



## **REPLACING THE TRANSDUCER ON A BWS MODEL CENTRIFLOW® METER**

### ***Removal of current Transducer***

1. Disconnect power to the CentriFlow® Meter.
2. Open the Rear Enclosure Door.
3. Disconnect the leads from the Transducer to the Wago connector.
4. Remove the Column Cap holding the Transducer wire.
5. Remove the two screws holding the Transducer in place.
6. Make sure the Shipping Lock is not installed when beginning the replacement. If the Transducer is being replaced at a location other than the installation point, the Shipping Lock should be installed while the meter is being moved.
7. Make sure that there is no product flowing through the system.

### ***Installing a Transducer***

1. Make sure that the CentriFlow® Meter BWS is installed properly and securely. If the Transducer is being replaced in another location other than the installation point, set the meter at the exact same level so that the balance of the Pan is correct.
2. Fasten the Transducer, using the original screws with Removable Loctite 242 (Blue), to the Beam Attachment.
3. Connect the thin wires from the Transducer to the Wago connector putting them into their color-coded slots. Note: White and Red are mV output, Green and Black are 5.0Vdc input (10.0 Vdc for analog electronics with potentiometers).
4. Check that the Column Wire lays flat on the Beam Attachment and is perpendicular to the Backplate. If the wire does not sit flat or is not parallel to its surface, adjust the beam attachment to correct this. When the correct position is obtained, tighten the screws holding the Beam Attachment. Normally, in a replacement scenario, no adjustment should be needed.
5. Install the new Column Cap over the Column Wire. Column Caps can be flipped over once to use a fresh clamping surface. Do not tighten yet. Use Loctite 242 (Blue) on screws.
6. Use a small square on the backplate and slide it up to the bottom of the counterweight to achieve perpendicularity of the counterweight to the backplate.
7. Very lightly tighten the Column Cap just enough to hold the counterweight in place.
8. Lightly install the Shipping Lock to prevent the mechanism from moving during tightening of the Column Cap Screws. **It is critical to not bump the mechanism or apply too much force when placing the Shipping Lock at this step to prevent damage to the new transducer assembly and column wire.**
9. Tighten the screws evenly and very slowly so as not to distort Column Wire or move the assembly. Tighten equally in steps until tightly torqued.
10. Remove Shipping Lock once column cap screws are tight.



11. Use a voltage meter to observe the output of the Transducer or navigate to the ZERO screen on the electronics to view the mV output of the transducer. If using a voltage meter, read mVdc between the red and white wires. The desirable installation would result in a 0.00 mV output; however, the meter will work within  $\pm 0.35$  mV ( $\pm 0.7$  mV for analog) of 0.00 mV.

A. If the mV output is outside the specified range, tightening the screws in a different sequence may help to counteract the force exerted on the Transducer during the tightening process. Loosen the column cap screws and repeat steps 6-11.

B. If the output cannot be set within the parameters, contact Eastern Instruments' Technical Service Department at (910) 392-2490.

7. Reinstall the Shipping Locks (for transport purposes) if the meter is not at its installation point. If the meter is at its installation point, make sure that the Shipping Locks are not installed and that the Rear Enclosure Door has been closed.

