Falcon Gauge 5V Fuel Quantity System Installation Instruction

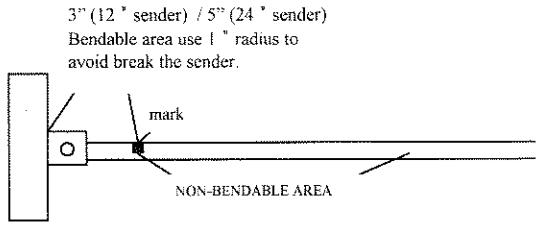
Sender

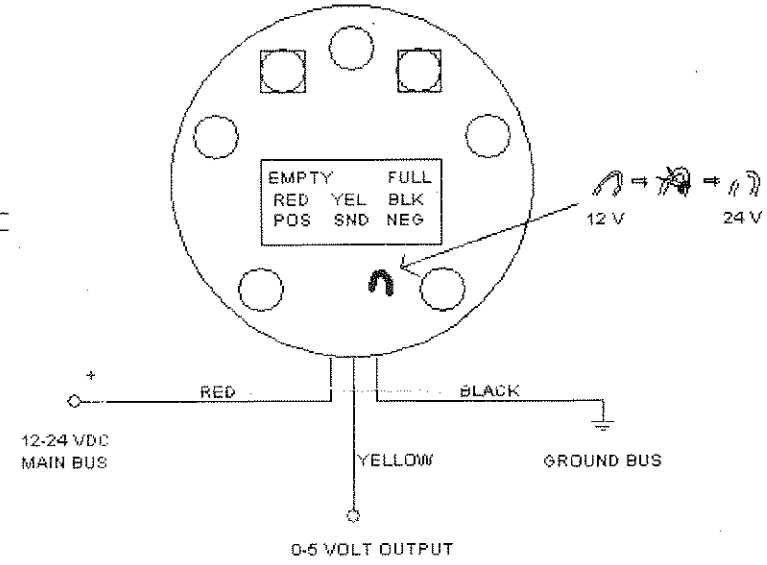
Model No. FP-012-5, 12"
FP-024-5, 24"
FP-012-5W, 12" with low level warning output
FP-024-5W, 24" with low level warning output

1. Specifications
   Power Supply: 12 ± 2 VDC or 24 ± 4 VDC (cut the jump wire when using 24 VDC power)
   Output: 0-5V VDC
   Weight: Approx. 115g
   Wire Connection: RED — Power Supply Positive
   YELLOW — Sending Signal, Output 0-5 VDC
   BLACK — Ground

2. Application
   a. Falcon Gauge fuel sender is applicable for use in all types of non-conductive fuel (i.e. diesel, gas, aviation gas).
   b. Not for conductive liquid, i.e. water, if the fuel sender is in contact with water or metal tank, it would read full.

3. Sender Preparation (For more details, please use online version at www.falcongauge.com, under: support - instruction) The fuel sender was set up at the factory as follows: Empty <100 mV; Full = 5V (Full is located at 1"above the black bendable marking for 12" sender and at 2.5" above the black bendable marking for 24" sender). The sender is calibrated and ready to use when shipped from the factory. If you shorten the sender, you will have to recalibrate it.





4. How to shorten: Measure the depth of the tank and use a tubing cutter to cut the outer tube a ½" short of the measured depth of the tank. After removing the outer tube you should find one or more plastic disc type spacers between the inner and outer tubes. Push the spacer into the outer tube about 1/8" and then cut the inner tube. Make sure there is no contact between the inner and outer tubes.

Sender Calibration: Make sure there is no contact between the inner and outer tube and that the sender is dry.

1) Connect sender to fuel gauge as shown in the above drawing with the sender out of the tank and red wire unconnected at this time.
2) Turn the adjustment screw "Empty" all the way to the left (counter-clockwise) and turn the "Full" all the way to the right (clockwise).
3) Connect the red wire to the power supply (12 or 24 VDC). **Note: Cut loop if using 24 VDC power.**
4) Turn "Empty" adjustment screw right gently until the gauge reads "Empty".
5) To calibrate at "Full", install the sender into a **FULL** tank of fuel and turn "Full" adjustment screw left (counter-clockwise) gently until the gauge reads "Full".
6) Turn off power supply.

Note: The sender can be calibrated using a Multi-Meter using the following steps.

1) Remove the sender from tank and allow it to dry. Turn the adjustment screw "Empty" all the way left (counter-clockwise) and turn the "Full" all the way to the right (clockwise).
2) Connect the sender to the power supply and a Multi-Meter
   RED — Positive of Power Supply
   BLACK — Ground of Power Supply
   YELLOW — Multi-Meter's Positive and the Multi-Meter's negative connects to the power supply's negative.
3) Turn "Empty" adjustment screw right gently to read less than 100mV.
4) To calibrate at "Full", place the sender into **FULL** tank of fuel and turn "Full" adjustment screw left (counter-clockwise) gently to read 5V.