

Technical Data Sheet & Installation Instructions for UPC Universal Power Connection Kit for Self-Regulating & Constant Wattage Bundles

Bulletin UPC-II (PN 4041-2101-UPC)

Contact Information:

Parker Hannifin Corporation
Parflex Division
1300 N. Freedom St.
Ravenna, OH 44266 USA

phone 330 296 2871
fax 330 296 0675
www.parker.com/pfd

Temprace™ UPC Universal Power Connection Kit With Junction Box

Scope

The Temprace™ UPC Universal Power Connection kit for SL and SH series self-regulating bundles or CLM series constant watt bundles provides water-resistant cable entry for one cable, enclosure support, terminal block, and a water-resistant corrosion-resistant wiring enclosure with a 3/4" opening to accept a conduit hub to power a self-regulating or constant watt heating cable.

Bill of Materials

- | | |
|---|--|
| (1) Molded junction box consisting of: | (1) Constant wattage cable grommet (red) |
| (1) Base | (1) SS hose clamp |
| (1) Box with conduit opening | (1) Caution Label |
| (1) Lid | (1) Chromalox UPC instruction sheet |
| (1) Compression fitting | (1) Chromalox general sticker for U series kits |
| (1) Locknut | (1) 4041-2101-UPC Parker Parflex Installation Instructions supplied by TMR (Total Marketing Resources) |
| (1) Silicone termination boot | |
| (1) Tube bundle standoff | |
| (1) RTV | |
| (1) O-ring | |
| (1) Self-regulating cable grommet (black) | |



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 07.0018X

Ground Fault Equipment Protection Devices (GFEPDs):

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."



NOTE

The IEEE standards (515-2004) for heating cables requires the use of GFEPDs with a nominal 30 milliamper 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.”

1



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

2



Remove jacket, insulation and heat transfer foil.

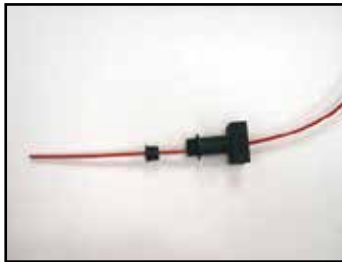
NOTE

The UPC is an electrical connection kit and provides a method to seal the end of the bundle with RTV.

NOTE

If an HSB (heat shrinkable boot) or ESB (end seal boot) is used to seal the end of the bundle, the boot must be installed prior to installing the base of the heating cable.

3



Insert heating cable through tube bundle standoff and grommet as shown. 8 inches of cable should extend past the grommet. Strap standoff to tubing bundle with SS hose clamp.



CAUTION

Appropriate grommet must be used depending upon heating cable in bundle. Select black grommet for self-regulating cables and red grommet for constant-wattage heating cables.

4



Score the outer insulation 7 inches from the end of 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. Curring 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

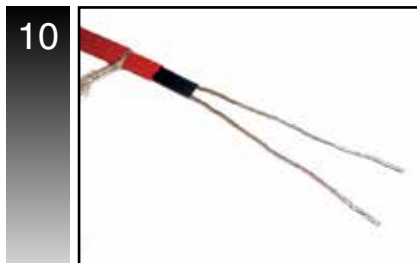
Shave the core material from the outside of each bus wire.
*Skip this step is using CWM-C constant wattage cable.



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 lead wire.



10

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

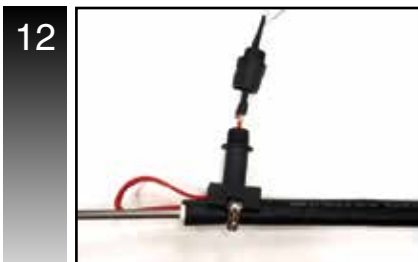
*Skip this step if using CWM-C constant wattage cable.



11

Liberaly 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.

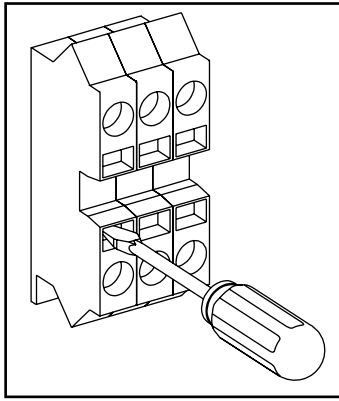


13

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 and insert cable leads and grounding braid. Supply power electrical connections should be brought to terminal as shown. 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.

