# Technical Data Sheet & Installation Instructions for UMC Universal Multiple Entry Connection Kit for Self-Regulating & Constant Wattage Bundles

Bulletin UMC-II (PN 4041-5300-UMC)

# **Contact Information:**

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# Temptrace™ UMC Universal Multiple Entry Connection Kit

# Scope

The Temptrace™ UMC Universal Multiple Entry Connection Kit for SL and SH series self-regulating bundles or CLM series constant watt bundles provides water-resistant cable entry, enclosure support, terminal block and a water-resistant, corrosion-resistant wiring enclosure. In addition to splicing or teeing cables, this model can be used to provide power connection to up to three cables from one connection kit.

### **Bill of Materials**

- (1) Junction box with DIN rail and terminal block
- (1) Compression fitting
- (1) Locknut
- Silicone termination boots
- (1) Tube bundle standoff
- (1) O-ring
- (1) Self-regulating cable grommet (black)
- (1) Constant wattage cable grommet (red)
- (1) Self-regulating cable grommet Insert
- (1) Constant wattage cable grommet insert
- (1) SS hose clamp
- (1) Caution Label

- (1) Chromalox UMC instruction sheet
- Chromalox general sticker for U series kits
- (1) RTV for heater termination boot
- (1) Brass locknut (when used as Splice/Tee)
- (1) Conduit plug (when used as Splice/Tee)
- (2) Jumpers
- 4041-5300-UMC Parker Parflex Installation Instructions supplied by TMR (Total Marketing Resources)



**Caution:** The heater will come in contact with the power feed wires in the junction box. Make sure that the temperature rating of the power feed wire insulation is adequate for the heater used.

### Approvals:

### **CSA Certified**

Ordinary Areas Class I, Div. 2, Groups A, B, C, and D Class II, Div. 2, Groups F, G Class I, Div. 2, Zone 1 or 2 AEx e II

### **FM Approved**

Ordinary Areas
Class I, Div. 2, Groups B, C, D
Class II, Div. 2, Groups E, F, G
Class III
Class I, Div. 2, Zone 1 or 2 AEx e II

Atex Approved (Please note that CLM series products are not covered by ATEX or IEC Ex certifications)

- ATEX certified to BS EN 60079-0:2006, BS EN 60079-7:2007 & BS EN 62086:2005 ITS08ATEX36059X
- IECEx certified to IEC 60079-0:2007 Ed.5, IEC 60079-7:2006 Ed.4 and IEC 62086-1:2001 Ed.1. IECEx ITS 07.0018X2

# Ground Fault Equipment Protection Devices (GFEPDs):

The IEEE standards (515-2004) for heating cables requires the use of GFEPDs with a nominal 30 miliampere trip level for "piping systems in classified areas, those areas requiring a high degree of maintenance, or which may be exposed to physical abuse or corrosive atmospheres."





### NOTE

The IEEE standards (515-2004) for heating cables requires the use of GFEPDs with a nominal 30 milliampere trip level for "piping systems in classified areas, those areas requiring a high degree of maintenance, or which may be exposed to physical abuse or corrosive atmospheres."



Measure 24 inches from end of bundle and carefully cut around jacket and insulation. Do not cut into heating cable or tubing.



Remove jacket, insulation and heat transfer foil.

3



Insert heating cable through tubing bundle standoff and grommet as shown. 8 inches of cable should extend past the grommet. If only two cables are entering the kit close off the remaining grommet opening with the appropriate grommet insert. Attach the standoff to the bundle with a SS hose clamp as shown.

4



Score the outer insulation 7 inches from the end of the cable. Lightly cut the outer jacket up the center to the end of heating cable and remove the outer jacket from the cable.

## **⚠** WARNING!

Do not damage the braid or the base cable insulation while scoring. Cutting wire over braid will prevent proper installation and may cause electrical malfunctions.

5



Move braid back toward the overjacket, creating a bulge. At the bulge, separate the braid to make an opening.

6



While bending the heating cable, work the cable through the braid opening. Pull the braid tight to create grounding pigtail.

7



Score the inner insulation 6 inches from the end. Lightly cut the inner jacket up the center to end of heating cable and remove the inner jacket from the cable.

8

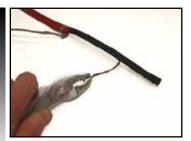


Shave the core material from the outside of each bus wire.

\*Skip this step if using CWM-C constant wattage cable.



9



Starting at the end of the heating cable, using needle nose pliers or a knife pull each bus wire away from the core material for self-regulating heating cables.

\*Separate CWM-C leads and strip 1/4 inch from each leadwire.

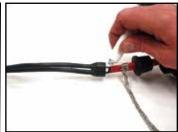
10



Remove the exposed core material and cut 1/4 inch of the end of each bus wire.

\*Skip this step if using CWM-C constant wattage cable.

11



Liberally apply RTV over the exposed matrix and leads. Push the rubber boot over the heating cable. Trim lead ends as needed.

\*Boot is not needed when using CWM-C constant wattage cable.

12



Slide compression fitting over cable. Grommet should be placed inside standoff. Termination boot should be spaced 1/2 inch from sealing grommet. Tighten compression fitting until it bottoms out against standoff.

13



Assemble junction box to compression fitting as shown. Tighten locknut until the junction box bottoms out against the lip of the compression fitting.

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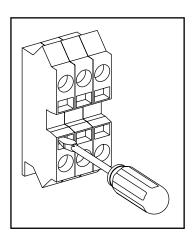


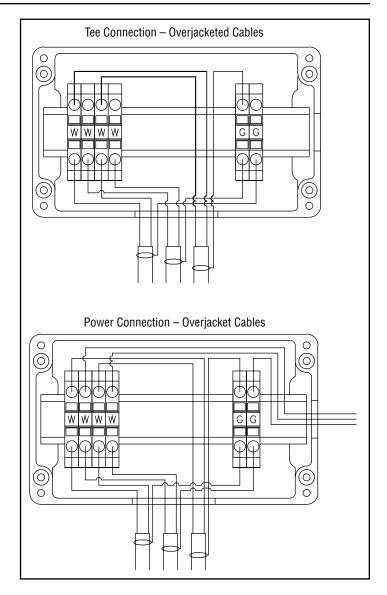
14

Attach 3/4" conduit hub. Use a flat head screwdriver to release the terminal spring clamps andinsert cable leads and grounding braid. The UMC multiple entry connection kit can be used as a tee kit or a power connection kit for multiple cables. Please see the electric diagrams below for proper wiring for your application. Attach junction box cover to seal enclosure.

**Note:** The conduit hub should be approved for Class 1, Div. 2; Class II, Div. 1 & 2, Class III, Div. 1 & 2, and NEMA 4X rated by a nationally recognized testing laboratory.

For ATEX and IECEx installations: The conduit hub or grounded hub must be an ATEX or IECEx component certified item as appropriate to the overall heater installation.





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