

# Manual of FUELTRANC-5105

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## **FUNCTION OF PRODUCT:**

Fuel trance is compact low cost, 3 wire level transmitter with 0-5V analogue output designed to measure level for diesel or other viscous oils in a storage tank.

The probe forms an electrical capacitance with the surrounding metal contained wall. With the tank empty an initial capacitance exists between electrode and metal wall. When the probe is covered with material to be measured the capacitance will increase and change will be measured and covered into an analogue output signal proportional to the change.

## **SPECIFICATIONS:**

Power supply of FUELTRANC-5105 is derived from on-board supply line of the vehicle it is installed on.

Housing – Cast Al, IP-56

Mains – 24 VDC (can be supplied from the Vehicle battery) Current Consumption - 20 mA (max)

Response time – better than 10 sec Accuracy – better than +/- 1% Operating Temp - -20 to +60°

C. Output – 0 to 5 VDC

Setting – factory set for probe length. If needs can do field calibration also. Mounting – Screwed or flanged as per application.

## **APPLICATION:**

Fuel level sensor capacitive fuel trance is designed for diesel

Fuel level measurement in fuel tank of vehicles and aggregates as well as stationary units.

**IT IS PROHIBITED TO USE fuel trance for level measurement of electrically conducting liquids (for example, water).**

## **CONNECTION:**

RED	+ VDC
BLACK	GROUND
GREEN	PUTPUT (0-5V) - SPAN SWITCH – ZERO SWITCH
SWITCH 1	
SWITCH 2	

## **INSTALLATION FOR FUEL TRANCE:**

### **MOUNTING:**

The probe must be mounted parallel with the tank wall. Probe should not come in the path of flowing material.

### **INSTALLATION:**

Probe must be installed from the top. Sufficient clearance (minimum equal to probe length) should be available above the tank top to facilitate to hoist probe over the tank top for insertion

## **Following precautions should be taken during installation-**

- 1) The pipe should not be bent or positioned distorted.
- 2) The mounting nozzle should not be longer than mounting nut thread length. This is to avoid false output.
- 3) They should have some clearance at the lower end from the tank surface so that it is always above the MUCK level in the tank.
- 4) During the installation of probe with screwed mounting, turn the mounting bush above the thread and not the housing.
- 5) Working temperature should not exceed 60°C.
- 6) Precaution should be taken to avoid fall of sunrays on the electronic unit housing.

## **CALIBRATION:**

The instrument is pre calibrated for specified material, so no need of calibration.

If sensor needs calibration on field, following steps must be followed:

- 1) Connect multimeter in between green wire (output) and black wire (gnd.) to see output voltage.
- 2) Setting ZERO (0 V) level:-
  - a) Remove the sensor probe from the tank and let the fuel drain completely from the probe.
  - b) After the fuel has drained, press and hold SWITCH 2 (SW2) for 2 seconds and observe the output value on a multimeter.
  - c) The multimeter output should be below 40 mV.
- 3) Setting SPAN(5 V) level:-
  - a) Insert the sensor probe in the fuel till desired level to set the span value. b) Press and hold the SWITCH 1 (SW1) for 2 seconds and observe the output on the multimeter.
  - c) The multimeter output should be 5 V.
- 4) Check the values of the sensor from zero level to span level; it should vary from 0V to 5V.

## **MANTAINANCE:**

In normal conditions the fuel transmitter needs no maintenance. Ensure cable glands and housing lid are sealed.

*Authorised Dealer*



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