



**NMEA2000®
Fresh Water, Grey Water &
Black Water Level Senders**



- **High $\pm 2\%$ Accuracy**
- **No moving parts to stick or fail**
- **Self Calibrating**
- **Tank Depths from 200mm to 2Mtr**
- **Fresh Water, Grey Waste Water or Black Waste Water Senders**
- **Up to 16 of each type of sender on a single network**
- **Low Top Profile and Easy to Install**
- **Robust Stainless Steel Construction**
- **NMEA2000® Certified**

3281 Water Level Senders are available for Fresh Water, Grey Waste Water and Black Waste Water Tanks. They provides a $\pm 2\%$ accurate tank level to the NMEA2000® marine network.

They are robustly constructed in stainless steel with no moving parts to stick or fail in service. They are easily cut to length to suit tank depths from 250mm to 2 metres and are self calibrating at power on.

They are easily fitted in the tank using a single 1.25" BSP threaded hole or into the standard SAE 5 bolt fitting by using the SAE 5 Bolt to 1.25" Sender Mounting Ring supplied.

Up to 16 of each type of sender can be connect-ed to a single network and the tank number is simply selectable at installation by means of the small rotary switch.

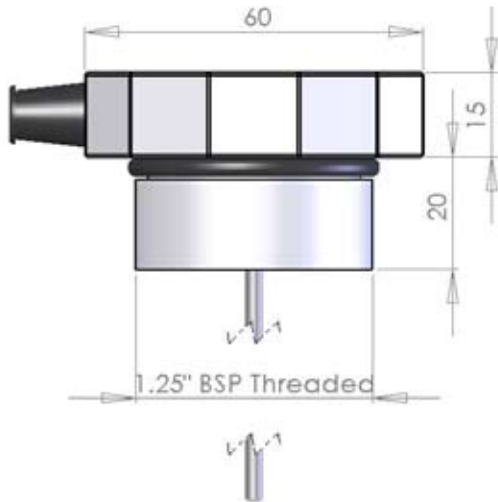
It is certified to the NMEA2000® network stand-ard and attaches to the network using a single "Micro" plug. It draws less than 50mA from the network.



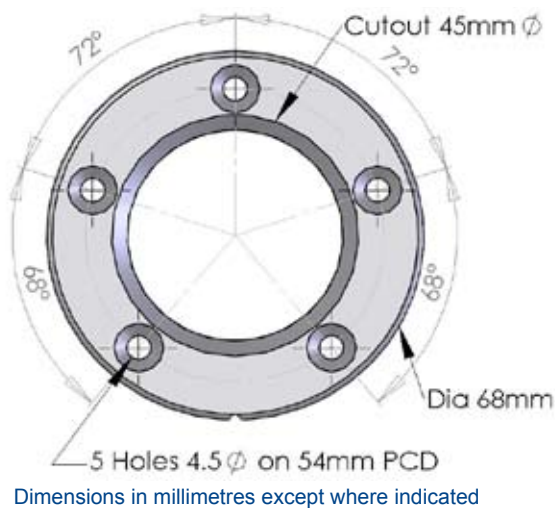
NMEA2000® Fresh, Grey & Black Water Level Senders

Part Nos: 3281-500, -1000, -1500 and -2000

3281 Water Sender Dimensions



Adaptor Ring Dimensions



Dimensions in millimetres except where indicated

Tank Type	Probe Length	Part Number
Fresh Water	250 - 500mm	3281-F500
"	500 - 1000mm	3281-F1000
"	1000 - 1500mm	3281-F1500
"	1500 - 2000mm	3281-F2000
Grey Water	250 - 500mm	3281-G500
"	500 - 1000mm	3281-G1000
"	1000 - 1500mm	3281-G1500
"	1500 - 2000mm	3281-G2000
Black Water	250 - 500mm	3281-B500
"	500 - 1000mm	3281-B1000
"	1000 - 1500mm	3281-B1500
"	1500 - 2000mm	3281-B2000

The inclusion of any vessels in any picture does not infer that their manufacturer endorses this product. 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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Specification	
Accuracy	± 2%
Number of Tanks	up to 16 of each type on a single network
Certification	
NMEA2000	Level B+
Maritime Navigation and Radiocommunication Equipment	IEC 60945
CE Mark and FCC	Electromagnetic Compatibility
NMEA PGNs	
Periodic	PGN127505 Fluid Level
Requested	PGN126996 Product Info
Protocol	PGN059392 ISO Acknowledge PGN059904 ISO Request PGN060928 ISO Address Claim PGN065240 ISO Address Cmd PGN126208 Complex Request
Electrical	
Operating Voltage	9 - 30 Volts DC
Power Consumption	<50mA
Load Equivalence	1 LEN
Reverse Battery	Protected
Load Dump	Protected
Mechanical	
Body Size	63mm Diameter 19mm High
Probe Lengths	500, 1000, 1500 & 2000mm
Weight	Approx 350 gms
Mounting	1.25" BSP Thread or SAE standard 5 bolt with adaptor
Environmental	
IEC 60945 Classification	Exposed
Protection	IP65
Operating Temperature	-25C to +55C
Storage Temperature	-40C to +70C
Relative Humidity	93%RH@40C per IEC60945-8.2
Corrosion - Salt mist	As per IEC 60945-8.12
Electromagnetic Emission	Conducted and Radiated as per IEC 60945-9
Electromagnetic Immunity	Conducted, Radiated, Supply and ESD per IEC 60945-10

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