INSTRUCTION MANUAL

ELECTRICAL CABLE SPLICE KIT

This product should be installed and operated only by qualified personnel. Its misuse is potentially dangerous. The Company makes no warranty as to the information furnished in this manual and assumes no liability for damages resulting from the installation or use of this product. The information herein is subject to change without notification.

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NOVA METRIX

TABLE OF CONTENTS

1 INTRODUCTION

The following instructions can be applied to the following splice kit models:

- FR-1135050900
- FR-1135050900A
- FR-1135050900B
- FR-1135050900BV
- FR-1135050900C
- FR-1135050900D
- FR-1135050900E
- FR-1135050900EV
- FR-1135050900F

2 SPLICE KIT

All splice kits include:

- One (1) splice sleeve
- Two (2) connectors

Splice kits FR-1135050900BV & FR-1135050900EV also include:

- One (1) capillary metal tube

Note:

Roctest recommends using the 3M™ Scotchcast™ electrical insulating Resin 4A. See detail here: http://bit.ly/M4v8H6. There is no resin included in the splice kit. The 3M™ Scotchcast™ electrical insulating Resin 4A is considered a Dangerous Good and since there are restrictions of the Transportation of Dangerous Goods, Roctest recommends getting the resin at its point of use when possible. However, Roctest can provide the resin as a separate item if ground shipment is possible (Roctest P/N: 05-0027C0080).

3 SPLICING PROCEDURE

For non-vented electrical cables (most common), see section 3.1

For vented electrical cables, see section 3.2

3.1 NON-VENTED ELECTRICAL CABLE

Different splice kit models are available as explained on section 1 and as illustrated on Figure 1 to 4 below. However the splicing method is almost the same for all type of splice kit as explained in the following step. Small modifications can be done on field according to the model of cable and splice kit used.

1. Cut carefully both ends of cable to splice.
2. Clean carefully both ends of the electric cable to be spliced over approximately 20 cm.
3. Slide the free connector on one end of the cable. On the other end, slip on the splice sleeve - with the second connector screwed on it - until the end of the cable exceeds the sleeve approximately 30 cm (see illustration "A").
4. On both ends of the cable, remove approximately 3 cm of the outer jacket. Remove 1 cm of insulation jacket on each (see illustration "B"). Do not get rid of the braid shield if it exists, as it will be reconnected afterwards. With the Roctest IRC-41A cable or similar, discard the aluminum foil but keep the drain wire.

5. Make the connection of each conductor respecting the colour code. For best results, the use of a soldering iron with soldering wire is highly recommended. Skilled personnel should conduct the soldering operation in order to avoid "cold" solders. Isolate each conductor with heat shrink tubing (3/32” diameter) or, if not available, electrical tape (see illustration "D").
6. Form a twisted wire with braid shield or drain wire and solder each end together, again using a soldering iron.
7. If applicable, attach each end of central reinforcement core suitably, in order to restore mechanical strength of cable, either by using a suitable crimp, or brazing. In the latter case, be careful not to damage the conductors when using the brazing torch.
8. Tie all the connections together by using electrical tape (see illustration "E").
9. Slide and center the splice sleeve over the connections and screw tight the first connector to the end of the sleeve.
10. Prepare the resin as per the manufacturer’s instruction.
11. When the resin is ready, hold the sleeve vertically and pour it in the opening left by the unscrewed connector.
12. When filled up, slide and screw the second connector.
13. If you have plug on sleeve as illustrated on Figure 4 then you can screw both connectors and fill the resin by one hole until resin evacuated from the second hole. Then screw both plugs and let the resin dry.

3.2 VENTED ELECTRICAL CABLE

1. Cut carefully both ends of cable to splice.
2. Clean carefully both ends of the electric cable to be spliced over approximately 20 cm.
3. Slide the free connector on one end of the cable. On the other end, slip on the splice sleeve - with the second connector screwed on it -until the end of the cable exceeds the sleeve approximately 30 cm (see illustration "A").
4. On both ends of the cable, remove approximately 3 cm of the outer jacket. Remove 1 cm of insulation jacket on each conductor and of one end of vent tube(s) (see illustration "B"). Do not get rid of the vent tube(s), braid shield if they exist, as they will be reconnected afterwards. With an IRC-41A cable or similar, discard the aluminium foil but keep the drain wire.
5. Make sure about 2 cm of heat shrink (1/16” diameter) is slid on one side of each vent tube and insert the capillary metal tube in both ends of each vent tube, respecting the colour code (see illustration “C”). Pull the shrink tube to overlap both ends of the vent tube and heat it up to complete the connection of the vent tube.
6. Make the connection of each conductor respecting the colour code. For best results, the use of a soldering iron with soldering wire is highly recommended. Skilled personnel should conduct the soldering operation in order to avoid "cold" solders. Isolate each conductor with heat shrink tubing (3/32” diameter) or, if not available, electrical tape (see illustration "D").

7. Form a twisted wire with braid shield or drain wire and solder each end together, again using a soldering iron.
8. Attach together each end of central reinforcement core suitably, in order to restore mechanical strength of cable, either by using a suitable crimp, or brazing. Be careful not to damage the conductors when using the brazing torch.
9. Tie all the connections together by using electrical tape (see illustration "E").
10. Slide and center the splice sleeve over the connections and screw tight the first connector to the end of the sleeve (if not already in place).
11. Mix the resin as per the manufacturer's instruction.
12. When the resin is ready, hold the sleeve vertically and pour the resin in the opening left by the unscrewed connector.
13. When filled up, slide and screw the second connector.

4 FIGURES

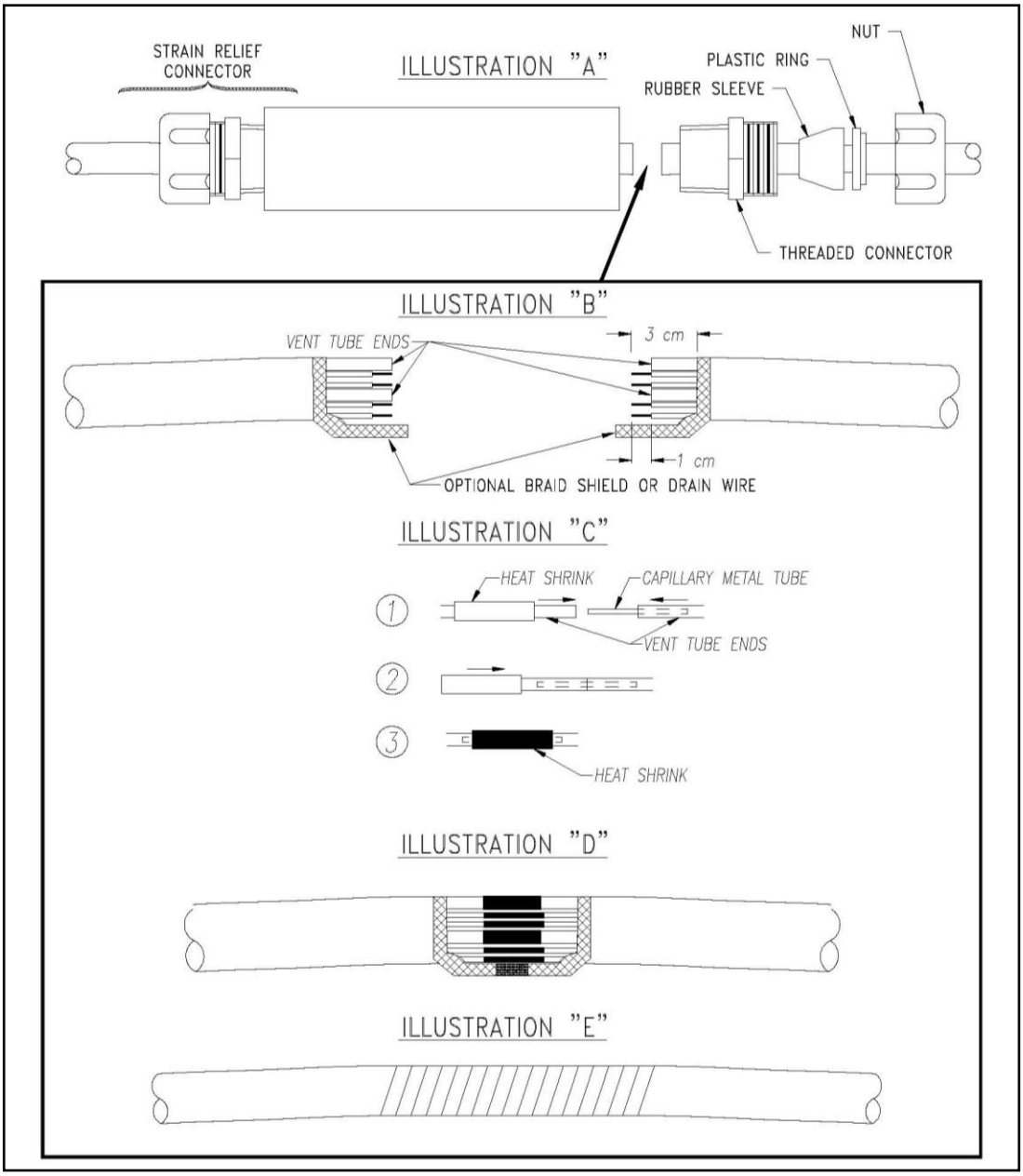

Figure 1: Steps for cable splicing with T&B connectors

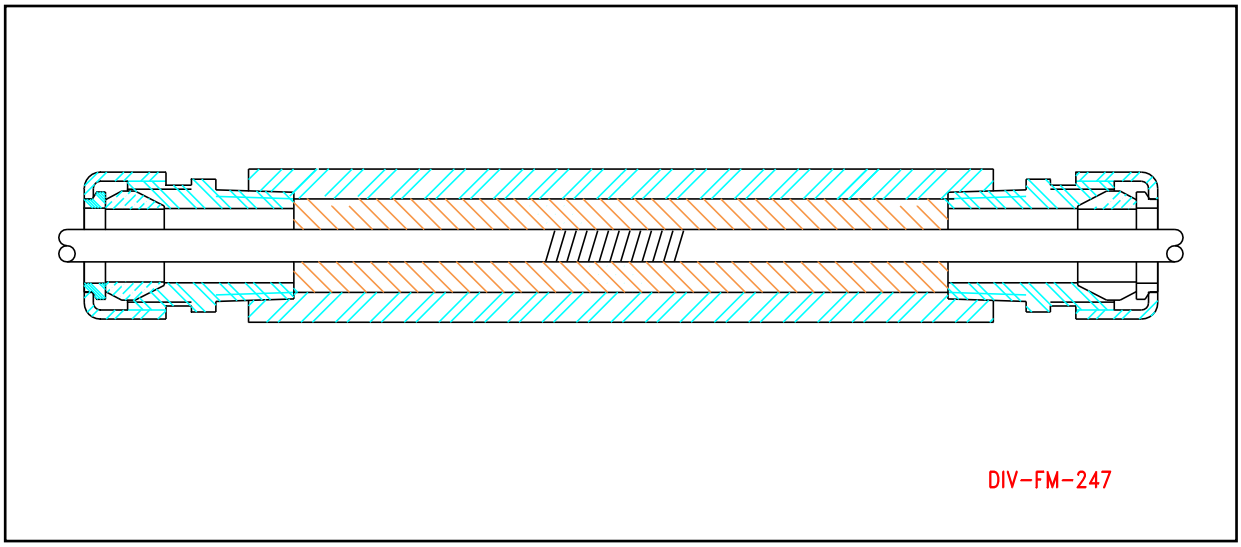

Figure 2: Cable splicing assembly with T&B (metal) connectors (FR-1135050900C)

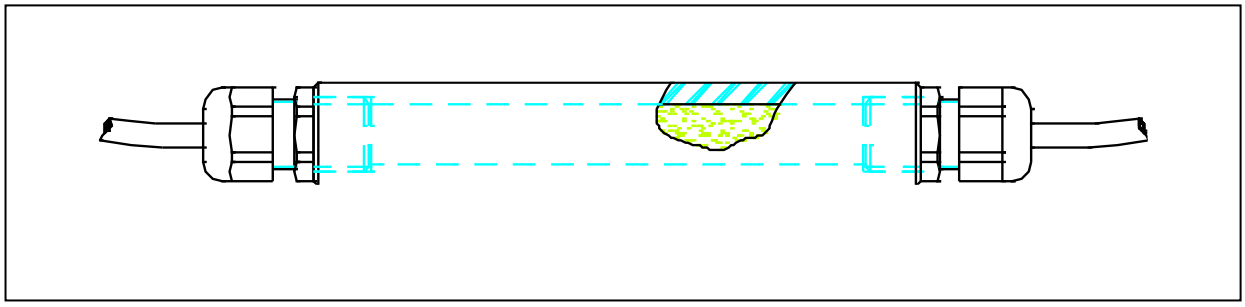

Figure 3: Cable splicing assembly with PVC connectors for IRC-41A cable (FR-1135050900)

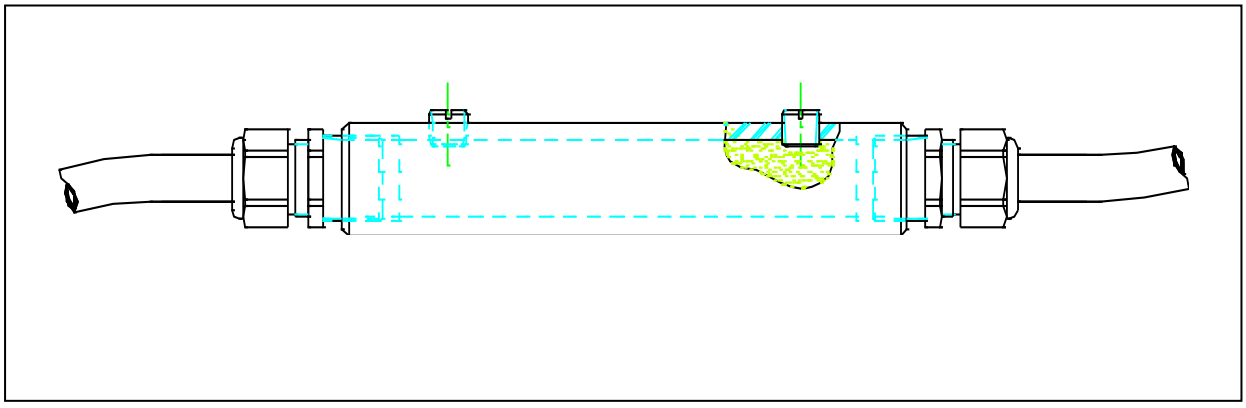

Figure 4: Cable splicing assembly with IRC-390 cable with vented plug (FR-1135050900E)