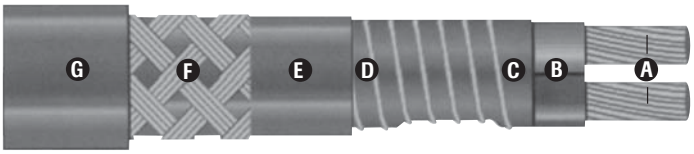
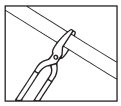
Heating Cable

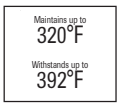
CWM
Constant Wattage Medium Temperature

- **Uniform Thermal Output, Low Energy Cost**
- **No Inrush at Any Ambient**
- **Industrial/Process and Commercial/Construction Applications**
- **Maximum Exposure Temperature, Power Off, 392°F (200°C)**
- **Steam Cleanable on Process Equipment Up to 190 PSIG (Power Off)**
- **4, 8 and 12 W/Ft.**
- **120, 208 - 277 and 480 Volt From Stock**
- **Approximate Size .30"W x .25"H**
- **Minimum Bend Radius 1-1/4"**
- **For Use on Metallic Pipes**
- **Consult Factory for Use on Plastic Pipes**

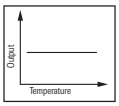




Cut to Length in Field



Medium Temperature



Constant Wattage Output

Note — Consult maximum maintenance temperature chart on page G-23 for allowable watt densities.

Description

Chromalox CWM constant wattage heating cable is a proven, reliable solution for industrial process temperature maintenance and freeze protection. CWM features a parallel heating core that produces uniform thermal output over its entire length. Using a single power point, you can easily configure and install a heat tracing system as short as several feet or as long as 780 feet right in the field. With 392°F (200°C) fluoropolymer electrical insulation over-jacketing, CWM has outstanding electrical and thermal properties, and is well suited for most chemically hostile environments.

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.

Features

- Durable, non-aging fluoropolymer jacket ensures long service life and can be used in some hostile environments.
- Flexible, easy to install on most equipment and delivers long-term reliable performance.
- Eliminates the need for oversized wiring or switchgear.
- Accurate temperature, reliable electric heat that can be consistently controlled and easily monitored.
- Safe and rugged.
- Parallel circuitry allows cut-to-length.
- High performance, rated to withstand up to 392°F saturated steam (190 psig) temperature (power off).
- Low profile, uses standard size thermal insulation on piping and process equipment.

Construction

A **Twin 12 AWG Copper Buss Wires —** Provide reliable, consistent electrical current.

B **FEP Insulation Jacket —** Electrically insulates buss wires.

C **Pairing Jacket —** Secures two buss wires together and provides wrapping surface for Nichrome wire.

D **Nickel Chromium Wire —** Heating component of the cable.

E **FEP Insulation —** Rugged outer sheath protects heating cable, assures longer service life, and provides protection against environmental application hazards.

F **Tinned Copper Braid —** Plated copper braid increases robust construction, provides ground path and provides additional protection in any location. Suffix "C" in model number.

G **FEP Overjacket —** Fluoropolymer overjacket, over the braid, provides protection from most aqueous and chemically corrosive solutions. Suffix"T" in model number.

Approvals[1]

UL Listed for ordinary areas.

CSA Certified for ordinary and:

- Class I, Div. 2, Groups A, B, C, D
- Class II, Div. 2, Groups F, G. Rated T3 Temperature Class[2].

Notes —

1. Depends on specific model.
2. 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

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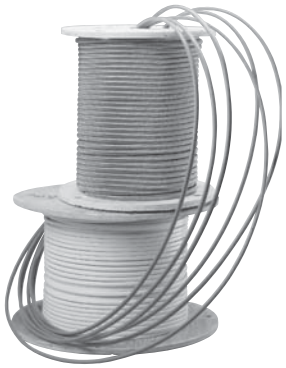
Constant Wattage Medium Temperature *(cont'd.)*



Specifications

Model	Output (W/Ft.)	Nominal Voltage (Vac)	Circuit Load (Amps/Ft.)	Max. Circuit Length (Ft.)	Length Between Nodes (in.)
CWM 4-1	4	120	0.033	600	36
CWM 8-1	8	120	0.067	290	24
CWM 12-1	12	120	0.100	200	24
CWM 4-2	4	240	0.017	1100	48
CWM 8-2	8	240	0.033	600	36
CWM 12-2	12	240	0.050	400	48
CWM 12-4	12	480	0.025	800	72

Output Wattage a Various Operating Voltages (per ft.)

Model	120V	208V	220V	240V	277V	480V
CWM 4-1	4	-	-	-	-	-
CWM 8-1	8	-	-	-	-	-
CWM 12-1	12	-	-	-	-	-
CWM 4-2	-	3	3.4	4	5.3	-
CWM 8-2	-	6	6.7	8	10.7	-
CWM 12-2	-	9	10.1	12	16	-
CWM 12-4	-	2.3	2.5	3	4	12

Maximum Allowable Pipe Maintenance Temperature with Power On

Output (W/Ft.)	Temperatures (°F)								
	3	4	6	6.7	8	9	10.1	10.6	12
w/o AT-1 Tape	340	325	293	282	262	246	229	222	200
w/ AT-1 Tape	350	344	332	328	320	314	307	304	296

Heating Cable

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Constant Wattage Medium Temperature *(cont'd.)*

Ordering Information

Output (W/Ft.)	Nominal Voltage (Vac)	Model	Stock	PCN	Wt./1000' (Lbs.)
4	120	**CWM 4-1CT**	**S**	**392075**	110
	240	**CWM 4-2CT**	**S**	**392083**	110
8	120	**CWM 8-1CT**	**S**	**392163**	110
	240	**CWM 8-2CT**	**S**	**392171**	110
12	120	**CWM 12-1CT**	**S**	**392251**	110
	240	**CWM 12-2CT**	**S**	**392260**	110
	480	**CWM 12-4CT**	**S**	**392278**	110

Accessories

Accessories		U Series	DL	EL
Power Connection	Heat trace to electrical service connection	UPC	RTPC	SSK
Splice & Tee		UMC	RTST	RT-TST
End Seal	For terminating cable	UES	RTES	N/A
Lighted End Seal		UESL	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	Constant Wattage Medium Temperature		
CWM	Constant Wattage, Medium Temperature Heating Cable		
	Code	**Output (W/Ft.)**	
	4	Four	
	8	Eight	
	12	Twelve	
	Code	**Nominal Voltage (Vac)**	
	1	120	
	2	240	
	4	480	
	Code	**Overjacket Options**	
	CT	Fluoropolymer corrosion resistant overjacket over braid for hostile/ corrosive environments	
CWM	**4** - **1**	**CT**	**Typical Model Number**

More Information is Available Online on Heat Trace.

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