



**Brennan Engineering Inc.**

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### **The Hand Held Turbine Meter Analyzer with 4-20mA loop meter.**

This device can be used to monitor any turbine meter by adjusting the calibration factor. It will display a flow rate in barrels per day and gallons per minute. It also totalizes in barrels and gallons.

The 4-20mA section of the meter will source approximately 19VDC and display the return signal in milliamps. The maximum transducer pressure can be entered in order to display fluid level in feet and pressure in psi.

It is also rechargeable from any 12VDC vehicle outlet. A full charge will yield approximately 7 hours of continuous use.

## **Operation**

### **On/Off Function**

- 1) Pushing on/off switch up will leave the meter on until the battery runs out.
- 2) Switching the on/off switch up then down will allow you two minutes of operating time.

### **Turbine Meter Analyzer Functions**

- 1) The **up arrow/2** or the **down arrow/8** will scroll through the parameters.
- 2) The programmable values for the turbine meter analyzer are:
  - a) **Meter Size (in)** (meter size in inches)
  - b) **Meter Cal Fact** (meter calibration factor)
  - c) **Xducer Max psi** (transducer maximum pressure)
- 3) To program **Meter Size (in)** go to that parameter. Then Press **Ent.** button. Brackets [ ] will appear which means you are in programming mode. Enter any value using the decimal and number keys. Next, press **Ent.** again to save your value. Then use your magnetic pick up to read the **Flow Rate** in (**gpm**) or (**BPD**) parameter of your turbine meter.
- 4) The **Meter Cal Fact** parameter will put in its own default value based on the Meter Size you entered. However, you can enter your own Calibration Factor, just press **Ent.** input your value and press **Ent.** again to save your value.
- 5) To program the **Xducer Max psi** go to that parameter. Enter the pressure of your transducer by pressing **Ent.** Then input your value and press **Ent.** again to save your value. Then use the banana jacks to hook up to your transducer red

wire (source) to red terminal and the black wire (return) to the black terminal. Next, go to the **Sensor Out** parameter to get your transducer reading in milliamps and to read your fluid level by going to the **Fluid Level (ft)** parameter. You can also get your pressure reading by going to the **Pressure (psi)** parameter.

### Recharging the Meter

- 1) Recharge the meter with the supplied cable and a 12VDC vehicle socket. The on/off switch should be in the off position (slid to the back when looking at switch). The recharge will take 12 hours, but it can be used again after 1 hour. Do not charge for more than 24 hours. If the battery fails be sure to replace it with a rechargeable 9V battery.

