

**Please ensure you have read and fully understood this manual prior to installation.**

Thermoprotect is designed to be used on pipes containing liquids liable to freeze and this termination kit will create the connection to mains voltage.

Never switch cable on whilst in a coil.

Protect the cable from damage at all times.

Only use the approved jointing and termination kits. Failure to do so will result a void in your product warranty.

## Installation

Before applying the cable ensure the area and pipe work is clean and free of any sharp surfaces. Secure the cable to the pipe at intervals of no more than 200mm, with the cable run straight along the pipe or evenly spiralled.

The cable should also be wrapped around flanges, valves or vulnerable pumps to compensate for the extra heat loss. The cable may be allowed to touch or cross if necessary.

The system should be fully installed and protected from the weather and any mechanical damage.

Warning labels should be applied.

Leave approximately 300mm of cable out at the start of the circuit to facilitate connection to a suitable junction box using the gland provided.

All terminations and connections must be completed and checked by a qualified electrician and carried out in accordance with current regulations.

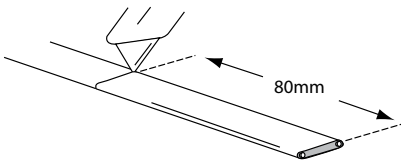
### Termination - Kit includes:

- 1 black cable gland
- 2 blue/brown 40mm x 3.2mm diam heat shrink
- 1 green/yellow 65mm x 3mm diam sleeve
- 1 black 70mm x 12mm diam heat shrink
- 2 black 50mm x 12mm diam heat shrink
- 1 black 20mm x 12mm diam heat shrink
- 2 insulated butt splices
- 1 warning label

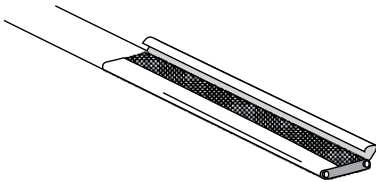
### Tools required:

- Sharp knife
- Side cutters
- Long nose pliers
- Small screwdriver
- Heat gun
- Crimper
- Spanner

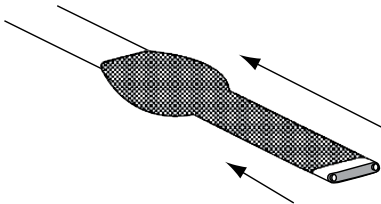
## Termination Preparation:



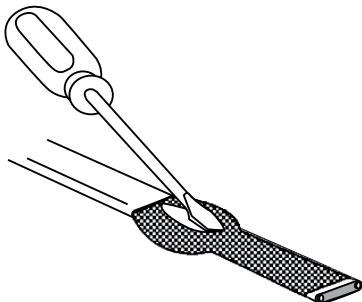
1. Slide cable gland and 70mm heat shrink onto cable. Cut around outer cable sheath 80mm from end. Gently break sheath free.



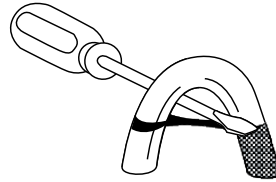
2. Cut along centre of the outer sheath as shown. Discard 80mm length of outer sheath.



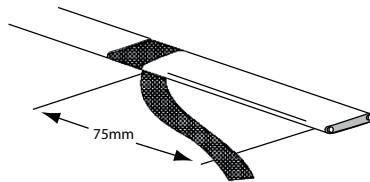
3. Push back from earth braid to create bulge.



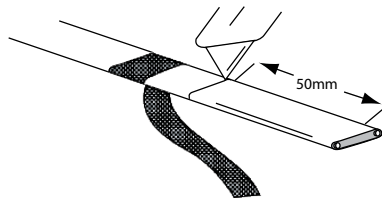
4. Use a small screwdriver to create an opening in the bulge.



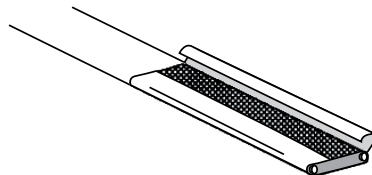
5. Gently bend the cable and feed the inner core through the braid opening.



6. Pull the braid tight to form a 'pig tail'.

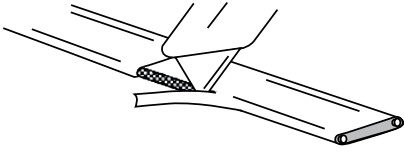


7. Score inner sheath 50mm from end and gently bend cable and release the 50mm sheath.

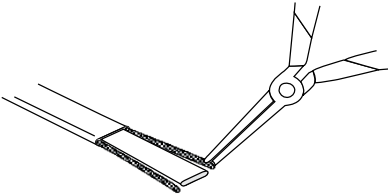


8. Carefully cut the centre of the inner jacket as shown, gently bend, remove section and discard.

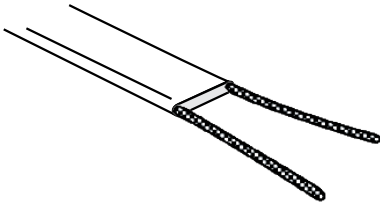




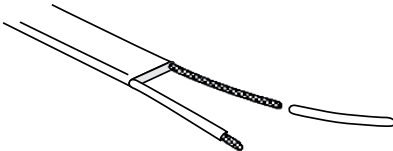
**9.** Work from the outside to expose the two conductors taking care not to cut them.



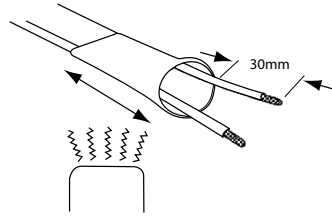
**10.** Starting from the ends pull each buss wire away from the inner core.



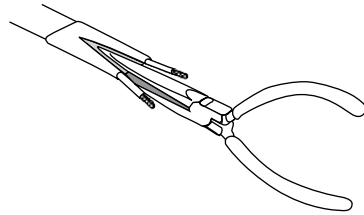
**11.** Remove and discard the inner core.



**12.** Slide the 40mm x 3mm diam heat shrinks over one of the buss wires and heat shrink into place. Use a suitable rated heat gun. Slide green/yellow sleeve over earth wire.



**13.** Slide black adhesive lined 50mm x 12mm dia heat shrink over the cable leaving 10mm of the wires exposed. Use a heat gun to shrink in place.



**14.** Pinch between the wires with long nose pliers to create a fork.

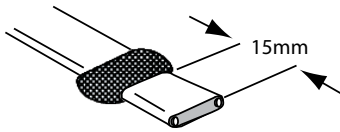
**15.** Crimp the two insulated buss splices to the conductors to facilitate connection to power.

**16.** Slide the 70mm length back over the terminated section including the green / yellow earth wire. Shrink in place over the base of the forked conductors. Slide the gland over the entire assembly and tighten in place.

**17.** The finished product should look like the example below.

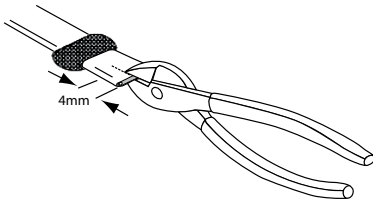


## Cable End Preparation:

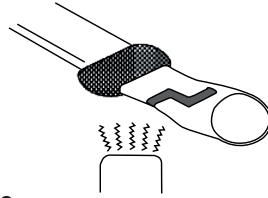


1. Use the same method used to expose and separate the earth braid as shown in the termination guide, 15MM from the end.

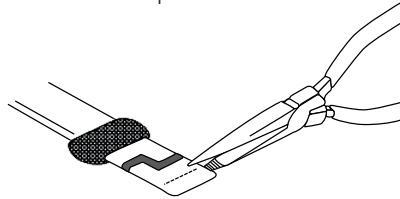
DO NOT EXPOSE BUSS WIRES.



2. Using side cutters, cut down the centre of the 15mm length of inner core and remove 4mm of one of the Buss wires to form a notch. This ensures separation of the buss wires.



3. Slide the 20mm length of black heat shrink over the cable end so that is a 5mm overhanging and shrink into place..



4. Apply the 50mm heat shrink tubing over the earth and 15mm overhang, and shrink into place using a suitable heat gun. Squeeze the ends together to ensure the inner glue adheres the sheath together. A bead of glue should be visible from the end of the cable, as shown below.



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## Thermogroupuk



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