

# Pressure Tank Gauge Module



## Introduction

The E-Plex 318PFTG series can be used in a wide variety of applications. The same tank sender can be used for diesel fuel, fresh water, grey water, or black water tanks.

The tank gauge in its standard version can measure fluid up to a maximum depth of 2m and measures pressure of fluid in a tank to a high resolution. Tank shape has no effect on the accuracy of the pressure tank gauge, which makes it useful in applications where the tank shape is irregular.

The tank gauge can be used in multiple configurations, depending on the construction of the tank whether it is plastic or metallic.

The E-Logic software allows for accurate calibration by building a tank curve table during the initial fill process. A table can also be precalculated if the tank dimensions are known.

## Key Features

- Measures tank contents by sensing pressure.
- Can be used for diesel, fresh water, grey water or black water.
- Available in top entry and direct mount versions.
- Robust stainless steel sensor.
- Top entry version is adjustable for different depth tanks.

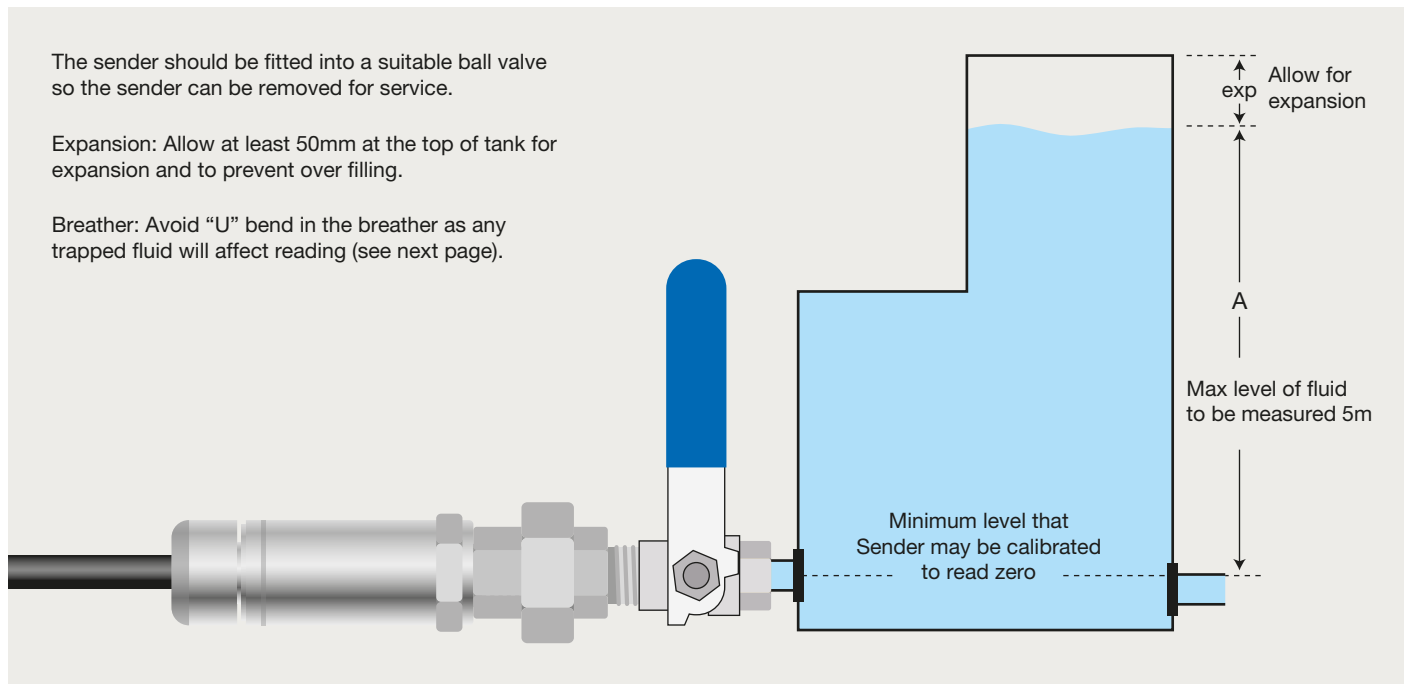


## Installation – Direct Mount

The housing assembly screws directly into a 1/4" BSP opening on the side or bottom of the tank. If mounted to the side, it should be located near the bottom of the tank so as to be exposed to the maximum level of fluid in the tank. For serviceability, a valve is recommended in-line to allow for removal without emptying the tank. A union is available to aid installation and removal. NB. The sensor is supplied with a dust cap that must be removed prior to installation.

The 318PFTG interface unit may be mounted onto any horizontal or vertical flat surface near the sensor.

Sender should be mounted at same level as any takeoff (or slightly higher to allow a reserve if required).



1/4" BSP coupler supplied with direct mount version.

## Mechanical Fitting Of Sender

This unit **MUST** only be fitted to a threaded 1/4" BSP female bush. It is important that a shut off valve is fitted in-line to the unit to facilitate removal, should this become necessary in the future.

Before assembly ensure all threads are clean and free of grease then assemble using a good quality jointing compound.

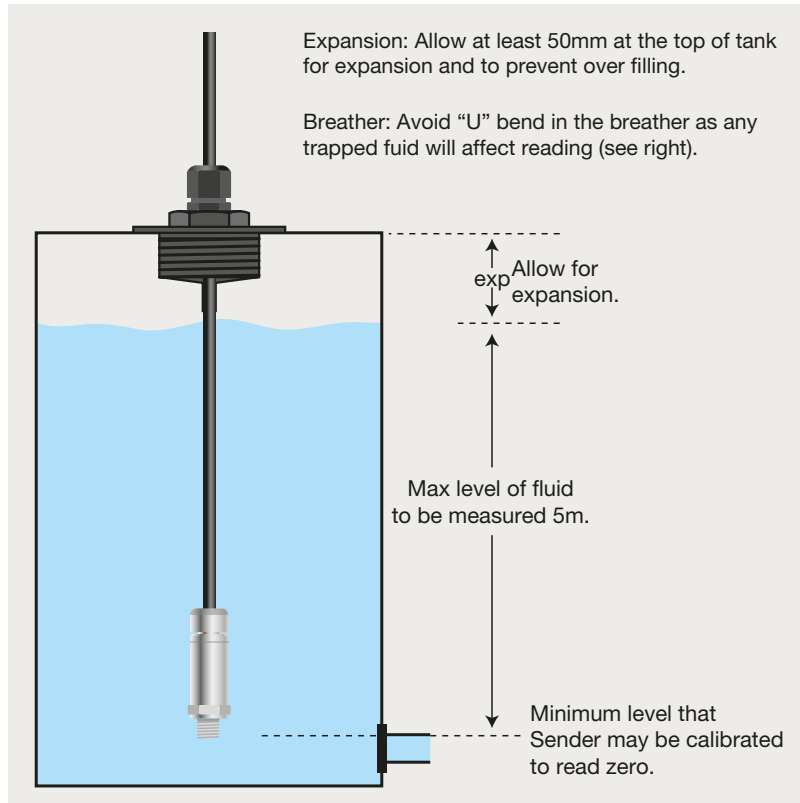
Ensure that the shut off valve is open **BEFORE** tightening the unit into the shut off valve, so as not to damage the sensor due to overpressure.

## Installation – Top Mount

The stainless steel sensor drops into the tank from the top. Due to the flexibility of the tube it can be placed in any conveniently accessible location on the tank then allowed to sink and flex around bends or obstructions in the shape of the tank. The length of flexible pipe to the pressure sensor can be adjusted by loosening the cable gland at the top of the tank mount. This also allows the tank mount to rotate when installing the sender. Ensure that the cable gland is tightened after installation to prevent leaks.

The 318PFTG interface unit may be screwed to any horizontal or vertical flat surface near the sensor.

Sender should be located at same level as fuel takeoff (or slightly higher to allow a reserve).



1" NPT version  
Ordering code: EP-MON-318PFTG-N-01



1.25" BSPP version  
Ordering code: EP-MON-318PFTG-N-02

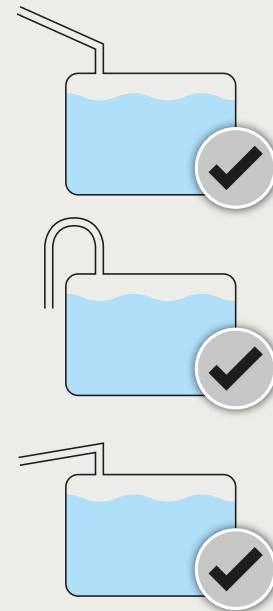
### Tank Breathers

The E-Plex Tank Sensor uses a sensitive pressure transducer to measure the depth of fluid. It will measure empty when the fluid reaches the bottom of the sender.

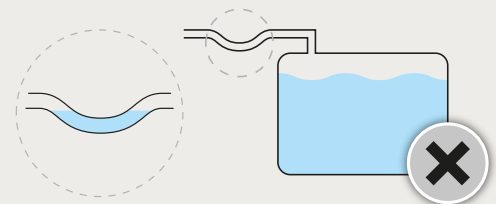
The tank must have a correctly installed breather to allow the tank sender to work correctly. Any water trapped in the breather pipe will effect the measurement and introduce inaccuracy.

If the tank can be filled or emptied at high speed the breather pipe must be sized to suit.

### Correctly installed breather - no water trap in the breather pipe.



### Incorrectly installed breather - water trap in the breather pipe.



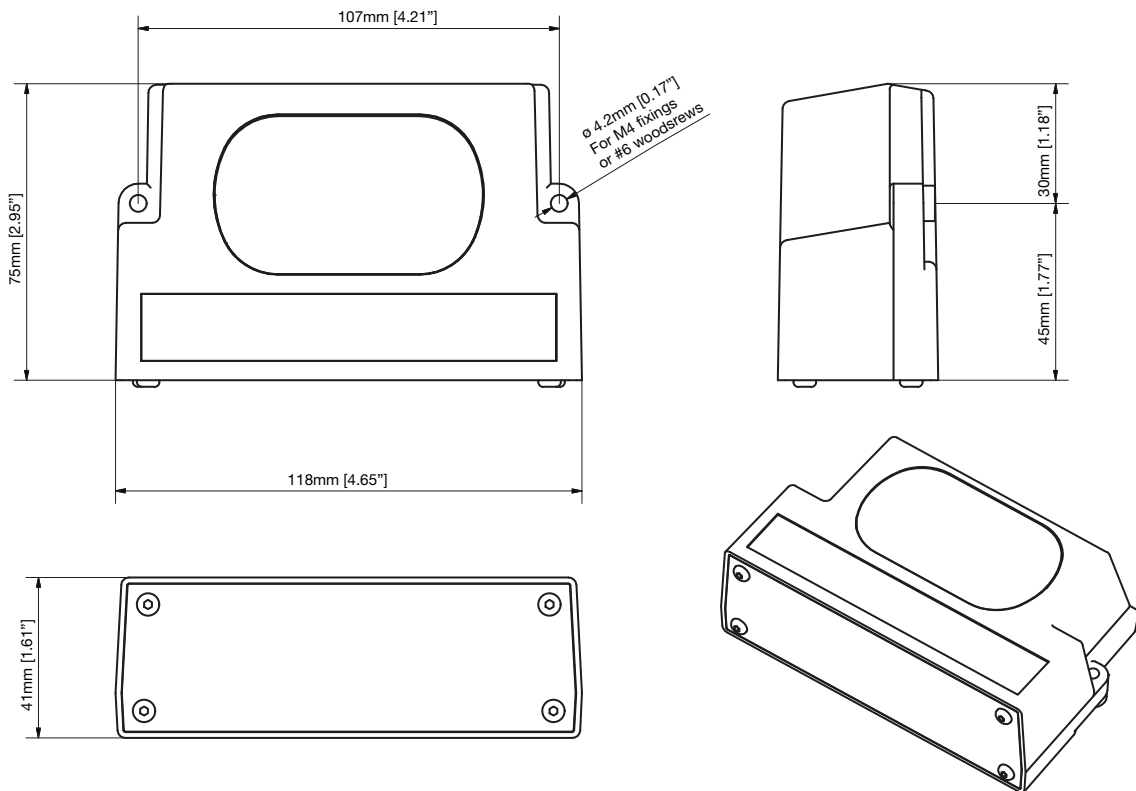
## Calibration

The tank sender is supplied with a base calibration level of 1mm = 1 count for water. A 300mm deep parallel sided tank would require a table in the module calibration page so that 0 counts = 0% and 300 counts = 100%.

If the sender is being used in diesel fuel allowance needs to be made for the differing densities of diesel and water. Diesel is approximately 0.85 times the density of water, so 300mm of fuel would read 255 counts and the table would need to be changed to suit.

## Technical Specifications

Description	Specifications
Maximum Pressure	2 bar (0 to 5m fluid depth)
Connectors	EP3
Sensor Assembly	Stainless steel
Tube Type	PUR vented cable
Cap Style	PVC type I top, 1" NPT outer thread
	PVC type II top, 1.25" BSPP outer thread
	PVC type III top, 1.5" NPT outer thread
	Direct mount, G 1/4" BSP DIN 3852
Operating Temperature	-20°C to 60°C
Storage Temperature	-40°C to 85°C
Operating Humidity	5% to 95% (non condensing)
E-Plex LEN	9



## Ordering Codes

Description	Ordering Code
Direct mount version 1/4" BSP with couple	EP3-MON-318PFTG-N-DM
1" NPT version	EP3-MON-318PFTG-N-01
1.25" BSPP version	EP3-MON-318PFTG-N-02
1.5" NPT version	EP3-MON-318PFTG-N-03



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