

# FLUID LEVEL SENSOR



The output of the fluid level sensor is a voltage which changes in direct proportion to the level of fluid in the probe. There are no moving parts. The sensor operates by measuring the capacitance between the probe's two concentric tubes. Due to the difference in permittivity between air and the fluid being measured, the capacitance of the probe changes according to the ratio of air and fluid in the probe.

Various probe lengths are available. The probe is factory replaceable allowing the electronics to be re-used should the probe become damaged or if a new probe length is required.

The sensor is calibrated for the particular fluid and measurement range by connection to a PC via RS232. The user, with the help of a graphical user interface (GUI), can calibrate the sensor to define the voltages at the empty and full conditions, as well as the required temperature compensation for the media used.

## Electrical

- Supply voltage 8 to 16V
- Supply current <30mA
- Supply reverse polarity protection
- Output voltage 0.25 ±0.05V empty, 4.75 ±0.05V full
- Output clamped between 0.1±0.05 and 4.9±0.05V
- Error condition output 4.95 to 5V
- Output resolution >11-bit
- Output update rate 200Hz
- Independent non-linearity 1% FSO@25°C

## Mechanical

- Aluminium alloy body, hard anodised and dyed black
- Weight <110g including cable
- Factory replaceable probe

## Environmental

- Maximum humidity 100%
- Operating temperature range 0 to 150°C
- Viton jacketed cable
- Vibration 5 to 2000Hz @ 5g 24hrs per axis
- Shock 50g, ½sine for 11ms, 5 times in each axis

## Application

- Fluid level (eg water, oil or fuel)

## Cable and Connection Definition

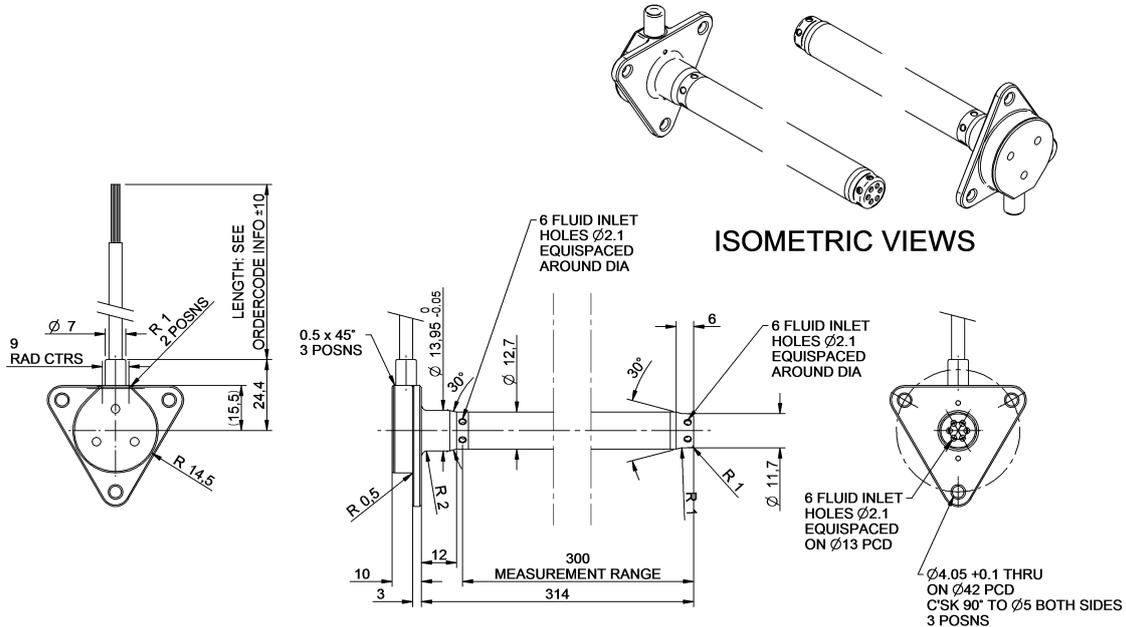
- 26AWG un-screened cable
- Cable length is shown on the order details but any length is available on request
- Various automotive and military standard connectors are available
- Connection
 

Red wire	Pin 1	Supply
White wire	Pin 2	Signal
Black wire	Pin 3	Ground
Green wire	Pin 4	Tx sensor (used for probe configuration only)
Blue wire	Pin 5	Rx sensor (used for probe configuration only)

Design and manufacture is in-house, so if our existing designs do not suit your application, we can provide cost effective customised parts to suit even the most demanding application. No engineering charges are made for simple modifications such as customer specific connectors, cable protection and cable lengths. Please contact our technical consultancy service who will be pleased to help.

21/07/10

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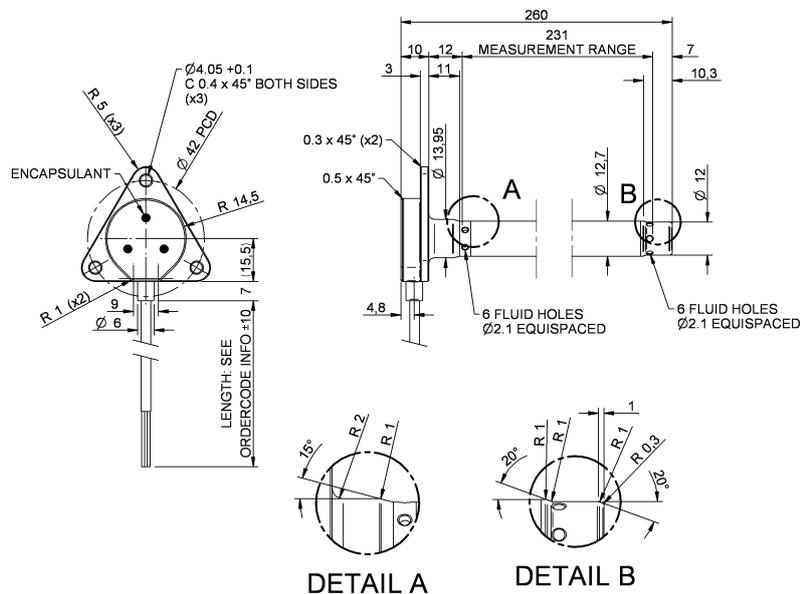


**Cable Length**  
1000mm

**Measurement Range**  
300mm

**Order Code**  
O 030 380 001 006

Other measurement ranges are available



DETAIL A

DETAIL B

**Cable Length**  
1000mm

**Measurement Range**  
231mm

**Order Code**  
O 030 380 001 007

Other measurement ranges are available

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