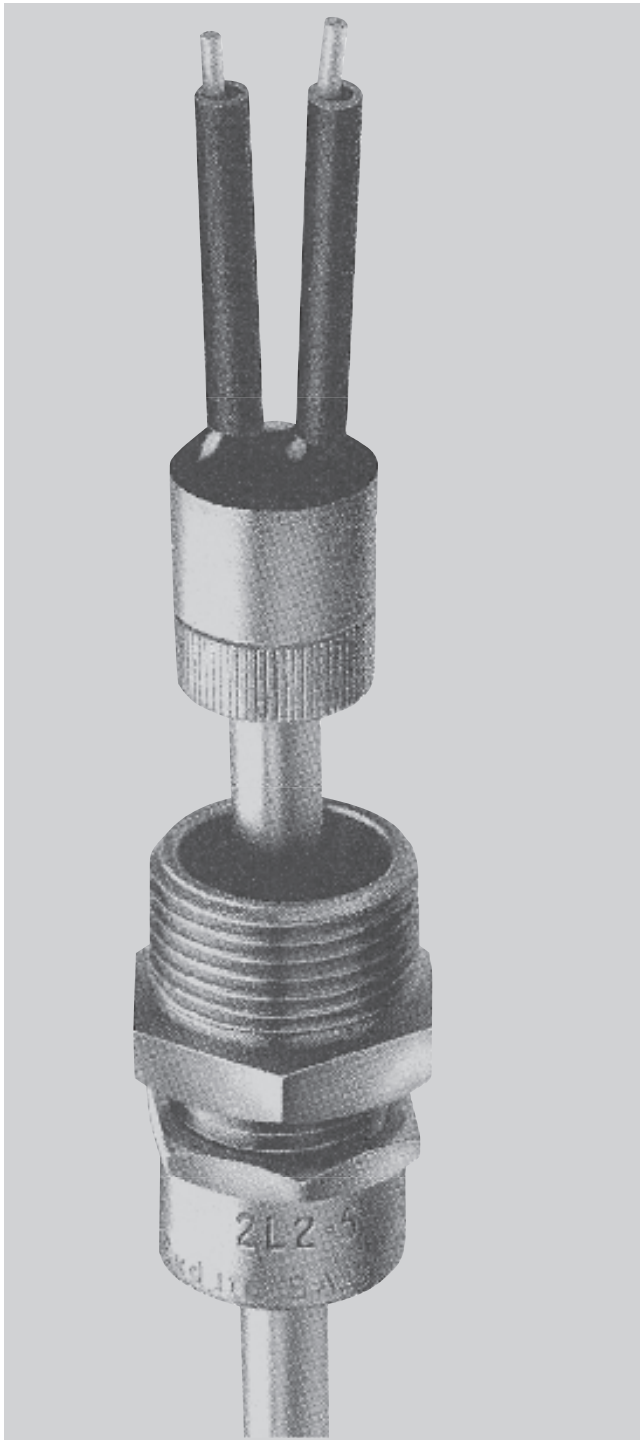
nVent

PYROTENAX

The Ultimate Fire Survival Cable System

PYRO MI FIRE SURVIVAL CABLE

Installation Recommendation for High Temperature Glazed Insulators for nVent Pyro MI Wiring Cables



The insulator consists basically of a brass screw-on pot with a glass filling medium and is suitable for use at temperatures between 150°C and 250°C.

Note: If this insulator is used for prolonged periods of time at normal ambient temperatures some reduction in the high initial value of insulation resistance may occur.

The component parts of the various sizes are shown in Table 1.

Terminating procedure

The cable sheath should be stripped to expose the conductors and the complete gland fitted.
The pot should then be screwed on until the sheath protrudes into it by 1-2mm. See Fig 3.
Precise stripping and pot fitting instructions can be found in Installation Recomendation
CDE-0923 Rev. 0-1/06.
Spread the conductors sufficiently to permit subsequent fitting of the PTFE sleeves, ensuring that they are not touching.

TABLE 1

Insulator Size (mm)	Insulator Components
20, 25, 32 & 40	Brass Pot
	*PTFE Sleeving
	Glazing Flux

*PTFE Sleeving is provided in 100mm lengths.
Longer Lengths are available to special order.

Using a blow torch, heat the cable to a dull red, approximately 150mm from the pot, working the heat towards the pot. The precise application of heat is neccessary for this type of insulator and is best achieved by use of either a small oxyacetylene set or a suitable propane blow torch. Pour the glazing flux into the mid - section of a suitable metal scoop and place the scoop against the side of a conductor, slightly above the lip of the pot. Heat the pot and conductors and the end of the scoop simultaneously. As the glazing flux begins to melt incline the scoop slightly so that the molten flux flows directly into the pot. See Fig 1.
The pot should be filled slowly, allowing the flux to cool and solidify progressively from the bottom, ensuring good adhesion to the pot and conductors and reducing shrinkage at the surface.
Overfill to form a dome, bubbling through the glazing flux indicates the cable was insufficiently heated before filling commenced. Should this occur, the end of the

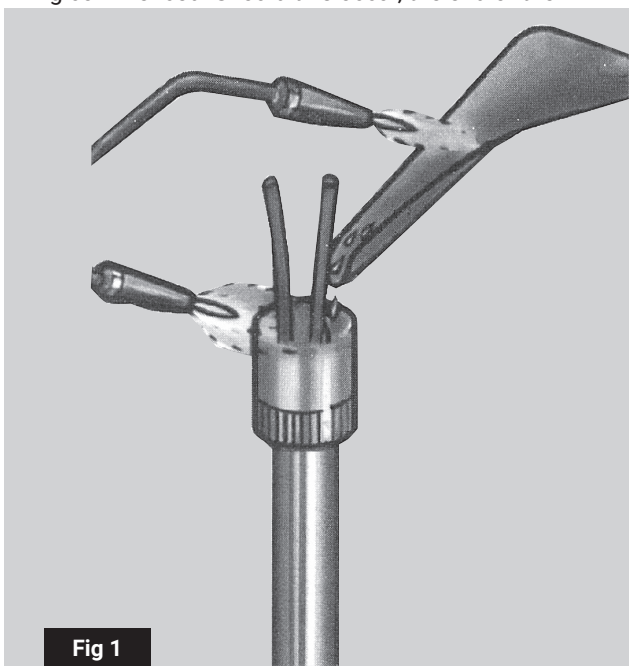


Fig 1

cable adjacent to the pot must be heated while the flux is maintained in a fluid state until the bubbling ceases.
The insulator is completed by sliding the PTFE sleeving over the exposed conductors until it contacts the domed glazing flux (Fig 4). The sleeving may be secured in position by means of a twist of wire around the end of the conductors.
One of the constituents of glazing flux is lead oxide which may be reduced to form free lead globules if excess heat is applied to the flux by means of a reducing flame. For

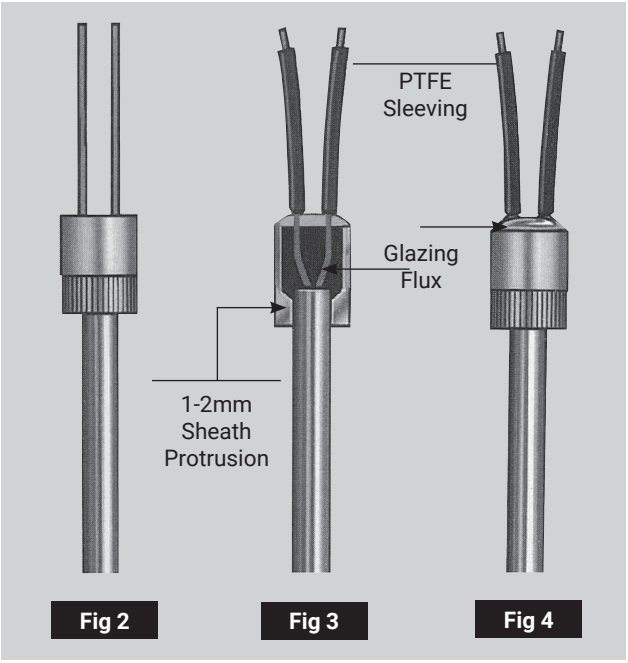


Fig 2 Fig 3 Fig 4

this reason additional care should be taken with single core cables above 50sq mm and an oxidising flame, (one with a short inner cone) should always be used. See Fig 1.
With glazed insulators care should always be taken to avoid the application of undue mechanical stress such as might be caused by excessive manipulation of the conductor tails. This could give rise to cracking of the relatively brittle glass filling medium.

Health and safety

The powdered glazing flux which is melted into the terminating pot to complete the 250°C insulator contains compounds of lead. It must be kept dry and extreme temperatures avoided. Adequate ventilation must be provided so that fumes cannot be inhaled.

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