

# Heating Cable

## HSRL Self-Regulating Low Temperature

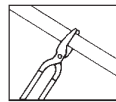
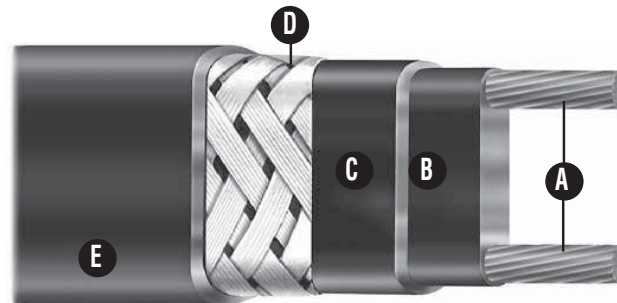
- Self-Regulating, Energy Efficient
- 16 AWG Buss Wire
- Circuit Lengths to 660 Feet
- Process Temperature Maintenance to 150°F (65°C)
- Maximum Continuous Exposure Temperature, Power Off, 185°F (85°C)
- Freeze Protection of Fire Protection System Piping
- Available in 3, 5, 8, and 10 Watts per Foot
- 120 and 208-277 Volts Available
- Division 1 Hazardous Locations
- Approximate Size 3/8"W x 1/8"H
- Minimum Bend Radius 1-1/8"
- For Use on Metal & Plastic Pipes

### Description

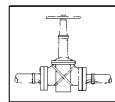
Chromalox HSRL self-regulating heating cable provides safe, reliable heat tracing for freeze protection of pipes, valves, tanks and similar applications. Constructed of industrial grade 16 AWG buss wire with a tinned copper braid and fluoropolymer overjacket, HSRL ensures operating integrity in Div. 1 hazardous environments. HSRL heating cable has a maximum maintenance temperature rating of 150°F (65°C) and a maximum exposure temperature of 185°F (85°C)

**Note:** Due to the nature of Division 1 hazardous location applications consultation with a factory representative is required.

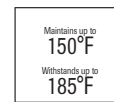
**WARNING** — A ground fault protection device is required by NEC to minimize the danger of fire if the heating cable is damaged or improperly installed. A minimum trip level of 30 mA is recommended to minimize nuisance tripping.



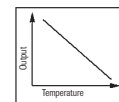
Cut to Length  
in Field



Can be Single  
Overlapped



Low Temperature



Self Regulating  
Output

### Features

- Energy efficient, self-regulating HSRL uses less energy when less heat is required.
- Easy to install, HSRL can be cut to any length (up to max circuit length) in the field.
- HSRL features lower installed cost than steam tracing, less maintenance expense and less down time.
- HSRL can be overlapped without burnout, which simplifies heat tracing of in-line process equipment such as valves, elbows and pumps.
- Chromalox HL Connection Kits reduce installation time.

### Construction

- **A Twin 16 AWG Copper Buss Wires**— Provide reliable electric 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 Overjacket**— Corrosion resistant, flame retardant overjacket is highly effective in many environments. Protects against exposure to organic or corrosive solutions. The overjacket also protects against abrasion and impact damage.

### Approvals

#### FM Approved

- Class I, Division 1, Groups B, C, D
- Class II, Division 1, Groups E, F, G
- Class III, Division 1
- 3 Watt rated T6 temperature class
- 5 and 8 Watt rated T5 temperature class
- 10 Watt rated T4A temperature class

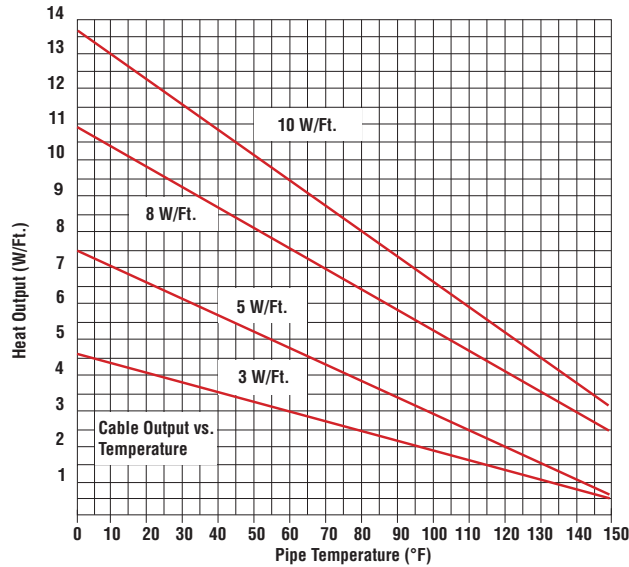
#### CSA Approved

- Class I, Division 1, Groups B, C, D
- Class II, Division 1, Groups E, F, G
- 3 Watt rated T6 temperature class
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# Heating Cable

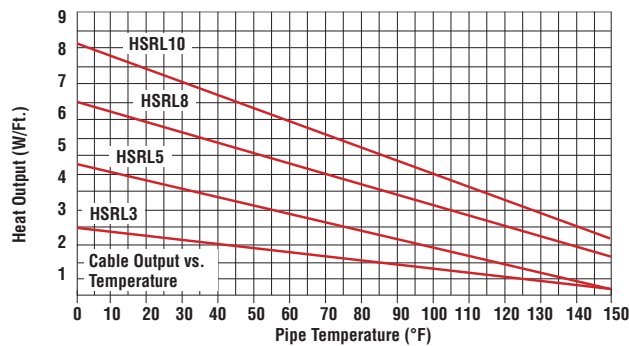
## HSRL Self-Regulating Low Temperature *(cont'd.)*

*Thermal Output Ratings on Insulated Metal Pipe<sup>1</sup>*



**Note 1** — Thermal output is determined per IEEE 515-2011 Standard for testing, design installation, and maintenance of electrical resistance heat tracing section 4.1.1 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
HSRL 3	2.4	-20	2.6	-13	3.4	+15
HSRL 5	4.1	-18	4.5	-10	5.6	+13
HSRL 8	6.88	-14	7.28	-9	8.96	+12
HSRL 10	8.7	-13	9.2	-8	11.1	+10

SELF-REGULATING

*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
HSRL3-1CT	205	305	360	NR	NR	NR	135	200	270	330	360	NR	120	185	245	300	360	NR
HSRL3-2CT	400	600	660	NR	NR	NR	275	415	555	660	NR	NR	245	370	495	600	660	NR
HSRL5-1CT	125	185	250	270	NR	NR	90	135	180	225	270	NR	80	120	160	205	245	270
HSRL5-2CT	250	375	505	540	NR	NR	180	270	360	450	540	NR	160	245	325	405	490	540
HSRL8-1CT	100	150	200	215	NR	NR	70	110	145	180	215	NR	65	100	130	165	200	210
HSRL8-2CT	185	285	375	420	NR	NR	135	200	265	335	395	420	120	175	235	300	350	420
HSRL10-1CT	60	95	130	160	180	NR	50	80	105	130	155	180	45	70	95	120	140	180
HSRL10-2CT	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.

# Heating Cable

## HSRL

Self-Regulating  
Low Temperature  
(cont'd.)

### Ordering Information

Output (W/Ft.)	Volts	Model	Stock	PCN	Wt./1000' (Lbs.)
3 @ 50°F	120	HSRL 3-1CT	S	382070	66
	208 - 277	HSRL 3-2CT	S	382061	66
5 @ 50°F	120	HSRL 5-1CT	S	382053	66
	208 - 277	HSRL 5-2CT	S	382045	66
8 @ 50°F	120	HSRL 8-1CT	S	382037	66
	208 - 277	HSRL 8-2CT	S	382029	66
10 @ 50°F	120	HSRL 10-1CT	S	382010	66
	208 - 277	HSRL 10-2CT	S	382022	66

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

### Accessories

	Description	Model
Power Connection	Heat trace to electrical service connection	HL-PC
T- Splice	Electrical connection for 3 cables	HL-T
In-Line Splice	Electrical connection for 2 cables	HL-S
End Seal	For terminating cable	HL-ES
Thermostat	Ambient air sensing thermostat	TXL
	Line sensing mechanical thermostat	TXR
		E-122

— Please refer to HL Connection Accessories page

### Ordering Information

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

Model	Hazardous Location Self-Regulating Low Temperature		
HSRL	Self-Regulating, Low Temperature Heating Cable		
	<b>Code</b>	<b>Output (W/Ft.)</b>	
	3	Three	
	5	Five	
	8	Eight	
	10	Ten	
	<b>Code</b>	<b>Voltage</b>	
	1	120	
	2	240	
	<b>Code</b>	<b>Standard Braid &amp; Overjacket</b>	
	CT	Tinned copper metallic braid for ground path fluoropolymer corrosion resistant overjacket. Specifically tested for Division I environments.	
HSRL	3	1	CT
	<b>Typical Model Number</b>		

**Note 1** — Note: Due to the nature of Division 1 hazardous location applications consultation with a factory representative is required.