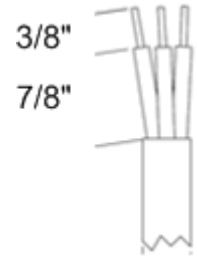


Connecting evoQ₄ Output Module to Bare Wire Endpoints

The following procedure illustrates how to connect a bare wire endpoint to an evoQ₄ output module in the field.

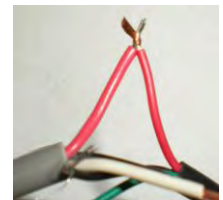
The procedure involves the following main steps:

1. Wire preparation
2. Wire splicing
3. Splice moisture proofing



Tools and Materials:

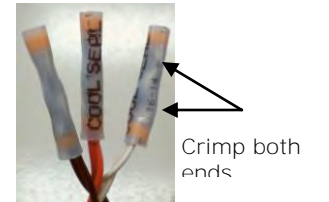
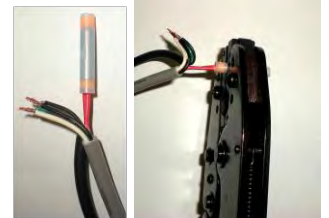
- Wire stripper – Klein Tools Katapult Wire Stripper AWG 18 to 22
- Splice crimping tool - Control Cycle Cat. No. 94230, by FTZ Industries
- Splices - Cool Seal Butt Splice 16-14AWG Cat. No. 33330, by FTZ Industries Elster AMCO Water Part No.2523Q0014
- Grease Lithium/Multi-Purpose – MAG1 3oz Part No. 712
- Small Connection Box, Elster AMCO Water Part No.BQA0375
- Grease Gun Kit: Plews-LubriMatic® 30-132 or equivalent (optional)



Procedure:

For both outdoors, and pit, applications use the following installation process:

1. Insure cable gland bulkhead nut is tight, leave gland nut loose for cable feed through.
2. Insert cables for connections through gland at opposite ends of Connection Box.
3. Prepare the cable wires:
 - a. Cut the evoQ4 cable and the endpoint cable to the needed combined length of installation. Leave enough length for required bends or pit mount.
 - b. Use the Katapult wire stripper to remove 1¼" of jacket from each cable end using the #8 blade position.
 - c. Use the Katapult wire stripper to strip each wire so 3/8" of bare wire is exposed using the #20 blade position. **Do not nick the wires.**
4. Pair and twist wires together per Device Wiring Matrix (below)
5. Insert the twisted pairs each into one end of the butt splice connector ensuring that the wire insulation is inside the connector.
6. Crimp the twisted wire assembly using the ratchet crimp tool by placing the splice metal shell and wire assembly firmly into the center position [1.5-2.5 / 16-14]. Crimp the unused open end of the butt splice connector.
7. Repeat for all wire pairs.
8. Center crimp cable assemblies within the Small Connection Box by adjusting the gland routed cables and bending butt-splice to lay as shown to ensure complete grease coverage.
9. Tighten gland nut to compress seal around cables at both ends.
10. Fill the Small Connection Box assembly with one tube of grease (required for pit applications) to insure the crimps are completely surrounded by the grease as shown in picture to the right.
11. Crown grease above rim of box.
12. Place cover over and tighten to complete the connection seal.





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www.plews-edelmann.com

DEVICE	EvoQ4 MX-39 PULSER (DIGITAL)				EvoQ4 MX-39 ENCODER (Elster protocol)		
	G	B	R	W	R	W	B
	Common	Tamper	Ch. 1	Ch. 2	Data	Power	Common
Fully tested for compatibility							
Acalra MTU	Black	White	Red	N/A	White	Red	Black
Datamatic Firefly Mosaic	Black	Green	Blue	N/A	Green	Red	Black
Itron 60W	N/A	N/A	N/A	N/A	Red	Black	White
Itron 60WP	White	Black	Red	N/A	N/A	N/A	N/A
Itron 100WR	N/A	N/A	N/A	N/A	Brown	Grey	Yellow
Itron 100WPR	Grey	Yellow	Brown	N/A	N/A	N/A	N/A
Itron 200WM	Red	Black	White	N/A	Red	Black	White
Itron 200WP	Red	Black	White	N/A	Red	Black	White
Itron In Line Connector (ILC)	Bare	Black	Red	N/A	Red	Black	Bare
REX Fixed or Remote Pit	N/A	N/A	N/A	N/A	Black	Red	Bare
Pitpad	N/A	N/A	N/A	N/A	Red	Green	Black
Datamatic Firefly	Brown	CUT	Blue	N/A	White	Red	Black
Evolution™ Pulser	Red	Green	Black	N/A	N/A	N/A	N/A
Evolution™ Encoder	N/A	N/A	N/A	N/A	Red	Green	Black
Hexagram Star MTU	Red	None	Black White	N/A	White	Red	Black
Compatibility testing NOT completed							
Itron 60WR + Cable	N/A	N/A	N/A	N/A	Brown	Grey	Yellow
Itron 60WR Fixed	N/A	N/A	N/A	N/A	Brown	Grey	Yellow
Itron 60WRP + Cable	Grey	Yellow	Brown	Brown	N/A	N/A	N/A
Itron 60WRP Fixed	Grey	Yellow	Brown	Brown	N/A	N/A	N/A
Trace Fixed or Remote - Digital Only	Bare	Black	Red	N/A	N/A	N/A	N/A
Trace Pit - Digital Only	Bare	Black	Red	N/A	N/A	N/A	N/A
Mars Smart Radio	Black	Red	Green	N/A	Green	Red	Black
Ramar TransPondIT	2 Red	3 Green	1 Black	N/A	3 Red	1 Green	2 Black

DEVICE	EvoQ4 MX-39 PULSER (DIGITAL)				EvoQ4 MX-39 ENCODER (Sensus Protocol)		
	G	B	R	W	R	W	B
	Common	Tamper	Ch. 1	Ch. 2	Data	Power	Common
Neptune R900	N/A	N/A	N/A	N/A	Red	Black	Green
Badger ADE	N/A	N/A	N/A	N/A	Green	Red	Black
Sensus MXU510R 3 wire configuration; For 2 wire, contact Elster Tech Support	N/A	N/A	N/A	N/A	Green	Red	Black

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