AQUAMONIX
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Technical Bulletin Series
Magnetic Flow Meters

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Emflux Flow Meter – Cable Join Procedure

Aquamonix Environmental Systems strongly recommends that Emflux flow meter cables are repaired, joined or extended only by trained TES Service Technicians. By having Emflux cables repaired, joined or extended by TES Service Technicians ensures the meter remains compliant with AS4747 and the measurement integrity maintained.

In cases of emergency breakdown where a TES Service Technician is not available the below procedure can be used. It is highly recommended that where Emflux flow meter cables have been repaired, joined or extended by others the flow meter is later verified and validated by a TES Service Technician.

Above Ground Procedure (Junction Box)

Materials,

- Length of Emflux coil cable and 2 x length of signal cable (for meters fitted with PNF detector.
- 2 x Junction boxes.
- 6 x Cable entry glands suitable for cables and junction boxes selected.
- 9 x Terminals and mounting rail.
- Encapsulating potting material (ERAPOL CCM40A or similar).

Procedure,

1. Coil cable (orange cable) needs to be joined in separate junction box to the signal and PNF cable.

2. Mount junction boxes, fit terminals and cable glands, label boxes (ie meter s/n, coil, signal - PNF)

3. Cut flow meter coil cable, signal cable & PNF cable to length and remove any damaged ends.

4. Install cable into junction boxes and cut the outer sheath back to expose individual cores. (Ensure that screen on signal and PNF cable are intact and the inner sheath is not cut).

5. Strip back the inner sheath from each core used sufficient for bootlace ferrules and crimp.

6. Terminate the used cores and shields ensuring that colours match correctly.

7. Test and verify meter is working correctly before encapsulating.

8. Once meter is verified and tested encapsulate junction boxes with potting compound to give IP68 Rating.

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Below Ground

Materials,

- Length of Emflux coil cable and 2 x length of signal cable (1 x length of signal cable for meters fitted with PNF detector).
- 3 x Submarine Join Kits - Jointmaster JTRJK1 or similar (2 x kits for meters fitted with PNF detector).
- Join crimps.

Procedure,

1. Read and understand the full instructions supplied with the kit.
2. Cut flow coil cable, signal cable & PNF cable to length and remove any damaged ends.
3. Using the emery cloth and electro-wipes scour / clean all cable surfaces to ensure correct adhesion.
4. Cut individual used cores including shields to length as indicated in instructions provided
5. Strip back the inner sheath from each core and join them including shields using the cable crimps – ensuring that cable colours match correctly.
6. Assemble kit as per instructions
7. Test and verify meter is working correctly before encapsulating.
8. Once meter is verified and tested encapsulate junction boxes with potting compound to give IP68 Rating.