

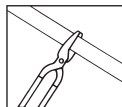
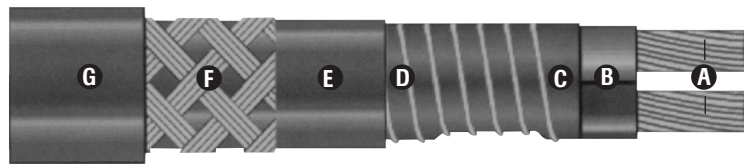
# Heating Cable

## CWM

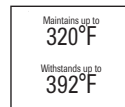
### Constant Wattage Medium Temperature

- Uniform Thermal Output
- Accurate, Easy to Control and Monitor
- Low Energy Cost
- No Inrush at Any Ambient
- Industrial/Process and Commercial/Construction Applications
- Flexible to Most Any Configuration
- Fluoropolymer Jacket
- 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 1/4"W x 1/8"H
- Minimum Bend Radius 1-1/4"
- For Use on Metallic Pipes Only
- Consult Factory for Use on Plastic Pipes

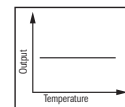
**WARNING** — A ground fault protection device is required by NEC to minimize the danger of fire if the heating cable is damaged or improperly installed. A minimum trip level of 30mA is recommended to minimize nuisance tripping.



Cut to Length  
in Field



Maintains up to  
320°F  
Withstands up to  
392°F  
Medium Tem-  
perature



Constant Watt-  
age Output

**Note** — Consult maximum maintenance temperature chart on page G-15 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. System design only requires that you match the CWM cable thermal output to the heat loss of your piping system.

CWM is flexible at most ambient temperatures and can be wrapped around piping and complex fittings. It is rugged, easy to monitor and maintain temperature, and has zero inrush at start-up. 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. An extensive range of wattages and voltages are available immediately from Chromalox stock.

#### 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 (optional)** — Fluoropolymer overjacket, over the braid, provides protection from most aqueous and chemically corrosive solutions. Suffix "T" in model number.

#### Approvals<sup>1</sup>

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<sup>2</sup>.

#### Notes

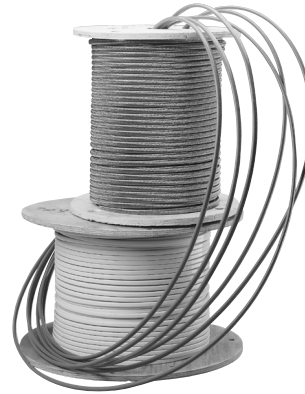
1. Depends on specific model.
2. Exception: Cable surface temperature shall not exceed 190°C in Class II, Div. 2, Group F; 165°C in Class II, Div. 2, Group G.

CONSTANT  
WATTAGE

# Heating Cable

## CWM

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



### Specifications

Model	Output (W/Ft.)	Nominal Voltage (Vac)	Circuit Load (Amps/Ft.)	Max. Circuit Length (Ft.)
CWM 4-1CT	4	120	0.033	350
CWM 8-1CT	8	120	0.067	240
CWM 12-1CT	12	120	0.100	200
CWM 4-2CT	4	240	0.017	700
CWM 8-2CT	8	240	0.033	480
CWM 12-2CT	12	240	0.050	400
CWM 12-4CT	12	480	0.025	780

### Output Wattage at Various Operating Voltages (Ft.)

Model	120V	208V	220V	240V	277V	480V
CWM 12-1	12	—	—	—	—	—
CWM 8-1	8	—	—	—	—	—
CWM 4-1	4	—	—	—	—	—
CWM 12-2	3	9	10.1	12	—	—
CWM 8-2	2	6	6.7	8	—	—
CWM 4-2	—	3	3.4	4	—	—
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

## CWM

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

#### Ordering Information

Output (W/Ft.)	Nominal Voltage (Vac)	Model	Stock	PCN	Wt./1000' (Lbs.)
4	120	CWM 4-1C	S	392040	96
		CWM 4-1CT	S	392075	110
	240	CWM 4-2C	S	392059	96
		CWM 4-2CT	S	392083	110
8	120	CWM 8-1C	S	392139	96
		CWM 8-1CT	S	392163	110
	240	CWM 8-2C	S	392147	96
		CWM 8-2CT	S	392171	110
12	120	CWM 12-1C	S	392227	96
		CWM 12-1CT	S	392251	110
	240	CWM 12-2C	S	392235	96
		CWM 12-2CT	S	392260	110
	480	CWM 12-4C	S	392243	96
		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-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
<b>To Order —</b> 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		
	<b>Code</b>	<b>Output (W/Ft.)</b>	
	4	Four	
	8	Eight	
	12	Twelve	
	<b>Code</b>	<b>Nominal Voltage (Vac)</b>	
	1	120	
	2	240	
	4	480	
	<b>Code</b>	<b>Braid and Overcoat Options</b>	
	C	Standard tinned-copper metallic braid for additional protection and ground path	
	CT	Fluoropolymer corrosion resistant overjacket over braid for hostile/corrosive environments	
CWM	5	1	C
			<b>Typical Model Number</b>

CONSTANT  
WATTAGE



More Information  
is Available Online  
on Heat Trace.

Bookmark Your Browser to  
[www.chromalox.com](http://www.chromalox.com)  
and Select **Manuals**.