

Fuel/oil Pressure Transducer Installation Guide

1) Wire the sensor as shown in Fig 1. Connecting power lead (RED) to terminal 10, signal lead (Green) to terminal 9, and around lead (YELLOW) to terminal 6. The 12V DC buzzard is optional.

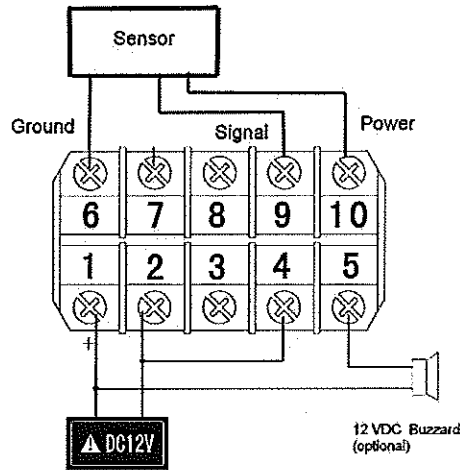


Fig 1. Wiring diagram.

2) Set the parameters for displaying the pressure with 0.01 bar resolution. Enter the Basic Parameter setting mode with code 0089. a) Set input type. **Intv.** for 0-5 V input. b) Set the decimal point. **dot=** 000.0. c) Set the PuL= -1.2. PuH= 11.3.

3) If you like to display the pressure unit in PSI (00.1psi resolution) instead of Bar. "2)" needs to be modified. Enter the Basic Parameter setting mode with code 0089. a) Set input type. **Intv.** for 0-5 V input. b) Set the decimal point. **dot=** 0000. c) Set the PuL= -18. PuH=163.

4) To set the alarm on at 6.5 Bar and off at 6.4 Bar. Enter code 0001 to set AH1=6.5 and AL1=6.4. The detail can be found in section C 2 of the instruction manual.

B. Discussion

1) The peak holding function is set for displaying the Maximum pressure only. To display the peak pressure from the last run, or display the pressure in the peak holding mode continuously, press the ">" key once. The MAX (MIN) LED will be on, indicating the display is in the peak mode. Press ">" again to change back to display the current pressure. Press and hold "A" for 3 second will reset the memory. Three additional peak parameters are turned off. They are, the time that the maximum pressure was recorded, the minimum pressure and its

recording time. If you want see them, use code 0037 to turn on these functions. The detail can be found in section C3 of the instruction manual.

2) This instruction is for the SYL-1813R that has the 5 V power supply (for the pressure sensor) enabled at terminal 10. If you have an older version of SYL-1812R, you need to get the 5 V out to terminal 10. Please ask factory for instruction on how to do it.

C. Appendix 1.

Example. how to determine the set up parameters for SCINTEX transducer.

For a pressure sensor that is powered by 5 V DC, the linear range of the output signal will be above 0V and less than 5 V due to the nature of mechanics and electronics. SCINTEX published data, 0 bar = 0.5V, 10 bar =4.5 V. What these data tell us is that the sensor has a linear output between 0.5 and 4.5 V when the input signal is between 0 and 10 Bar. In other words, within this range, the relationship between pressure and output voltage can be represented by

$$V = a \times P + b \quad (1)$$

Where P is the pressure, V is the voltage, **a**, is the slope, **b** is the intersection at zero pressure.

Because the meter is set for 0-5V linear input, we need to find out what is the pressure when we extend the equation 1 from 0.5-4.5V to the 0 and 5 V.

Calculating slope **a** and intersection **b**

$$a = (4.5 - 0.5) / (10 - 0) = 0.4$$

$$b = 0.5$$

$$\text{So, } V = 0.4P + 0.5, \text{ or } P = (V - 0.5) / 0.4$$

Therefore, at 0 V, P = -1.25; at 5 V, P = 11.25.

To display in gauge pressure.

Set dot to 000.0. PuL=-1.2. PuH=11.3

To display the pressure with PSI units instead of Bar, multiply the number by 14.5 (1bar=14.503PSI)

Set dot to 0000. PuL=-18. PuH=163.