



## ***Sender Averaging Module 0-180 and 240-30 Ohm***



- **Maintains accurate tank level displays when the boat is moving or stopped**
- **Calculates the average of 2 Tank Level Senders**
- **Drives one or two standard tank level gauges**
- **0-180 or 240-30 Ohm Senders**
- **High Accuracy**
- **12 and 24 volt systems**
- **Robust Aluminium Construction**
- **Easy to Install**
- **Manufactured to IEC60945**
- **Under 150mA Power Usage**

The Sender Averaging Module solves the problem of inaccurate tank level gauge readings caused by the fluid moving to one part of the tank when the boat is heeling or in a bows up attitude whilst under power.

The Module produces an output which is the mathematical average of the inputs from two tank level senders. Thus by placing one sender at each end of the tank and averaging their outputs an accurate reading of the tank's contents is produced when the tank is not level.

The module output drives up to two tank level gauges at the same time with no switching required. So, for example, one gauge could be at the chart table and one on the flying bridge.

It is waterproof to IP68 and is robustly built to resist damage.

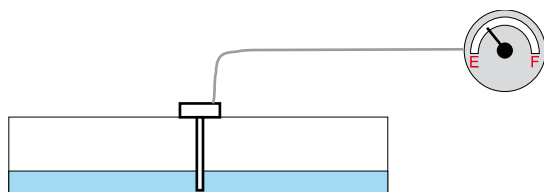
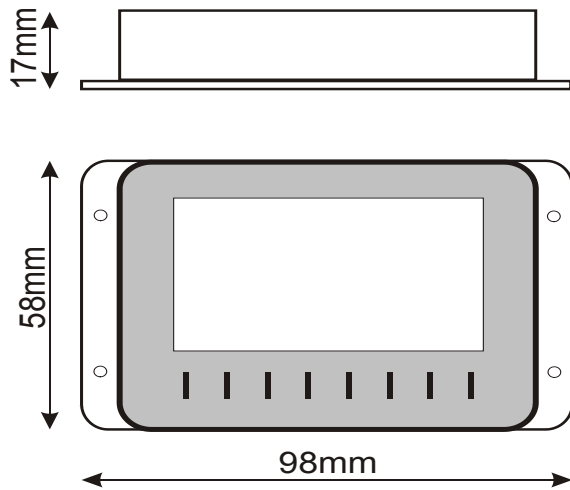
It is designed and manufactured to IEC 60945 Maritime Navigational and Radiocommunication Equipment standard. This industry standard ensures high reliability and trouble free operation for many years.



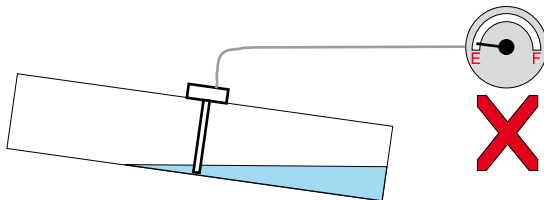
# Sender Averaging Module

## Part Nos: 2701-180 & 2701-240

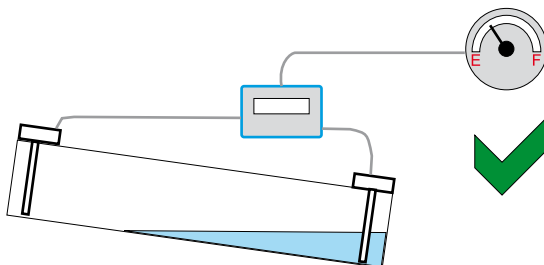
### UNIT DIMENSIONS



**Boat not moving - Tank level reads correctly**



**Boat under power with bows up attitude  
Tank level reads Incorrectly**



**With Sender Averaging Module  
Tank Levels always reads Correctly**

Parameter	Value
Sender Types	Industry standard 0-180 & 240-30 Ohm
Gauge Types	Compatible with above senders
Operating Voltage	10 - 30 Volts DC
Power	<150mA
Reverse Battery	Fully protected
Load Dump	Fully protected
Size	98mm x 58mm x 17mm incl flanges
Weight	175 grams
IEC Classification	Exposed
Protection	IP68
Operating Temp	-20°C to 50°C
Storage Temp	-50°C to 70°C
Relative Humidity	93% RH @ 40°C per IEC60945-8.2
Vibration	2-13.2Hz @ ±1mm, 13.2-100Hz @ 7m/s <sup>2</sup> per IEC 60945-8.7
Rain & Spray	12.5mm nozzle @ 100 ltrs/min from 3m for 30 mins per IEC60945-8.8
Salt Mist corrosion	4 x 7 days @ 40°C, 95% RH after 2 hour salt spray per IEC60945-8.12
EMC Emission	Conducted & Radiated per IEC60945-9
EMC Immunity	Conducted, radiated, supply and ESD per IEC60945-10
Safety	As per IEC60945-12



Our policy is one of continuous product improvement so product specifications are subject to change without notice. Our products are designed to be accurate and reliable, however, they should only be used as aids to the safe management of the boat and not as a replacement for traditional aids and techniques.  
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