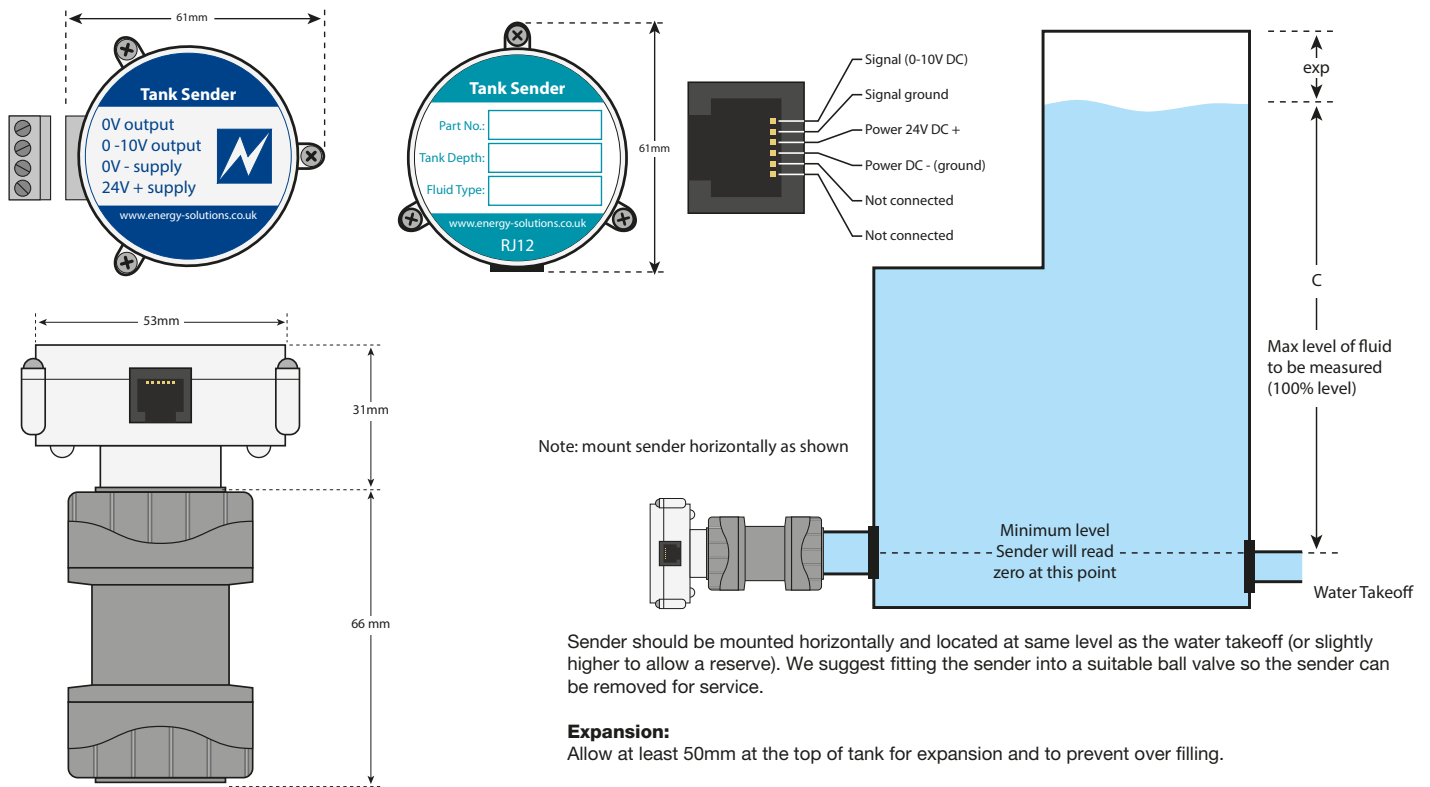


## ORDER FORM FOR FRESH WATER SENDERS - C



Pipe connection is 22mm push fit

Sender should be mounted horizontally and located at same level as the water takeoff (or slightly higher to allow a reserve). We suggest fitting the sender into a suitable ball valve so the sender can be removed for service.

**Expansion:**  
Allow at least 50mm at the top of tank for expansion and to prevent over filling.

**Breather:**  
Avoid "U" bend in the breather as any trapped diesel will affect reading. (See next page)

### GENERAL INFORMATION

These senders are suitable for measuring diesel tanks. They use a precision pressure transducer to generate a 0 - 10V DC output that is proportional to tank contents. This output can be used to drive a digital or analogue tank contents gauge directly, feed a PLC or computer or drive a 4 - 20 mA gauge via an interface unit. The sender requires a 24V DC nominal power supply. A 12V DC version is available as special order.

**TO ORDER** - Please complete the form below using one order sheet for each size of sender required.

Name:

Company:

Address:

Tel:  Fax:

Quantity:

Dim C:

Exp:

Customer part number (if known):

Gauge connection type:  RJ12  Terminal Block

# INSTALLATION INSTRUCTIONS - FOR FRESH, GREY AND BLACK WATER SENDERS

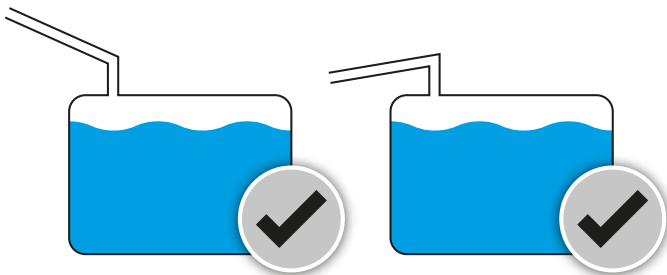
## TANK BREATHERS

The Energy Solutions 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.

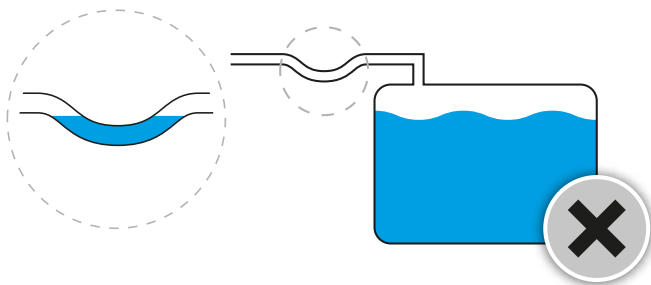
The tank must have a correctly installed breather to allow the tank sender to work correctly. Any water trap in the breather pipe will allow a pressure build up or a vacuum build up when filling or emptying. This will effect the reading of the sender and introduce an inaccuracy.

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 PROCEDURE

This section should not be needed unless the tank depth has been wrongly specified. Please consult us if in doubt.

### Procedure - fine tuning

With the fuel tank full proceed as follows. Please note the main scale of the gauge is heavily damped, causing it to only move slowly, so changes need to be made gradually.

Turn the 'Adjust full' control slowly anti-clockwise until it goes below 100% (or 10v DC if measuring with a volt meter).

Then turn slowly clockwise until it just shows 100%.

### Significant adjustments

If a significant adjustment has been made on the full reading then the zero **may** need to be calibrated as well.

This is a factory adjustment only. Please contact Energy Solutions if your sender needs re-calibration.

### Finally

Fit the lid using the three screws provided. Your unit is now fully operational.



- 1 Adjust full control
- 2 Adjust zero control
- 3 RJ12 connector