

## TechTips | Terminating VFD Cable

### Terminating VFD Cable to VFD Drive or VFD Motor with **Conductive Gland**

These installation tips are provided for use by Alpha Wire to assist customers with the termination of their VFD cables to a VFD motor or drive. If using a conductive gland, follow instructions on this side. If using a non-conductive gland, follow the guidelines on the reverse side. Remember all circuits should be shut off to provide a safe working environment.

1. With the conductive gland not yet installed on the cable, insert the VFD cable into the VFD drive or VFD motor allowing more than sufficient length to reach the contact points.
2. Mark the jacket of the cable before the enclosure as per the gland manufacturer's recommendation.
3. Remove the VFD cable and place on a suitable surface to cut the jacket.
4. Using a cutting tool, cut the outer jacket around its circumference where you marked in step 2 above. Cut to the shield, but not through the shield.
5. Following the gland manufacturer's recommendation, mark the braid shield the distance from the end of the newly cut jacket to allow sufficient contact with the gland.
6. Carefully cut the braid shield closest at the mark without cutting any insulation in the core.
7. Remove the braid shield from cut to cable end and discard.
8. Insert the cable into the gland and position so that the jacket is completely inserted and the gland will make 360° contact with the braid.
9. Insert the cable with gland into the VFD drive or VFD motor.
10. Tighten the gland nuts as per manufacturer's specification.
11. Route and trim conductors to the appropriate terminals assuring sufficient slack for possible phase inversion.
12. Strip insulation from conductors and terminate motor leads as per manufacturer's recommendation.
13. Terminate ground per the manufacturer's recommendation.

**Series V VFD**  
Cable



**Series V-Flex**  
Cable



**Flexible Motor**  
Supply Cable



**Series SF**  
Servo Cable



## TechTips | Terminating VFD Cable

### Terminating VFD Cable to VFD Drive or VFD Motor with **Non-Conductive Gland**

1. Insert the VFD cable into the VFD drive or VFD motor allowing more than sufficient length to reach the contact points.
2. Mark the jacket of the cable after the gland and inside the enclosure.
3. Remove the VFD cable and place on a suitable surface to cut the jacket.
4. Using a cutting tool, cut the outer jacket around its circumference where you marked in step 2 above. Cut to the shield, but not through the shield.
5. Push back the braid shield to expose the foil shield.
6. Carefully cut the foil shield closest to the jacket, without cutting any insulation in the core.
7. Remove the foil shield and discard.
8. Push the braid shield back into its original position over the core.
9. Open a section of the braid where it meets the jacket so that the core can be pulled through.
10. Carefully pull the core, minus drain wire(s) through the braid shield.
11. Compress the braid and drain wire(s) which are now to the side of the core.
12. Apply heat shrink tubing to the braid with drain wire(s).
13. Recover (shrink) the heat shrink tubing by applying heat per the heat shrink tubing specification.
14. Combine the braid and newly applied heat shrink with the core.
15. Apply 3 – 5 inches of heat shrink with half covering the jacketed cable and half covering the combined braid/core.
16. Recover (shrink) the heat shrink tubing by applying heat per the heat shrink tubing specification.
17. Insert the dressed cable into the VFD drive or VFD motor.
18. Route and trim conductors to the appropriate terminals assuring sufficient slack for possible phase inversion.
19. Strip insulation from conductors and terminate motor leads as per manufacturer's recommendation.
20. Terminate ground per the manufacturer's recommendation.

#### Note

All work must be initiated in a safe environment with personal safety devices and all circuits in and near the system OFF and in a non-live state.