Dekoron/Unitherm 1548-12000 and 1548-1200J Electrical Connection Kits



The Dekoron/Unitherm 1548-12000 and 1548-1200J electrical connection kits are designed for making electrical connections for Unitherm 2252, 2262, 2256, 2266, 2F52, and 2F62 electric trace tubing bundles. The 1548-1200J kit contains all the necessary components and hardware to make:

- one input connection, or
- one splice connection, or
- one input power splice connection; or
- one input power with thermostat; or
- one "T" splice connection; as well as
- two termination connections.

The 1548-12000 kit is identical to the 1548-1200J less the conduit box (items 6,7, and 8). It is intended for use with customer supplied conduit boxes (Nationally Recognized Testing Laboratory Approved, meeting the requirements of ANSI/ISA-S82).

The kits are approved for use in ordinary locations and Class I, Division 2, Group B,

C, and D; Class II, Division 2, Group F and G; and Class III, Division 1 and 2 hazardous locations; per Factory Mutual File JI 3Z2A6.AX.

Installation Instructions



Input Power Connection Procedure

- 1. Carefully strip 8" of jacket and thermal insulation from product end exposing process tube(s) and heating element.
- 2. Place bracket (9) over product end 1/2" beyond bared section and tighten cable ties being sure to run cable ties through the slots on the base of the bracket.
- 3. Attach conduit box (6) to bracket (9) with

connector (1B) and locknut (4) (if necessary). Locknut (4) should only be used if the bracket (9) is loose between the connector (1B) and the conduit box (6). If the bracket is loose install locknut (4), tightening bracket between locknut and connector (1B).

- 4. Pull back the heating elements metallic braid and trim 1/2" off the heater element. Pull the braid slightly beyond the end of the heater and twist to form a short pigtail. Slide silicone rubber sleeve (10 or 11) over the heater and braid until the sleeve passes into the end of the bundle. For 2252/2262 or 2F52/2F62 bundles use 5/16" sleeving (10), for 2256/2266 bundles use 7/16" sleeving (11). Cut off excess sleeving so it coincides with the end of heating element.
- 5. Feed the heating element and sleeve through the cap (1A) and metal washer (2).
- 6. Slide the rubber grommet (3) over the heating element and sleeve. For 2252/2262 and 2F52/2F62 bundles use 3/8" hole grommet. For 2256/2266 bundles use 1/2" hole grommet. Do not use grommet included in CGB295 connector pack discard. (Wetting and rotating the grommet while pushing will help.)

Note: The NEC requires ground fault protection of equipment for each branch circuit supplying electric heating equipment.

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- 7. Feed the heating element and sleeve through the connector (1B) and into the conduit box until the grommet seats in the connector. Tighten cap and washer over grommet onto connector.
- Trim back insulation on heating element and pigtail approximately 2 inches of braid. Connect conduit to box. Thread power leads (12 AWG copper, not furnished) into conduit box and connect



to heating element leads and ground braid with crimp terminals (12G or 12H) and insulate with high temperature tape (12E).

- 9. Attach gasket (7) and cover (8). Screw plug (5) into remaining opening in conduit box.
- 10. Push thermal insulation inside bundle end approximately 1/4". Be sure silicone rubber sleeve over heater is within the end of the bundle and fill bundle end with RTV sealant (12D).



Input Power Splice and Splice Connection Procedure

- 1. Follow steps 1 through 4 of Input Power Connection Procedure.
- 2. Secure heating elements to bared tube section with high temperature tape (12E) and then follow Steps 5 through 7 of Input Power Connection Procedure for each heating element.
- 3. Connect tubes together with tube union (not included). For a cleaner looking installation,

insulate and seal using 1540-10000 Seal Patch kit (not included).

- 4. Follow steps 8 through 10 of Input Power Connection Procedure.
 - A. For Splice Connection only, no power leads are required. Simply splice heating elements to one another with crimp terminals (12G or 12H) and insulate with high temperature tape (12E). Caution must be taken to be certain maximum circuit lengths are not exceeded - contact factory for more information.
 - B. For Input Power Splice Connection, splice heating elements together with input power lead using appropriate connectors (not included) and insulate with high temperature tape (12E) as required. Note: Input power lead wires must be sized to handle the load of both heater circuits.



Termination Connection Procedure

- 1. Remove jacket and insulation 4" from end of bundle exposing the tube(s) and heating element.
- 2. Remove metallic braid 3" from end of heating element.
- 3. Trim the end of the heating element so that one bus wire is 1/4" shorter than the other, making sure the conductors are not shorted together or to the tube (or the fine nichrome heater wire in a 2252/2262 or 2F52/2F62 bundle).

TERMINATION CONNECTION 4. Fill the end boot (10A) with end sealant (10D) and slide onto heating element. Tape the end boot (10A) into place with high temperature tape (10E).

- 5. Anchor the heating element onto the tube with high temperature tape (10E).
- 6. Push the thermal insulation back into the jacket 1/4" and apply sufficient end sealant (10D) to cover insulation. For a cleaner looking installation, insulate and seal using 1540-10000 Seal Patch kit (not included).

Note: The NEC requires ground fault protection of equipment for each branch circuit supplying electric heating equipment.