

# NELSON™ HEAT TRACE GHK-M25 TERMINATION KIT

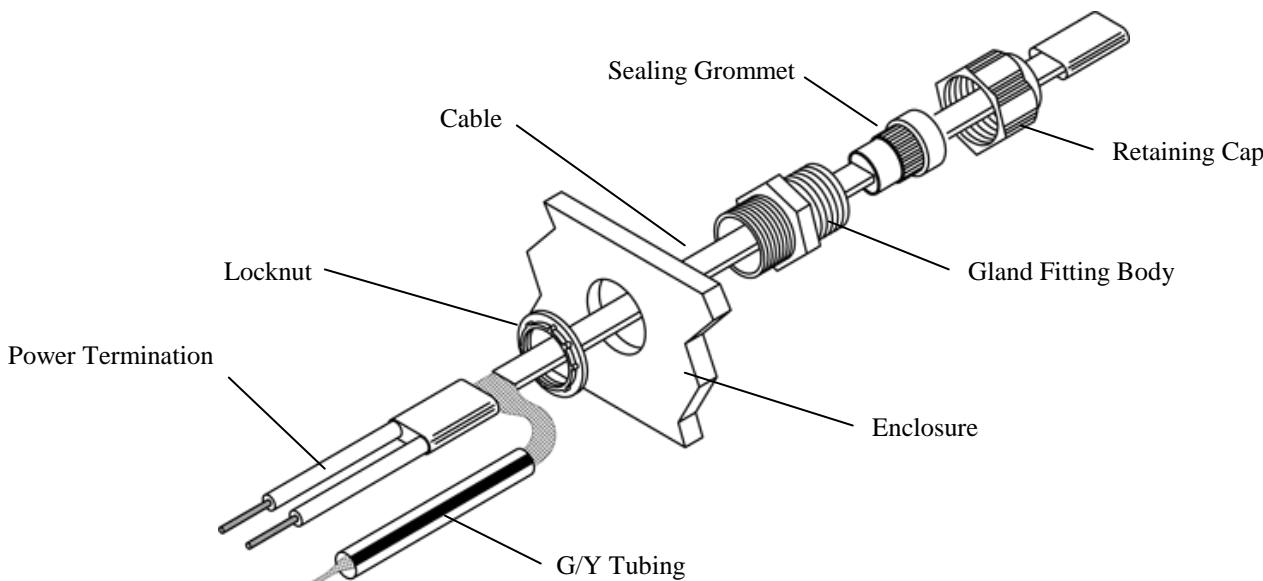
## INSTALLATION INSTRUCTIONS

### DESCRIPTION

The GHK-M25 Termination Kit provides a watertight entry into an enclosure with minimum IP66 environmental ratings. This fitting is suitable for use in fixed installations only and is compatible with any approved enclosure with a maximum wall thickness of 4.76mm (.1875") or with M25 threaded openings. This kit is designed for use with all wattages of Nelson Heat Trace LT-J, LT-JT, UT-1, QLT-J, HLT-J and XLT-J heater cables. The GHK-M25-L is to be used with LT and UT-1 heating cables and the GHK-M25-H is to be used with QLT, HLT and XLT heating cables. These instructions are to be used together with the installation and maintenance instructions for self-regulating heater cable (GA-1765).

### KIT CONTENTS

- 1 Cable Gland, .M25 thread
- 1 Locknut
- 1 Sealing Grommet
- 1 Power Termination, 101.6mm (4.00")
- 1 End Seal
- 1 Tube of Silicone
- 1 G/Y Tubing, 9.5mm (0.38") diameter, 152mm (6") length



### ⚠ CAUTION:

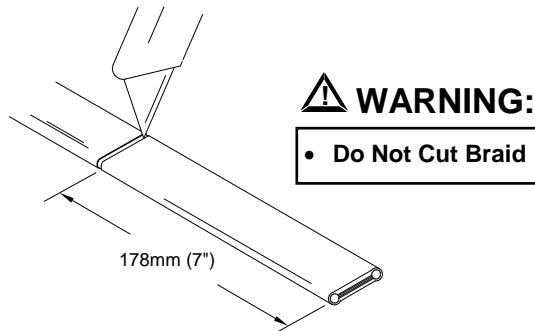
- To prevent electrical arcing and fire hazard, all cable connections and electrical wiring connections should be sealed against moisture. This includes the use of proper cable sealing kits and the moisture proofing of all wire connections.
- The metal sheath/braid of the heater cable must be connected to a suitable ground path.

1. Install gland fitting body on selected enclosure. For enclosures without threaded hubs, install the connector and secure with the supplied locknut as shown in the diagram above. Discard the locknut when using threaded enclosures.
2. Determine proper grommet for application.
3. Slide the retaining cap over the end of cable to be terminated.
4. Insert the cable through the grommet/gland fitting body and into the enclosure allowing enough cable to complete termination of the cable.
5. The heating cable shall be be installed with the retaining cap fully tightened to the gland body.
6. Terminate heating cable, see sheet 2.

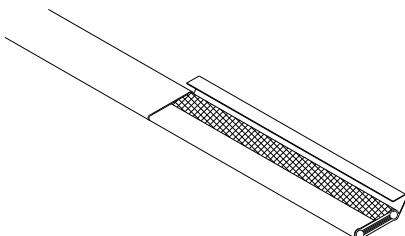
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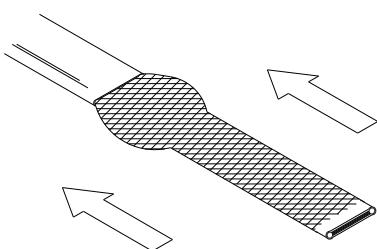
### HEATING CABLE PREPARATION



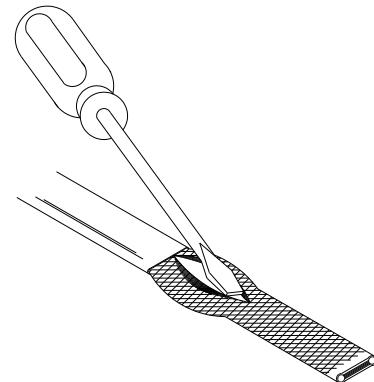
1. Lightly cut around heater overjacket 178mm (7") from the end. Bend cable to break the overjacket.
2. Lightly cut overjacket up the center between first cut mark and the cable end. Bend cable to break the overjacket.



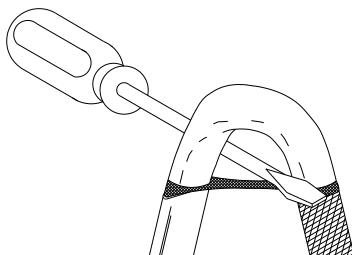
3. Remove overjacket from heater cable.



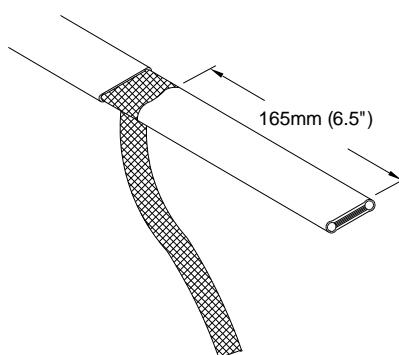
4. Move braid back toward the overjacket, creating a bulge.



5. At the bulge, separate the braid to make an opening.



6. While bending the heater cable, work it through the braid opening.

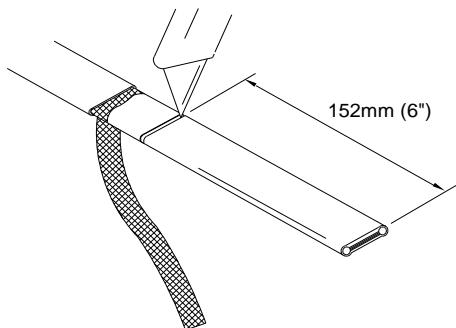


7. Pull the braid tight.

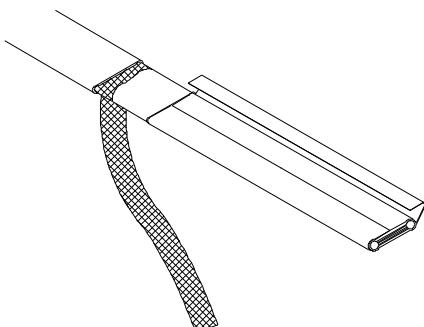
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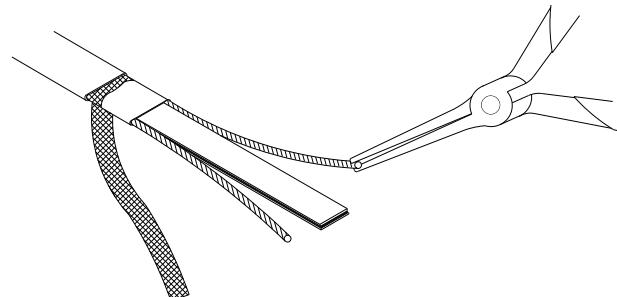
### HEATING CABLE PREPARATION



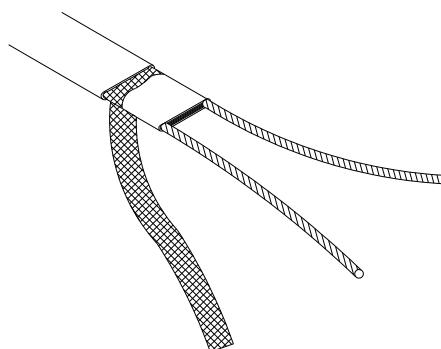
8. Lightly cut around cable outer jacket 152mm (6") from the end. Bend cable to break outer jacket.
9. Lightly cut the outer jacket up the center between the first cut mark & the cable end. Bend cable to break outer jacket.



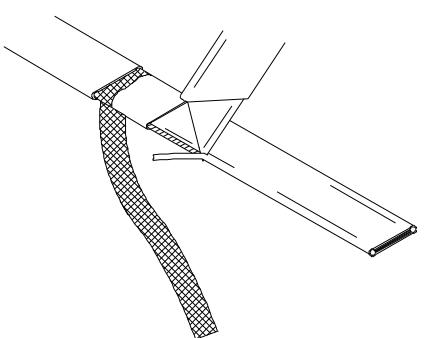
10. Remove the jacket from the heater cable.



12. Starting at the end, pull each bus wire away from the core material.
13. Remove exposed core material.



14. Cut 6mm (0.25") off the end of each bus wire.
15. Proceed to "Power Termination Installation" on sheet 4.



### **WARNING:**

- **Do Not Cut Bus Wires**

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

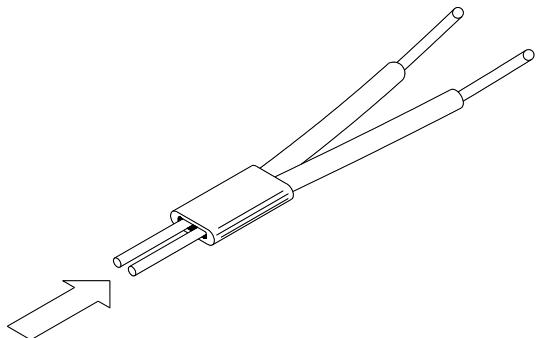
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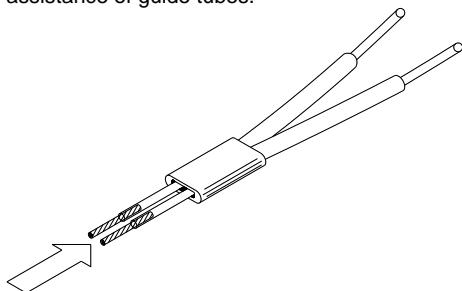
### POWER TERMINATION INSTALLATION

#### ⚠ WARNING:

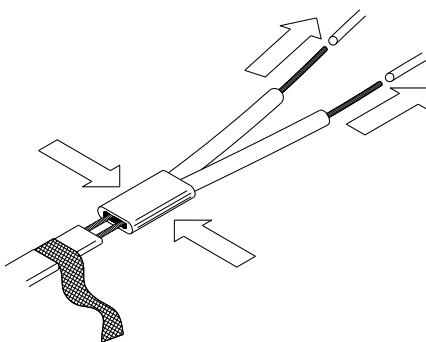
- Bus wires must not touch or cross while inserting into power termination.
- Only power terminations specifically approved for the vendors' style and type of heater cable must be used.



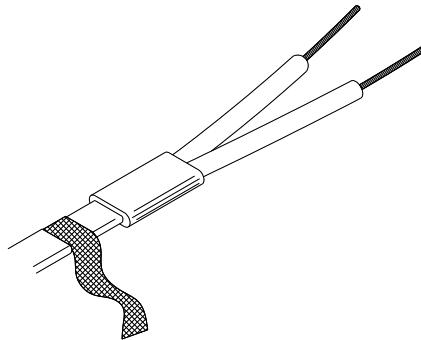
1. Insert guide tubes into power termination fitting.  
Note: XLT cable will need to be installed without the assistance of guide tubes.



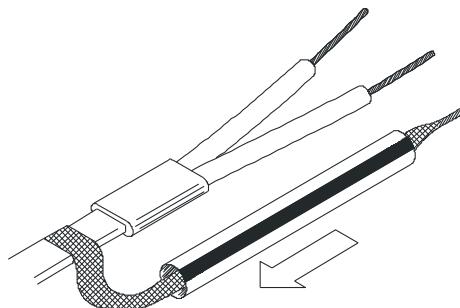
2. Insert bus wires into guide tubes.



3. Remove guide tubes.
4. Squeeze power termination opening and fill with silicone.



5. Push power termination to overlap jacket.
6. The silicone will set up in about 30 minutes with a complete cure after 24 hours.

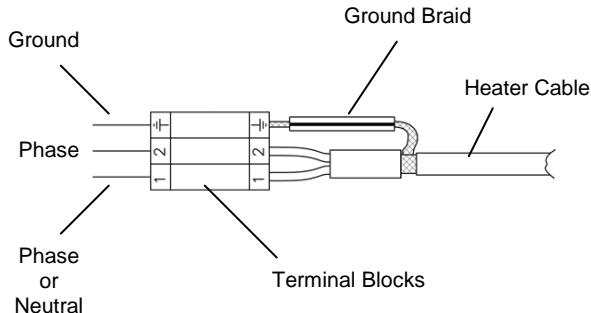


7. Slide green/yellow tubing over ground braid before terminating heater to customer supplied terminals.

#### ⚠ WARNING:

- Do not megger or hi-pot until silicone is completely cured.
- Braid must be kept away from bus wires or shorting will occur.

### ELECTRICAL WIRING



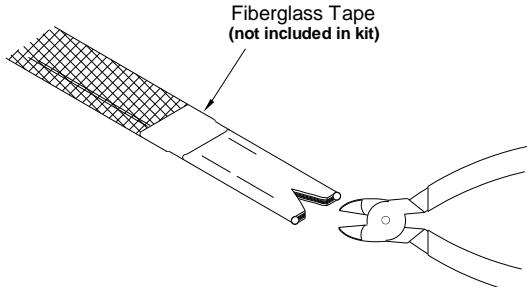
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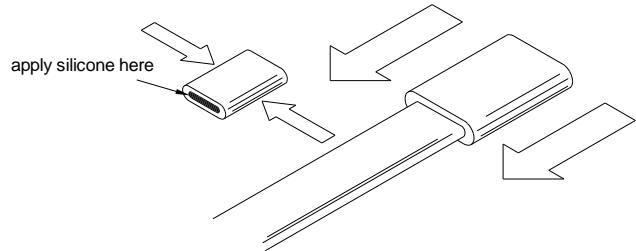
### END SEAL INSTALLATION

#### ⚠ WARNING:

- Only end seals specifically approved for the vendor's style and type of heater cable must be used.



- Remove 13mm (0.5") of overjacket exposing the braid then remove the 13mm (0.5") of exposed braid.
- Make a 10mm (0.4") cut at the end of the heater cable.



- Squeeze the end seal and fill with silicone.
- Push end seal over the heater cable. The end seal should overlap the overjacket.
- The silicone will set up in about 30 minutes with a complete cure after 24 hours.

#### Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**ATEX:** EN 60079-0:2012+A11:2013, EN 60079-30-1:2007, EN 60079-7:2007, EN 60079-31:2014

**IECEx:** IEC 60079-0:2011, IEC 60079-30-1:2007, IEC 60079-7:2006, IEC 60079-31:2013

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KEMA 07ATEX0124

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#### IECEx KEM 07.0041

Ex e IIC T6...T5\* Gb for LT / UT-1 Series  
Ex e IIC T3 Gb for HLT / QLT / XLT Series  
Ex tb IIIC T80°C...T95°C\* Db for LT / UT-1 Series  
Ex tb IIIC T195°C Db for HLT / QLT / XLT Series  
-40°C ≤ Tamb ≤ 55°C  
IP66

\* For temperature code see heating cable or design information

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TULSA, OK 74101

■ TEL 918-627-5530

■ FAX 918-641-7336

■ [www.nelsonheaters.com](http://www.nelsonheaters.com)