

# Pneumatic Tank Level Gauge



### Application

The PNEUMATIC TANK LEVEL gauge is a self contained unit which provides totally independent level indication that can be used over very long distances. When used with the correct balance chamber, will give a highly reliable tank level reading.

### Operation

The PNEUMATIC TANK LEVEL gauge uses the hydrostatic principle which has a simple and a proven reliability. This method requires minimum installation time and gives important advantages in the safe measurement of volatile liquids. Model 45 uses customers' plant air supply. The operation works by replacing liquid in the balance chamber (fitted into the tank) with air, while excess air escapes via the tanks vent. The resulting pressure in the balance chamber is indicated by the gauge and is proportionate to the head of liquid in the tank. The gauge can be mounted at any position, and may be disconnected at any time without upsetting the calibration. **Maintenance is not normally required, as there are no moving parts external to the unit.**

### Calibration

Each gauge is individually calibrated and scaled to customer requirements for Rectangular, Cylindrical (Horizontal or Vertical) tanks in litre, gallon, kg, tonne etc.

### Dimensions

**Unit:** 300 H x 200 W x 130mm D

**Indicator:** 100mm or 160mm

**Balance Chamber BC3** For 1" bsp Tank Boss Rigid

### Models available

**Model 45A** Analogue gauge only

**Model 45AD** Analogue gauge only with 4-20 mA loop powered transmitter

**Model 45ADP** Analogue and digital display with 4-20 mA loop powered transmitter

**Model 45D** Plain no displays with 4-20 mA loop powered transmitter

**Model 45DP** Digital display with 4-20 mA loop powered transmitter

### Installation

The PNEUMATIC LEVEL contents gauge can be mounted in any convenient position up to 200m from the tank without affecting the reading. Installation is simple. Mount the unit with fixing screws and insert the balance chamber through a BSP tank boss on top of the tank allowing it to rest on the bottom, tighten bush and balance chamber connection. Connect the tube to the unit. There is no need to empty the tank. Once the air supply is connected, after a short period, the gauge will read the true contents of the tank.

### Construction:

BC3 is available as follows:

- (1) PVC
  - (2) Polypropylene
  - (3) PVDF
  - (6) Copper
  - (7) Stainless Steel
- Maximum tube Length:- 200m

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## BC2 – Standard Balance Chamber

Construction: Brass with compression fitting for 6mm tubing

Also Available in: PVC (1) or Stainless Steel (7)

Viscosity Limit: 50 sec, redwood no.1 @ 16°

Requires a 1" bsp Tank Adaptor

BC2 Standard Brass balance chamber

BC2-1 PVC balance chamber



## BC1 – as BC2 but with Magnet

Construction: As BC2 but with attached magnet to stabilize the balance chamber in position when tank is being filled.

Requires a 1 ½" bsp Tank Adaptor

Magnet for Standard balance chamber

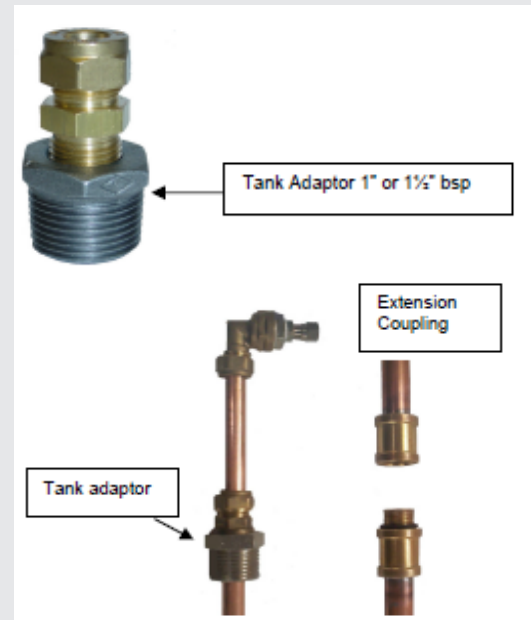


## BC3 – Rigid Balance Chambers

Construction: PVC (1), Copper (6) or Stainless Steel (7).

Requires a 1" bsp Tank Adaptor

Made to customer requirements



For use with - Models 28PU, 28PUE, 36, 37, 38, 39, 40 & 45