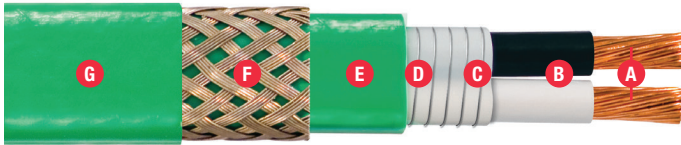


PRODUCT OVERVIEW



- A** Twin 12 AWG Copper Bus Wires
- B** FEP Insulation Jacket
- C** Pairing Jacket
- D** Nickel Chromium Wire
- E** FEP Insulation
- F** Tinned Copper Braid FEP
- G** Overjacket

Chromalox® CWM constant-wattage heat trace cable is ideally suited for industrial process application temperature maintenance and freeze protection where a particular watt density is required at all times. Chromalox CWM heating cable features a parallel heating core that produces uniform thermal output over its entire length. A CWM heat tracing system as short as several feet to as long as 780 feet (238 meters) can be easily configured and installed in the field with a single power point. It is easy to monitor and maintain temperature, and has zero inrush at startup.

Constant wattage cable is flexible for wrapping around piping and complex fittings. It can be cut-to-length and spliced in the field. Although not suited for overlapping, its constant output makes it an ideal choice for higher temperature applications where higher watt densities are required. Chromalox CWM constant-wattage heating cable is designed for use on 120 to 480 V. With 392°F (200°C) fluoropolymer electrical insulation overjacketing, CWM cable has outstanding electrical and thermal properties, and is well-suited for most chemically hostile environments. Chromalox constant wattage cables are third-party tested and approved for use in harsh corrosive and hazardous area applications. An extensive range of wattages and voltages are available.

DESCRIPTION

The heating cable consists of two (2) 12 AWG copper bus wires embedded in fluorinated ethylene propylene (FEP) jacketing secured together in a pairing jacket that provides a wrapping surface for nichrome wire, the heating component of the cable. A rugged FEP Insulation sheath protects the nichrome wire

winding to help ensure longer service life and provide protection against environmental application hazards. A tinned copper braid covering increases robust construction and provides protection against environmental application hazards and a positive ground path.

WARNING — A ground fault protection device is required by Chromalox, agency certifications, and 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.

APPLICATION

Trace surface type Metal

Chemical Resistance Exposure to aqueous solutions of inorganic compounds

Exposure to liquids, organic chemicals, acids, or bases

VOLTAGE SUPPLY

120 Vac

208 to 277 Vac (240 Vac nominal)

480 Vac

CWM CONSTANT-WATTAGE MEDIUM-TEMPERATURE HEATING CABLE

TEMPERATURE RATING

Maximum Maintenance Temperature.....	350°F (177°C)
Maximum Exposure Temperature, Power Off.....	392°F (200°C)
Minimum Installation Temperature.....	-40°F (-40°C)

APPROVALS



- Ordinary Areas
- See schedule for specific model



- Ordinary Areas
- Class I, Division 2, Groups B, C, D
- Class II, Division 2, Groups E, F, G
- Class III
- T-Rating*

*T3: 392F (200C)

Exception: Cable surface temperature shall not exceed 374°F (190°C) in Class II, Div. 2, Group F; 329°F (165°C) in Class II, Div. 2, Group G.

DESIGN & INSTALLATION

For proper design and installation, use Chroma-Trace Heat Trace Project Design Software. Additional resources include the Chromalox Heat Trace Design Guide (PJ130), Pipe Heat Tracing Design Worksheet (PJ305), and Chromalox

Industrial Heating Cable Products Installation Instructions (PJ438). These resources are available on the Chromalox website, www.chromalox.com.

NOMINAL POWER OUTPUT RATINGS

Output Wattage at Alternate voltages, 50°F (10°C), W/ft (W/m)

Model	120 Vac	208 Vac	220 Vac	240 Vac	277 Vac	480 Vac
CWM 4-1	4.0 (13.12)	N/A	N/A	N/A	N/A	N/A
CWM 8-1	8.0 (26.24)	N/A	N/A	N/A	N/A	N/A
CWM 12-1	12.0 (39.36)	N/A	N/A	N/A	N/A	N/A
CWM 4-2	N/A	3.0 (9.84)	3.4 (1.15)	4.0 (13.12)	5.3 (17.38)	N/A
CWM 8-2	N/A	6.0 (19.38)	6.7 (21.98)	8.0 (26.24)	10.7 (35.09)	N/A
CWM 12-2	N/A	9.0 (29.52)	10.1 (33.13)	12.0 (36.36)	16.0 (52.48)	N/A
CWM 12-4	N/A	2.3 (7.54)	2.5 (8.20)	3.0 (9.84)	4.0 (13.12)	12.0 (39.36)

MAXIMUM CIRCUIT LENGTHS

Model	Base Jacket Color	Output, W/ft (W/m)	Nominal Voltage, Vac	Circuit Load, A/ft (A/m)	Max. Circuit Length, ft (m)
CWM 4-1	Blue	4 (13)	120	0.033 (0.11)	350 (109)
CWM 8-1	Orange	8 (26)	120	0.067 (0.22)	240 (109)
CWM 12-1	Black	12 (39)	120	0.100 (0.33)	200 (91)
CWM 4-2	Green	4 (13)	240	0.017 (0.06)	700 (318)
CWM 8-2	Yellow	8 (26)	240	0.033 (0.11)	480 (218)
CWM 12-2	White	12 (39)	240	0.050 (0.16)	400 (181)
CWM 12-4	Green	12 (39)	480	0.025 (0.08)	780 (354)

CWM CONSTANT-WATTAGE MEDIUM-TEMPERATURE HEATING CABLE

MAXIMUM ALLOWABLE PIPE MAINTENANCE TEMPERATURE WITH POWER ON

Output W/ft (W/m)	Temperature °F (°C)								
	3 (9.8)	4 (13.1)	6 (19.7)	6.7 (21.9)	8 (26.2)	9 (29.5)	10.1 (33.1)	10.6 (34.8)	12 (39.4)
w/o AT-1 Tape	340 (171)	325 (163)	293 (144)	282 (139)	262 (128)	246 (119)	229 (109)	222 (105)	200 (93)
w/ AT-1 Tape	350 (177)	344 (173)	332 (167)	328 (164)	320 (160)	314 (157)	307 (153)	304 (151)	296 (147)

PRODUCT CHARACTERISTICS

Maximum Bend Radius, in. (mm)	1.125 (28.5)
Bus Wire Size	12 AWG
Heating Cable Dimensions WxH, in. (mm)	0.356 x 0.246 (9.0 x 6.2)
Weight, lb per 1,000 ft (kg per 300m)	110 (50)

CONNECTION KITS

Chromalox has a complete line of accessories specifically designed for use with CWM cable. Use only Chromalox accessories to ensure the performance of the heat trace system, compliance with warranty, codes, and approval requirements.

Connection Kits and Thermostats		U Series	DL Series	EL Series
Power Connection	Heat trace to electrical service connection	UPC	RTPC	N/A
Splice & Tee		UMC	RTST	RT-TST
End Seal	For terminating cable	UES	RTES	N/A
Lightened End Seal		UESL	RTST-SL	N/A
Thermostat	Ambient air sensing thermometer	UAS	RTAS	THL/TXL
	Line sensing mechanical thermostat	UBC	RTBC	THR/TXR

ORDERING INFORMATION

Model	Volts	Output, (W/ft.)	PCN
CWM 4-1CT	120	4 @ 50F	392075
CWM 4-2CT	240	4 @ 50F	392083
CWM 8-1CT	120	8 @ 50F	392163
CWM 8-2CT	240	8 @ 50F	392171
CWM 12-1CT	120	12 @ 50F	392251
CWM 12-2CT	240	12 @ 50F	392260
CWM 12-4CT	480	12 @ 50F	392278



1347 Heil Quaker Blvd
LaVergne, TN 37086

TECHNICAL SUPPORT
412-967-3940

email: sales@chromalox.com
www.chromalox.com

*press 11 to be directed to heat trace support