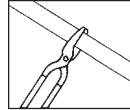
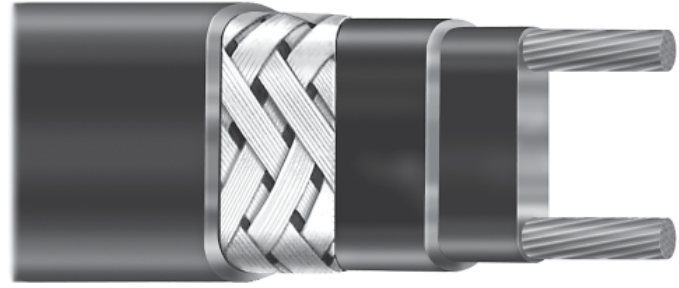
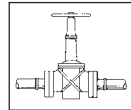


Self-Regulating Medium Temperature Heating Cable



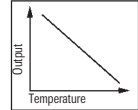
Cut to Any Length in Field



Can be Single Overlapped



Medium Temperature



Self Regulating

- **Self-Regulating, Energy Efficient**
- **Process Temperature Maintenance to 302°F (150°C)**
- **Maximum Continuous Exposure Temperature (Power Off) 420°F (215°C)**
- **Available in 5, 8, 10, 15 and 20 Watts per Foot**
- **120 and 208-277 Volts Available**
- **Circuit Lengths to 780 Feet**
- **Hazardous Division 1 Locations**

Description

Chromalox HSRM 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 overjacketing, HSRM ensures operating integrity in Division 1 hazardous locations. 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.

Features

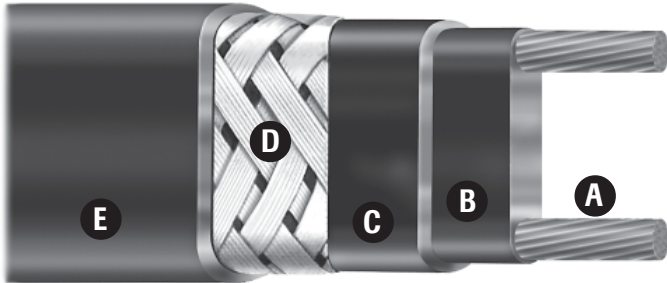
- **Energy Efficient** - Uses less energy when less heat is required.
- **Easy to Install** - Can be cut to length in the field (up to maximum circuit length)
- **Lower Costs** - Features lower installed cost than steam tracing, less maintenance expense, less downtime. Field splices can be easily performed with no scrap or wasted cold sections.
- **Improved Reliability** - Can be single overlapped without burnout. This simplifies heat tracing of in-line process equipment such as valves, elbows and pumps. Because cable is self-regulating overtemperature conditions are virtually impossible.



Chromalox[®]
PRECISION HEAT AND CONTROL

HSRM – Self-Regulating Medium Temperature Heating Cable

Construction



- A. Twin 14 AWG Copper Buss Wires**
Provide reliable electric current capability.
- B. Semiconductive Polymer Core Matrix**
“Self-Regulating” component of cable. Core’s electrical resistance varies with temperature. As process temperature drops the core’s heat output increases; as process temperature rises, the heat output decreases.
- C. Fluoropolymer Jacket**
Flame retardant, electrically insulates the matrix and buss wires. Provides corrosion resistance.
- D. Tinned Copper Braid**
Provides additional mechanical protection in any environment. Provides positive ground path.
- E. Fluoropolymer Overjacket**
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 the following areas when used with Chromalox HL accessories.

Class I, Division 1 Groups B, C, D (gases, vapors)
Class II, Division 1 Groups E, F, G (combustible dust)
Class III, Division 1 (easily ignitable fibers and filings)
5 and 8 Watt rated T3C Temperature Class
10 Watt rated T3A Temperature Class
15 and 20 Watt rated T2C Temperature Class

CSA - CSA approved for the following areas when used with Chromalox HL accessories.

Class I, Division I Groups B, C, D
Class II, Division I Groups E, F, G
5 and 8 Watt rated T3C Temperature Class
10 Watt rated T3A Temperature Class
15 and 20 Watt rated T2C Temperature Class

Applications

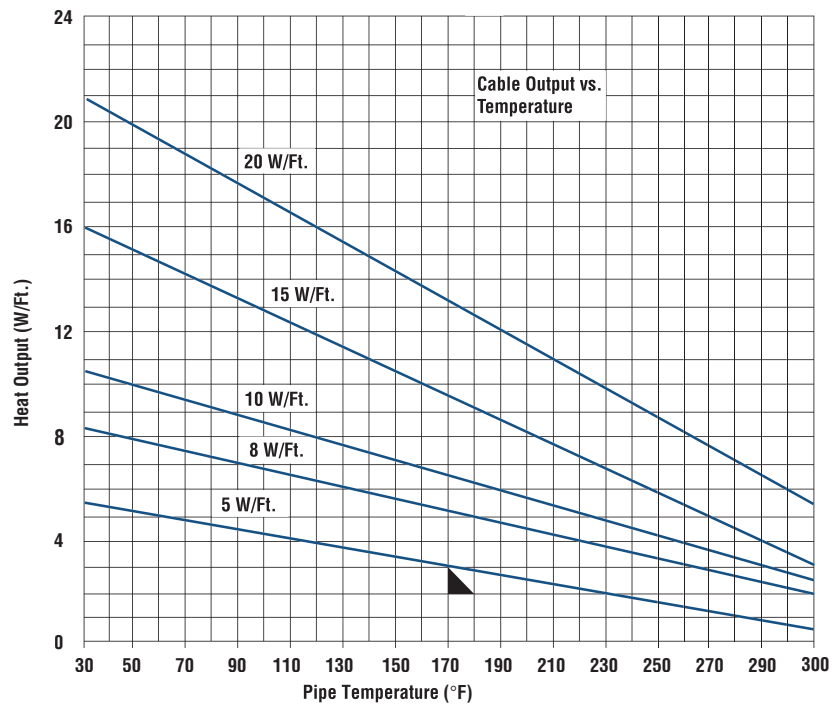
- Process Temperature Maintenance
- Hydrocarbon and Chemical Product Piping
- Freeze Protection of Periodically Steam-Cleaned Pipes
- Fluid Flow and Viscosity Maintenance

HSRM – Self-Regulating Medium Temperature Heating Cable

Product Specifications

Model Number	T-Rating (W/ft.)	Output @ 50°F (Vac)	Nominal Voltage
HSRM5-1CT	T3C	5	120
HSRM5-2CT	T3C	5	208-277
HSRM8-1CT	T3C	8	120
HSRM8-2CT	T3C	8	208-277
HSRM10-1CT	T3A	10	120
HSRM10-2CT	T3A	10	208-277
HSRM15-1CT	T2C	15	120
HSRM15-2CT	T2C	15	208-277
HSRM20-1CT	T2C	20	120
HSRM20-2CT	T2C	20	208-277

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.

Self-Regulating Medium Temperature Heating Cable – HSRM

Output Wattage at Alternate Voltages (W/ft.) @ 50°F

Model Number	208 Volts	220 Volts	277 Volts
HSRM5-2CT	3.85	4.25	6.45
HSRM8-2CT	6.40	6.88	10.24
HSRM10-2CT	8.30	8.80	12.50
HSRM15-2CT	12.75	13.50	18.45
HSRM20-2CT	17.60	18.40	24.40

Heating Cable System Design

To determine cable rating and length of cable needed, please refer to the Chromalox Design Guide for Heat Tracing Systems (PJ 304).

Circuit protection depends on the breaker size being used and the start-up temperature. The National Electric Code (NEC 1999) requires the use of ground fault protection breakers for heating cable. The following chart shows the maximum circuit length for a given breaker rating. To determine the number of circuits required for each pipe, divide the total cable length needed (as determined by using the Chromalox Design Guide for Heat Tracing - PJ 304) by the maximum circuit length found in the chart. Round up to the next higher number.

Maximum Circuit Length (ft.) by Start-Up Temperature (°F) and Breaker Size (Amps)

Cable Rating	Circuit Breaker	50°F Start-Up					0°F Start-Up					-20°F Start-Up				
		15A	20A	30A	40A	50A	15A	20A	30A	40A	50A	15A	20A	30A	40A	50A
HSRM5-1CT		180	240	360	375	NR	165	220	330	375	NR	155	210	310	375	NR
HSRM5-2CT		360	480	720	750	NR	325	430	645	750	NR	310	415	620	750	NR
HSRM8-1CT		145	190	285	325	NR	135	175	265	325	NR	130	165	250	325	NR
HSRM8-2CT		285	380	575	650	NR	255	345	520	650	NR	245	335	490	650	NR
HSRM10-1CT		95	125	190	250	NR	90	110	175	250	NR	85	100	170	245	250
HSRM10-2CT		190	255	385	490	NR	165	225	345	490	NR	155	215	330	470	490
HSRM15-1CT		70	95	145	190	210	65	85	125	165	210	60	80	120	150	210
HSRM15-2CT		145	190	290	385	420	120	175	270	360	420	115	165	260	340	420
HSRM20-1CT		60	75	115	155	160	50	65	105	140	160	45	65	100	135	160
HSRM20-2CT		115	155	230	305	350	100	135	200	270	350	90	130	195	255	335

Thermal magnetic circuit breakers are recommended since magnetic circuit breakers could “nuisance trip” at low temperature. NR = Not Required. Maximum circuit length has been reached in a smaller breaker size.

HSRM – Self-Regulating Medium Temperature Heating Cable

PJ931-3
161-562430-001
PDS HSRM
FEBRUARY 05