Level Sensor Tip and Fiber Optic Replacement (Digital)

XT15/XT15I

Service Procedure
X5S011
Revised: 10/12/16

1. **Unplug the Instrument.**

2. **Unscrew the four screws located on each side of the cabinet back. Lift up the cabinet back while removing it from the Instrument.**

3. **Open the electrical box by removing the two screws located on top of the Instrument.**

4. **Remove the cable key and unplug the fiber optic cable from the SICK Sensor Module. Snip the cable ties that hold the Fiber Optic Cable to the electrical conduit that runs from the back of the vessel.**

Figure 1

5. **Remove the Level Sensor fitting from the back of the vessel.**

Figure 2

6. **Install the new level sensor fitting provided by ANKOM.**

7. **Insert the fiber optic cable into the back of the SICK Sensor Module and secure the two cables using the key. The key must snap into the fittings. Gently pull on each cable to make sure they are secure.**

8. Retrain the SICK Sensor Module by pushing and holding the white button. The light will turn off and then turn back on.

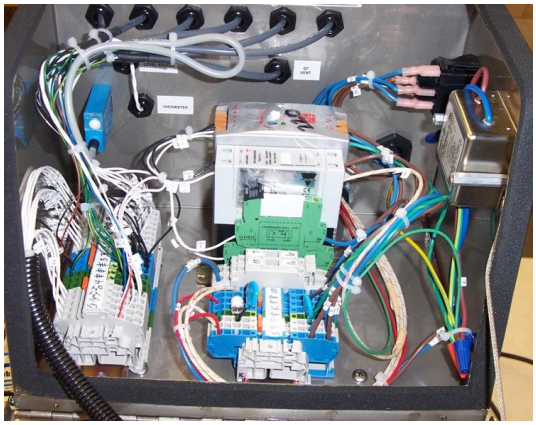

Figure 3

9. The Instrument is ready for testing. Begin an extraction and verify that the level sensor detects the solvent. (The light on the SICK module will be on when the vessel is empty, and off when the SICK Sensor Module detects solvent.)

Very important: As soon as there is pressure in the vessel, apply a soap solution to all threads on the vessel fitting. Make sure that there are no leaks at the fitting or where the cable attaches to the fitting. Contact ANKOM with any questions.

Note: If this procedure did not fix the level sensor problem continue onto step 10.

Figure 4

10. Detach the wires from the terminal block.

a. Locate the cable that extends from the Level Sensor Module and cut any cable ties that bundle it with other cables.

   Note: This cable contains wires #3, #4 and #I1 which attach to a terminal block.

b. Detach these wires from the terminal block by inserting and pushing a screwdriver tip into the square slot on the terminal block that is next to the wire you desire to move. This will release the wire. Note the location from which they were removed.

11. Remove the cable key from the Level Sensor Module to remove the Fiber Optic Cable. Remove the black nut on the Level Sensor Module on the back of the electrical cabinet and remove the Module from the electrical cabinet.

12. Replace the Level Sensor Module.

Note: Two models of Level Sensor Modules exist. The SICK Level Sensor Module is blue shown in Figure 5. The Banner Level Sensor Module is yellow shown in Figure 6.

a. Mount the new Module from the inside of the cabinet with the white button (if SICK brand) or black button (if Banner brand) in the "UP" position.

b. Secure the Module from the outside of the cabinet using the red foam silicon washer, the metal washer and the plastic nut.

Figure 5

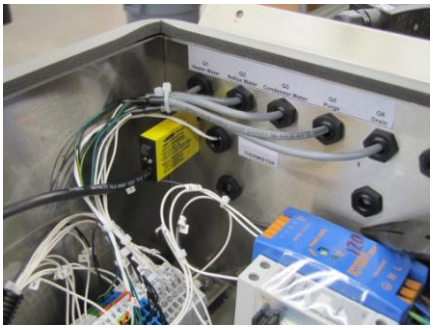

Figure 6

13. Insert the Fiber Optic Cable clip to secure the Fiber Optic Cable to the back of the Level Sensor Module. Figure 7 shows the SICK brand. Figures 8 and 9 show the Banner brand.

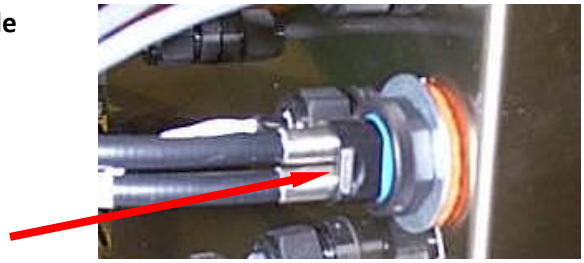

Figure 7

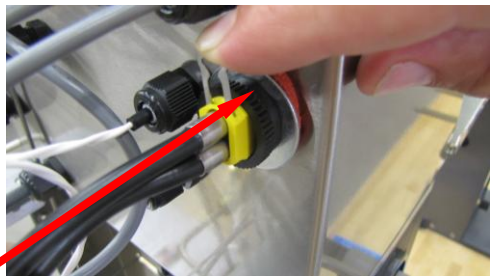

Figure 8

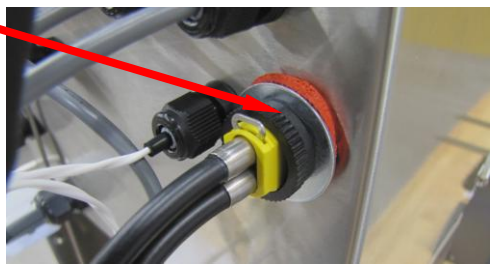

Figure 9

14. Connect the wires #3, #4, and #I1 from the Level Sensor Module to the terminal block. Make sure that the wires are secure by gently pulling on them. (NOTE: For both SICK and Banner modules, white wire is I6, Blue wire is #4 and Brown and Black are #3)

15. Retrain the Level Sensor Module.

a. Refer back to steps 8 and 9 to retrain the SICK Level Sensor Module.

b. For the Banner Level Sensor Module,(SME312FV-27141,) press and hold the black button for 2 seconds or until the red and yellow lights come on. See Figure 10.

c. When the red and yellow lights come on, press the black button two more times and the red light should turn green and the yellow light should turn off. See Figure 11.

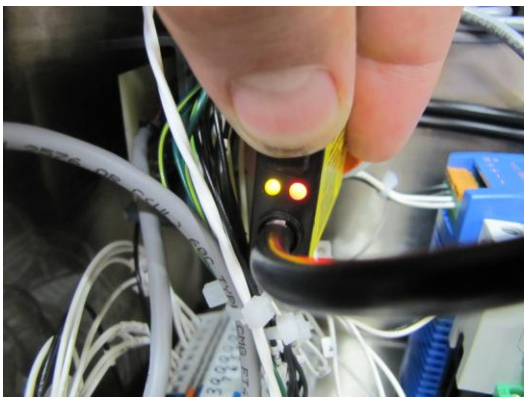

Figure 10

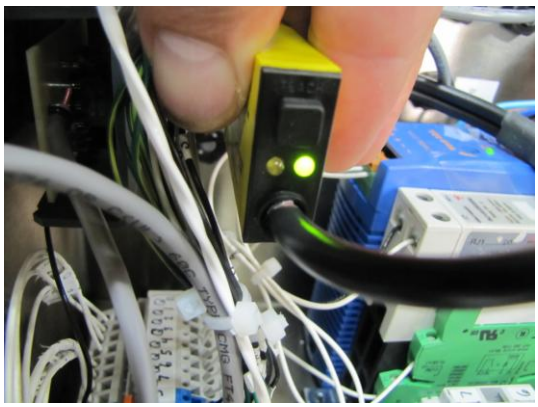

Figure 11

Note: For Banner level sensor module SME312FV, you need to "teach the sensor" both the wet and the dry conditions. Press and hold the black "teach" button for 2 seconds or until the red and yellow lights come on. See Figure 10.

When the red light comes on, submerge the sensor tip in solution and press Teach. Remove the tip from water and press Teach again.

16. Close the cabinet back.

a. With the green light on, the Banner Level Sensor Module has been trained and the cabinet can be closed up. Close the cabinet back with the four screws removed in step 2.

b. Close the electrical box with the two screws removed in step 3.

Your XT15/XT15I is now ready to be put back into service.