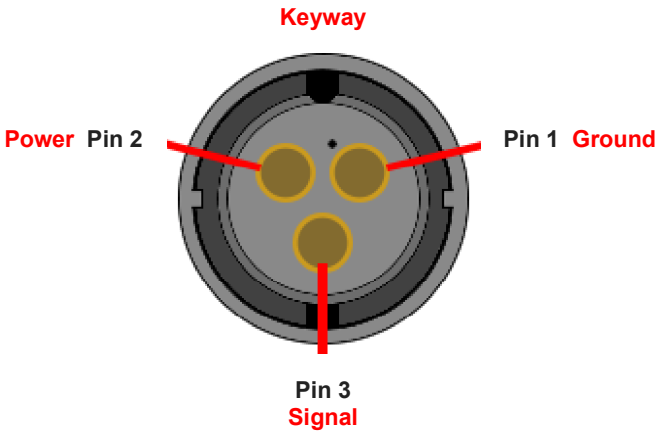
How to Test Flow Meter and Granular Encoder Cables

Information

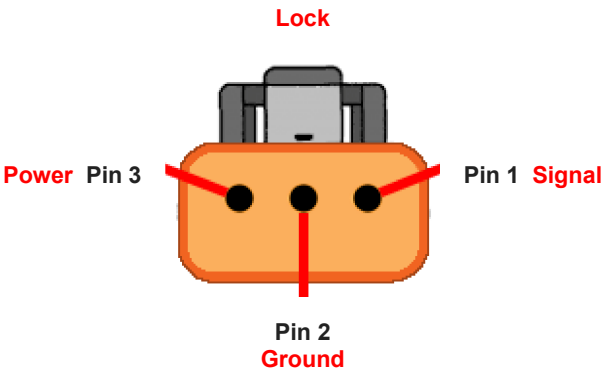
Details

Flow Meter / Encoder Cable Connectors (Cable Side)

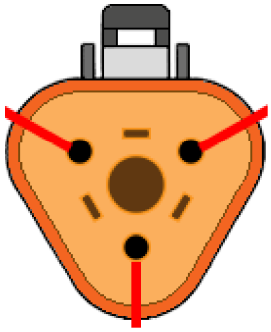
3-Pin Conxall



3-Pin Flat Deutsch

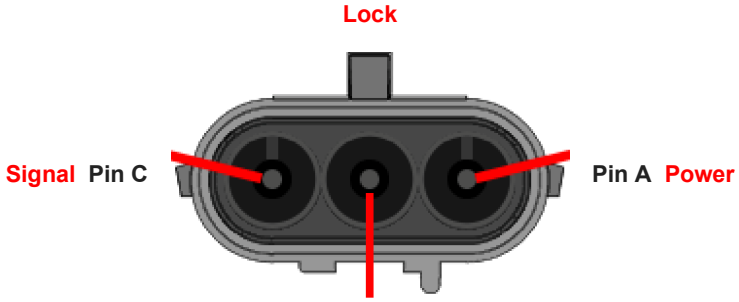


3-Pin Triangular Deutsch

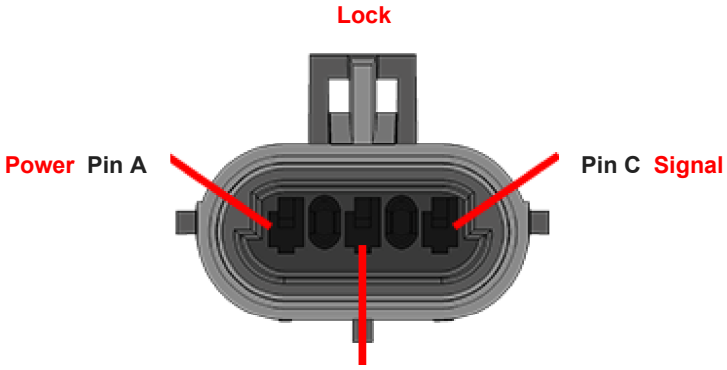


Pin C
Signal

3-Pin Weather Pack



3-Pin Metri-Pack



Test Procedure

1. Disconnect the cable from the flow meter / encoder.
2. Hold the cable connector (cable side) so that the keyway / lock is in the 12 o'clock position.
3. With a voltmeter, test the voltage from Power to Ground. It should register 4.5 to 16 VDC.

Note: *AGCO machines typically provide 12 VDC to the flow meter / encoder. Raven systems will typically provide 5 volts to the flow meter / encoder. Please check the voltage specifications of the flow meter / encoder being used to ensure the power supply voltage is correct for the current application.*

4. Test the voltage from the Ground to the Signal. It should register 5 VDC.

5. If voltage is correct, input the following calibration values for the product node experiencing the "no rate" issue, or in the SCS console.

Liquid	
Meter Cal	**1**
Granular	
Density	**1**
Spreader Constant	**0**

Note: *If you do not see voltage, check the next connection towards the controller or node to ensure proper voltages are present. If you find that you have the correct voltage at that connection, check the previous cable for damage to rule out having a bad or broken cable.*

6. Place the system in **Manual**.
7. Zero out total volume in the tally register or on the SCS console.
8. Turn at least one boom section to the "ON" position as well as the master switch.
    - It may be necessary to try multiple boom switches in case there is a faulty hardware switch connection.
9. With a small jumper wire (or paper clip), short between Ground and Signal with a "short-no short" motion. Each time a contact is made, the total volume should increase by increments of 1 or more.
    - If the total volume does not increase, remove the section of cable and repeat the test at the next connector toward the console. Replace defective cable as required and recheck.
    - If all cable tests pass then there is a problem with the flow meter / encoder. Replace the flow meter / encoder.

When finished, re-enter the correct Meter Cal / Spreader Constant.

$$\text{Meter Cal} = \text{Number Printed on the Tag}$$

$$\text{Spreader Constant} = \text{Encoder Count} \div \frac{D \times GH \times GW}{1728}$$

Value	Description
D	Distance the belt travels per 1 revolution of the encoder
GH	Gate Height
GW	Gate Width

Attachment

Attachment