

TLA100 *Tank Level Adapter*

The TLA100 is used to adapt commercially available resistive tank senders to the NMEA 2000® network. This allows you to observe tank levels anywhere on the vessel where there are NMEA 2000® compatible displays such as the Maretron DSM150 or DSM250.

The TLA100 is compatible with both the American standard (240-30 ohm) and the European standard (10-180 ohm) resistive senders. In fact, the TLA100 can be calibrated for any resistance between 0 and 300 ohms.

Unlike most tank senders that only work with rectangular tanks, the TLA100 can be calibrated for irregular tank shapes so you know the true level of the tanks. You can also use the TLA100 with analog gauges at the same time as NMEA 2000® so you don't have to give up existing analog gauges to enjoy the advantages of digitally networked information.

Products

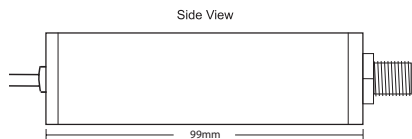
PART NUMBER	DESCRIPTION
TLA100-01	Tank Level Adapter



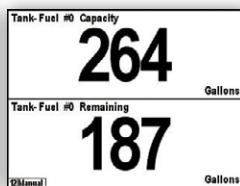
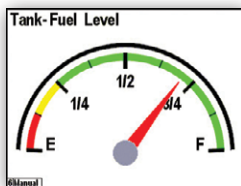
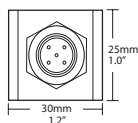
The Maretron TLA100 has the following features:

- NMEA 2000® Interface
- Adapts American standard (240-30 ohm) resistive senders to NMEA 2000® Network
- Adapts European standard (10-180 ohm) resistive senders to NMEA 2000® Network
- Calibrated for any Resistance Range from 0 to 300 Ohms or 300 to 0 Ohms
- Accommodates Irregularly Shaped Tanks with 16 Point Calibration
- 16 Programmable Tank Types Including Fuel, Fresh Water, Waste Water, Live Well
- Programmable Tank Number(s) Up to 16 per Tank Type
- Programmable Tank Capacity
- Works Alongside of Analog Gauges
- Can be Used Standalone without Analog Gauges





End View



DSM150 & DSM250 Screen Shots

Specifications

Parameter	Value	Comment
Accuracy	+/-2%	Does Not Include Inaccuracies of Analog Gauge or Sender
Resolution	+/-1%	Worst Case (Resolution Better at High Resistance Values)
Number of Tank Types	16	Fuel, Fresh Water, Waste Water, Live Well, Oil, etc.
Number of Tanks per Tank Type	16	16 Tanks per Tank Type Numbered 0-15
American Standard Senders	240-30 ohms	Standard Sender Types are User Selectable
European Standard Senders	10-180 ohms	Standard Sender Types are User Selectable
Calibration Resistance Range	0-300 ohms	Non-Standard Sender Calibration
Support for Irregularly Shaped Tanks	Yes	Can be Calibrated for any Shape Tank
Programmable Tank Capacity	Yes	Allows Displays to Calculate Amount Remaining
Analog Gauge Support	Yes	Can be Used With or Without Analog Gauges

Certifications

Standard	Comment
NMEA 2000® Standard	Level B+
Maritime Navigation and Radio Communication Equipment & Systems	IEC 61162-3
Maritime Navigation and Radio Communication Equipment & Systems	IEC 60945
FCC and CE mark	Electromagnetic Compatibility

NMEA 2000® Parameter Group Numbers (PGNs)

Description	PGN #	PGN Name	Default Rate
Periodic Data PGNs	127505	Fluid Level	0.4 Times/Second
Response to Requested PGNs	126464	PGN List (Transmit and Receive)	N/A
	126996	Product Information	N/A
	126998	Configuration Information	N/A
Protocol PGNs	059392	ISO Acknowledge	N/A
	059904	ISO Request	N/A
	060928	ISO Address Claim	N/A
	065240	ISO Address Command	N/A
	126208	NMEA Request/Command/Acknowledge	N/A

Electrical

Parameter	Value	Comment
Operating Voltage	9 to 16 Volts	DC Voltage
Power Consumption	<100mA	Average Current Drain
Load Equivalence Number (LEN)	2	NMEA 2000® Spec. (1LEN = 50mA)
Reverse Battery Protection	Yes	Indefinitely
Load Dump Protection	Yes	Energy Rated per SAE J1113

Mechanical

Parameter	Value	Comment
Size	3.9" x 1.2" x 1.0" (99mm x 30mm x 25mm)	Excluding NMEA 2000® Connector & Cable
Weight	9 oz. (255g)	
Mounting	Any Orientation	

Environmental

Parameter	Value
IEC 60945 Classification	Exposed
Degree of Protection	IP67
Operating Temperature	-25°C to 55°C
Storage Temperature	-40°C to 70°C
Relative Humidity	93%RH @40° per IEC60945-8.2
Vibration	2-13.2Hz @ ±1mm, 13.2-100Hz @ 7m/s² per IEC 60945-8.7
Rain and Spray	12.5mm Nozzle @ 100liters/min from 3m for 30min per IEC 60945-8.8
Solar Radiation	Ultraviolet B, A, Visible, and Infrared per IEC 60945-8.10
Corrosion (Salt Mist)	4 times 7days @ 40°C, 95%RH after 2 hour Salt Spray Per IEC 60945-8.12
Electromagnetic Emission	Conducted and Radiated Emission per IEC 60945-9
Electromagnetic Immunity	Conducted, Radiated, Supply, and ESD per IEC 60945-10
Safety Precautions	Dangerous Voltage, Electromagnetic Radio Frequency per IEC 60945-12