TECH NOTES

FT-32XX with MODBUS TCP/IP

RJ-45 CONNECTION RETROFIT KIT (ONICON Part# 001-48749)

OVERVIEW

This procedure provides instructions for installing the RJ-45 connection retrofit kit for FT-32XX flow meters that have MODBUS TCP/IP communication so that the RJ-45 connection can be made outside of the wiring compartment.

RECOMMENDED TOOLS

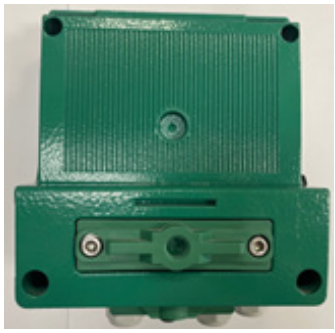
- 4 mm hex key
- Adjustable wrench or pliers

INSTALLATION PROCEDURE

IMPORTANT NOTES

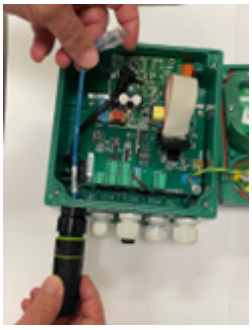
- ***If flow meter is already in service, be sure to disconnect power before proceeding!***
- ***If transmitter is already installed on wall bracket, remove it from the bracket at this time and place it on a stable flat surface.***

This kit is intended for meters with remote mount electronics. If your meter has integral mount, consider upgrading to remote mount or you may need to rotate the transmitter 90 degrees to the alternate mounting location in order to provide clearance for the external RJ-45 coupler.



1. Loosen the 4x4 mm hex screws to open the wiring compartment.
2. Disconnect the inline RJ-45 coupler.
3. Using a wrench or pliers, remove the far left cable gland.
4. Flip the transmitter over and loosen the 4x4 mm hex screws to open the enclosure case.

5. Carefully open the enclosure and disconnect the display ribbon cable.
6. Unplug the power connector and RJ-45 connector at the TCP/IP module.

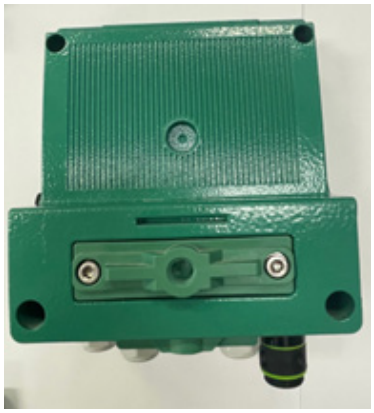


7. Thread the adapter into the opening where the cable gland was removed (ensure o-ring is in place) and tighten with wrench or pliers to ensure a water-tight seal.

8. Insert the patch cable through the housing/adapter and connect to the external RJ-45 coupler.

9. Thread the external RJ-45 coupler into the adapter while rotating the patch cable (avoid twisting the cable). It should be hand-tightened to seal against the green o-ring. Not too tight!

10. Reconnect the RJ-45 connector and power connector at the TCP/IP module (from step 6)



11. Reconnect display ribbon cable and re-assemble the case. Avoid pinching the ground wire for wire compartment cover. Tighten the 4x4 mm hex screws in three incremental steps using a cross pattern to ensure a proper seal around the entire perimeter of the enclosure.

12. Now re-install the transmitter on the mounting bracket before connecting the RJ-45 field cable to the transmitter.

13. When ready to connect the TCP/IP network, first thread the nut, then slip the green cable seal over the cable, then the connection cover as shown.

14. Carefully insert the green cable seal into the end of the connection cover as shown - use caution to avoid damaging the flexible fingers on the end.

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15. Connect the field cable to the RJ-45 coupler, then carefully thread the connection cover onto the coupler until it is finger tight against the green o-ring. Use caution to avoid twisting the cable.
16. Thread the nut completely onto the connection cover to seal the cable gland - use caution to avoid twisting the cable.
17. Connect or reconnect other wires as needed from the meter body (if applicable) and then reconnect 24 VDC power to the transmitter.
18. Re-install the wiring cover using a 4 mm hex key.

Once the external cable connection is made, ensure adequate clearance from other devices to prevent stress on the assembly. If the transmitter is ever shipped to the factory for service, the connection cover assembly should be removed to prevent breakage during transit.

If you have any questions or need assistance with this procedure, please contact ONICON Technical Support at (727) 447-6140 or techsupport@onicon.com.