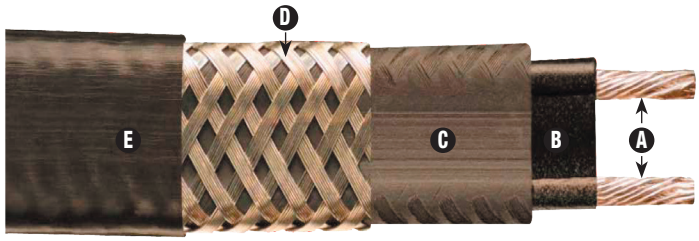
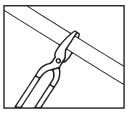
CPR
Self-Regulating Heat Trace



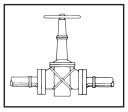
- Self-Regulating, Energy Efficient
- Process Temperature Maintenance to 150˚F (65˚C) (Power On)
- Max. Continuous Exposure Temp. 185°F (85˚C) (Power Off)
- CPR Commercial Applications
- Pipe Freeze Protection
  - Potable & Non-Potable Piping
  - Sanitary & Storm Piping
  - Fire Sprinkler Piping
- Flow Maintenance
  - Greasy Waste Piping
  - Diesel Fuel Piping
- Roof & Gutter De-icing
- Freezer Frost Heave Prevention
- Floor Warming
- TPR or TPE Overjackets
- Circuit Lengths, Up to 660 Ft.
- 3, 5, 8, 10 and 15 W/Ft.
- 120, 208 - 277 Volt From Stock
- Approx. Size 0.47"W x 0.20"H
- Minimum Bend Radius 1-1/8"
- For Use on Metal Pipes, Plastic Pipes, Roofs, and Gutters

Per IEEE 515.1 for Commercial Heating Device installation Type A, B, C or D including on insulated surfaces, outdoor exposed areas, installation with embedded trace heating and installation with trace heater inside conduit or piping.

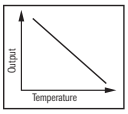
WARNING — A ground fault protection device is required by NEC to minimize the danger of fire if the heating cable is damaged or improperly installed. A minimum trip level of 30mA is recommended to minimize nuisance tripping.



Cut to Length in Field



Can be Single Overlapped



Self Regulating Output

Description

Chromalox CPR Cable is a multi-purpose heating cable designed for commercial pipe tracing, roof & gutter deicing, embedded floor warming, and frost heave prevention. Chromalox's CPR Cable is constructed of a self-regulating polymer core that varies its heat output based on sensed temperature along its entire length. It can be easily cut to length, spliced, tee-branched and terminated to more easily follow piping networks. In addition to insulated surfaces, Chromalox's CPR Heating Cable can be used on roofs and in gutters to prevent Ice Dams and provide a path for the melt water to excavate the roof surface.

Chromalox's CPR Heating Cable can be placed in conduit and embedded in concrete to prevent frost heave or placed onto concrete slabs for supplemental comfort heat. Chromalox's CPR cable can even be placed inside of conduit for applications making replacement of the heating cable possible. Chromalox's CPR is truly a versatile heating cable solution.

Features

- Energy efficient, self-regulating CPR uses less energy when less heat is required.
- Easy to install, CPR 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.
- CPR can be overlapped without burnout, which simplifies heat tracing of in-line process equipment such as valves, elbows and pumps.
- Because CPR is self-regulating, overtemperature conditions are minimized.
- Chromalox termination, splice, tee and end seal kits reduce installation time.

Construction

A **Twin Nickel Plated 16 AWG Copper Buss Wires —** Provide high electrical current capability.

B **Semiconductive Polymer Core Matrix —** its electrical resistance varies with temperature. As process temperature drops, the core's heat output increases; conversely, as process temperature rises, the heat output decreases.

C **Polyolefin Jacket —** Flame retardant, electrically insulates the matrix and buss wires. Also provides resistance to water and some inorganic chemical solutions.

D **Tinned Copper Braid —** The braid covering the jacket provides additional mechanical protection in any environment and a positive ground path.

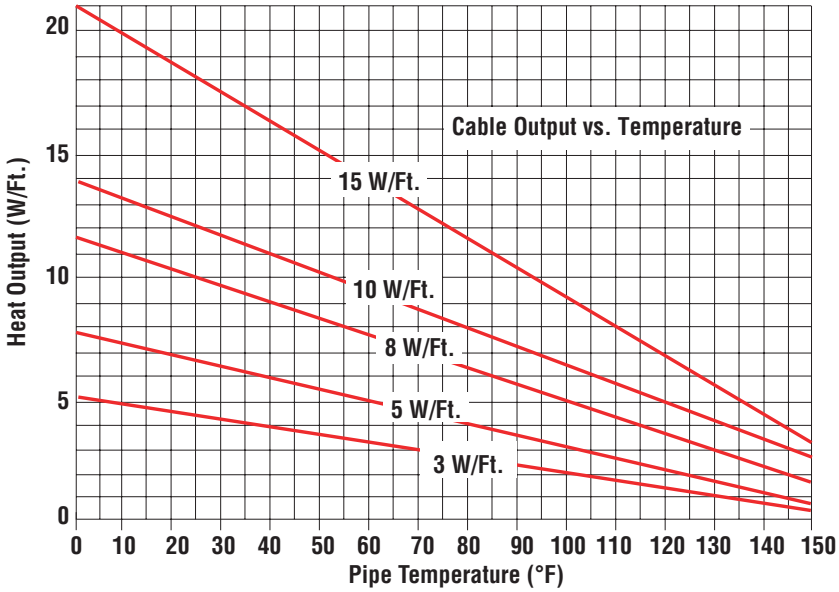
E **High Temperature Fluoropolymer or TPR Overjacket —** Corrosion resistant, flame retardant overjacket is highly effective in many environments. TPR coatings protect against certain inorganic chemical solutions. Fluoropolymer coatings are used for exposure to organic or corrosive solutions. These coatings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

Approvals

Ordinary areas, roof and gutter, fire supression system piping and grease waste flow maintenance. Note: For fire sprinkler supply and branch line piping freeze protection, CPR is certified by UL for metallic but not plastic piping.

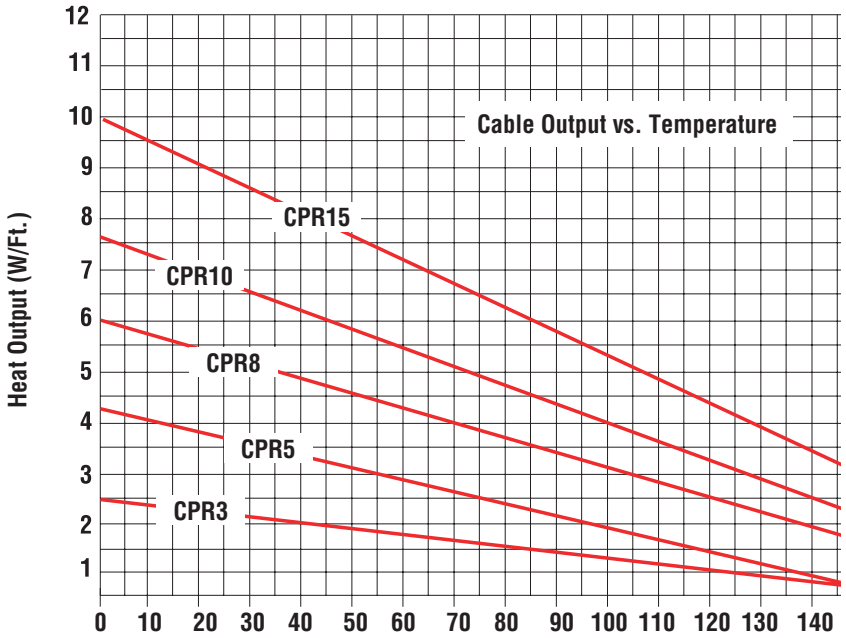
CPR
Self-Regulating Heat Trace *(cont'd.)*

Thermal Output Ratings on Insulated Metal Pipe[1]



Note 1 — Thermal output is determined per IEEE 515-2011 Standard for testing, design installation, and maintenance of electrical resistance heat tracing section 4.1.11 Method C.

Thermal Output Ratings on Plastic Pipe with Aluminum Tape



CPR Heating Cable in Snow - Output W/Ft

Cable Model	Rated @ 50˚F in Air			Rated @ 32˚F in Snow & Ice		
	208V	240V	277V	208V	240V	277V
CPR5-2	4.10	5.00	5.60	7.57	8.80	11.50
CPR8-2	6.88	8.00	8.96	15.65	18.20	21.90
CPR10-2	8.70	10.00	11.10	20.88	24.00	28.00
CPR15-2	13.20	15.00	16.20	28.42	32.30	36.10

Output Wattage at Alternate Voltages (W/Ft.)

Model	208V	% Change In Output	220V	% Change In Output	277V	% Change In Output
CPR 3	2.4	-20	2.6	-13	3.4	+15
CPR 5	4.1	-18	4.5	-10	5.6	+13
CPR 8	6.88	-14	7.28	-9	8.96	+12
CPR 10	8.7	-13	9.2	-8	11.1	+10
CPR 15	13.2	-12	13.95	-7	16.2	+8

*For fire sprinkler supply and branch line piping freeze protection, CPR is certified by UL for metallic but not plastic piping.

CPR

Self-Regulating Heat Trace *(cont'd.)*

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

Cable Rating	65˚F Start-up (Ft.)				50˚F Start-up (Ft.)			
	15 Amp	20 Amp	30 Amp	40 Amp	15 Amp	20 Amp	30 Amp	40 Amp
CPR3-1	350	440	440	440	305	360	360	360
CPR3-2	680	800	825	825	600	660	660	660
CPR5-1	205	270	300	300	185	250	270	270
CPR5-2	410	550	620	620	375	505	540	540
CPR8-1	165	220	240	240	150	200	215	215
CPR8-2	310	425	480	480	285	375	420	420
CPR10-1	105	140	190	190	95	130	180	180
CPR10-2	210	230	345	420	160	210	315	360
CPR15-1	70	90	145	190	65	85	130	175
CPR15-2	105	150	220	280	100	140	210	265

GREASE FLOW MAINTENANCE

Cable Rating	40˚F Start-up (Ft.)				20˚F Start-up (Ft.)				0˚F Start-up (Ft.)				-20˚F Start-up (Ft.)				-40˚F Start-up (Ft.)			
	15 Amp	20 Amp	30 Amp	40 Amp	15 Amp	20 Amp	30 Amp	40 Amp	15 Amp	20 Amp	30 Amp	40 Amp	15 Amp	20 Amp	30 Amp	40 Amp	15 Amp	20 Amp	30 Amp	40 Amp
CPR3-1	265	350	360	360	220	290	360	360	200	266	360	360	180	238	340	350	160	210	320	340
CPR3-2	525	660	660	660	440	585	660	660	415	553	660	660	368	489	628	643	320	425	595	625
CPR5-1	170	226	270	270	150	200	270	270	135	180	270	270	120	160	240	248	105	140	210	225
CPR5-2	340	450	540	540	300	400	540	540	270	360	540	540	243	323	485	525	215	286	430	510
CPR8-1	135	180	215	215	115	153	215	215	110	145	215	215	98	129	193	205	85	113	170	195
CPR8-2	270	330	420	420	235	310	420	420	200	265	395	420	188	238	355	410	175	210	315	400
CPR10-1	90	120	180	180	85	113	170	180	80	90	135	180	73	88	130	175	65	85	125	170
CPR10-2	150	200	300	360	140	185	280	360	125	166	250	333	118	156	233	313	110	145	215	293
CPR15-1	60	80	120	160	55	73	110	146	53	70	105	140	49	65	98	130	45	60	90	120
CPR15-2	95	125	190	250	90	110	180	230	75	100	150	200	70	93	140	187	65	86	130	173

PIPE FREEZE PROTECTION

Cable Rating	0˚F Start-up (Ft.)				-20˚F Start-up (Ft.)				-40˚F Start-up (Ft.)			
	15 Amp	20 Amp	30 Amp	40 Amp	15 Amp	20 Amp	30 Amp	40 Amp	15 Amp	20 Amp	30 Amp	40 Amp
CPR3-1	200	266	360	360	180	238	340	350	160	210	320	340
CPR3-2	415	553	660	660	368	489	628	643	320	425	595	625
CPR5-1	135	180	270	270	120	160	240	248	105	140	210	225
CPR5-2	270	360	540	540	243	323	485	525	215	286	430	510
CPR8-1	110	145	215	215	98	129	193	205	85	113	170	195
CPR8-2	200	265	395	420	188	238	355	410	175	210	315	400
CPR10-1	80	90	135	180	73	88	130	175	65	85	125	170
CPR10-2	125	166	250	333	118	156	233	313	110	145	215	293

FROST HEAVE PREVENTION

Cable Rating	40˚F Start-up (Ft.)				20˚F Start-up (Ft.)				0˚F Start-up (Ft.)				-40˚F Start-up (Ft.)			
	15 Amp	20 Amp	30 Amp	40 Amp	15 Amp	20 Amp	30 Amp	40 Amp	15 Amp	20 Amp	30 Amp	40 Amp	15 Amp	20 Amp	30 Amp	40 Amp
CPR3-1	265	350	360	360	220	290	360	360	200	266	360	360	160	210	320	340
CPR3-2	525	660	660	660	440	585	660	660	415	553	660	660	320	425	595	625
CPR5-1	170	226	270	270	150	200	270	270	135	180	270	270	105	140	210	225
CPR5-2	340	450	540	540	300	400	540	540	270	360	540	540	215	286	430	510
CPR8-1	135	180	215	215	115	153	215	215	110	145	215	215	85	113	170	195
CPR8-2	270	330	420	420	235	310	420	420	200	265	395	420	175	210	315	400
CPR10-1	90	120	180	180	85	113	170	180	80	90	135	180	65	85	125	170
CPR10-2	150	200	300	360	140	185	280	360	125	166	250	333	110	145	215	293

ROOF & GUTTER

CPR
Self-Regulating Heat Trace *(cont'd.)*

Ordering Information

Output (W/Ft.)	Volts	Model	Stock	PCN	Wt./1000' (Lbs.)
3 @ 50˚F	120	CPR 3-1CT	S	512209	66
		CPR 3-1CR	S	512102	64
	208-277	CPR 3-2CT	S	512217	66
		CPR 3-2CR	S	512110	64
5 @ 50˚F	120	CPR 5-1CT	S	512225	66
		CPR 5-1CR	S	512129	64
	208-277	CPR 5-2CT	S	512233	66
		CPR 5-2CR	S	512137	64
8 @ 50˚F	120	CPR 8-1CT	S	512241	66
		CPR 8-1CR	S	512145	64
	208-277	CPR 8-2CT	S	512250	66
		CPR 8-2CR	S	512153	64
10 @ 50˚F	120	CPR 10-1CT	S	512268	66
		CPR 10-1CR	S	512161	64
	208-277	CPR 10-2CT	S	512276	66
		CPR 10-2CR	S	512170	64
15 @ 50˚F	120	CPR 15-1CT	S	512284	66
		CPR 15-1CR	S	512188	64
	208-277	CPR 15-2CT	S	512292	66
		CPR 15-2CR	S	512196	64
To Order - Specify length, model, PCN and Installation accessories					

Accessories

Accessories		DL	EL
Power Connection	Heat trace to electrical service connection	RTPC	SSK/HSK-PC
Splice & Tee		RTST	RT-RST
End Seal	For terminating cable	RTES	RT-RES
Thermostat	Ambient air sensing thermostat	RTAS	TPR
	Line sensing mechanical thermostat	RTBC	TPR
General Application & Installation Accessories such as tape, pipe straps, warning labels, etc., refer to the Heat Trace Accessories page at the end of this section.			

Ordering Information

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

Model	Self-Regulating Freeze Protection		
CPR	Self-Regulating, Commercial Pipe and Roof Heating Cable		
	Code	**Output (Nominal W/Ft.)**	
	3	Three	
	5	Five	
	8	Eight	
	10	Ten	
	15	Fifteen	
		Code	**Voltage**
		1	120
		2	208 - 277
			Code / **Overjacket Options**
			CR — TPR overjacket over braid for protection against certain inorganic chemical solutions
			CT — TPE overjacket over braid for hostile/corrosive environments
CPR	☐ –	☐	☐ **Model Number**