

# 4TCH JUNCTION KIT

This kit allows the connection between the power conductors, the ground conductor and signal cables in the jacketed cable from the pump to the drop cable coming from the control module.

The junction, when properly performed, provides:

- Electrical continuity in the power phases and the ground wire
- Electrical continuity in the two signal wires,
- Insulation between the phases, between each phase and ground, and between each phase and the signal wires
- Watertight seal up to a maximum depth of 150 m / 500 ft submergence.

The kit consists of:





- qty. 3 connectors for cables up to 2.5 sq. mm / 14 AWG (signal) in red.
- qty. 5 connectors for cables up to 2.5 sq. mm / 14 AWG (power) in blue.
- qty. 5 connectors for cables up to 6 mm<sup>2</sup> / 10 AWG (power) in yellow.

The type of connector used corresponds to the section of cable that you are joining (see Sections table in the installation and operating manual).

- A resin container sleeve (with cap on the cable jacket) to contain and protect the junction and casting resin.
- A jar of resin, a jar of hardener, and a mixing palette.

Regardless of the section being joined, the minimum diameter of the cable junction should be (in order to prevent leakage of the sealing resin during the casting) 12mm / 1/2 in. for the power cable (big hole) and 8 mm / 5/16 in. for the signal cable (small hole).

## Procedure for proper splicing

<p>Slide the resin container cap over the pump lead wire jacket oriented as shown. Strip the wires from the jacket to a length of 50 mm / 2 in. and cut into staggered lengths as shown. Strip the ends of the pump lead wires and the drop cable wires.</p>	
<p>Slide the orange resin container sleeve onto the two drop cables (power and signal) as shown. Make the connection between the pump lead wires and drop cables with the crimp connectors provided.</p>	
<p>Pulling from the drop cables, slide the orange resin container sleeve so that it is centered over the electrical connections.</p>	
<p>Orient the junction so that it is upright with the drop cables facing down and the pump lead cable facing up.</p>	
<p>Pour the epoxy resin into the catalyst and mix thoroughly using the mixing palette.</p>	
<p>Pour the resin mixture into the orange resin container sleeve to within approximately 10 mm / 1/4 in. of the top.</p>	
<p>Slide the resin container cap down the pump lead cable to close the orange resin container sleeve.</p>	
<p>Wait at least 3 hours (with an ambient temperature above 16 ° C / 60 ° F) before moving the joint.</p>	

**After completing the connection, the integrity and continuity of the ground connection must be checked prior to use. A resistance measurement taken between the motor housing / pump and the ground terminal of the cable connection must provide a value of less than 3 Ohm.**

**After joining the cables and placing the pump in the well you must perform a test of insulation prior to making the connections inside the Control Module: wire the two power cables together and, applying a voltage of 500V, check insulation resistance from the ground to verify a resistance higher than 100 M Ohm. Wire the two signal cables together and, applying a voltage of 500V, check insulation resistance from the ground to verify a resistance higher than 100 M Ohm.**