Seal		USL	RTST-SL	N/A
Thermostat	Ambient air sensing thermostat	UAS	RTAS	THL/TXL
	Line sensing mechanical thermostat	UBC	RTBC	THR/TXR

To Order — General Application & Installation Accessories such as tape, pipe straps, warning labels, etc., refer to the U Series, 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.)
5	Five
8	Eight
10	Ten
15	Fifteen
20	Twenty
Code	Voltage
1	120
2	208 - 277
Code	Braid and Overcoat Options
C	Tin-Plated copper metallic braid for additional protection and ground path
CT	Fluoropolymer corrosion resistant overjacket over braid for hostile/corrosive environments
SRM/E 8	1 CT Typical Model Number



More Information is Available Online on Heat Trace.

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