

# 200m Mini Altimeter Kit Smart™ Sensor

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The 200m Mini Altimeter Kit is an ultra-compact altimeter kit designed for measuring height off the sea floor and underwater structures. Pressure rated for up to 1,000 meters, the 200m Mini Altimeter delivers 99.4% accuracy at 5.8 meters (see accuracy table on next page). The 200m Mini Altimeter delivers excellent performance from a small, lightweight configuration optimized for use on USVs and AUVs. The sensor is available in either 170 kHz or 200 kHz. With low power consumption of just 150 mA at 12 V, the 200m Mini Altimeter is perfect for power-limited vessels. Optional water temp sensor available.

In full auto mode, the sounding rate is variable with depth; in manual mode, the sounding rate is configurable to run up to 10X per second. The data output rate and ping rate are the same in manual mode, and one ping produces one depth output. In full auto mode, the data output rate is configurable (0.1 to 25 seconds per interval). The 200m Mini Altimeter communicates NMEA 0183 serial data protocol over RS232 or RS422.

The kits consist of a 1,000 m rated transducer with 15.5" (39.4 cm) cable with connector, matching bulkhead connector, transceiver board with mounting hardware, and wiring diagram. Water temp sensor optional.

Contact [navsurvey@airmar.com](mailto:navsurvey@airmar.com) for more information.

### FEATURES

- Offered in 170 kHz or 200 kHz models
- Designed for AUVs, USVs and ROVs
- Ultra-compact and lightweight design
- Minimal power consumption
- Made in the USA
- NMEA 0183 serial data over RS232 or RS422

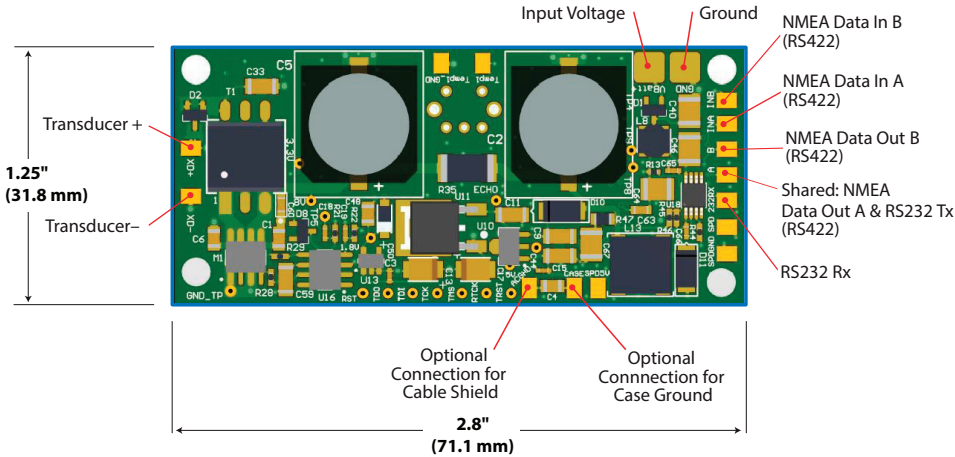


**When performance matters most we've got you covered.**

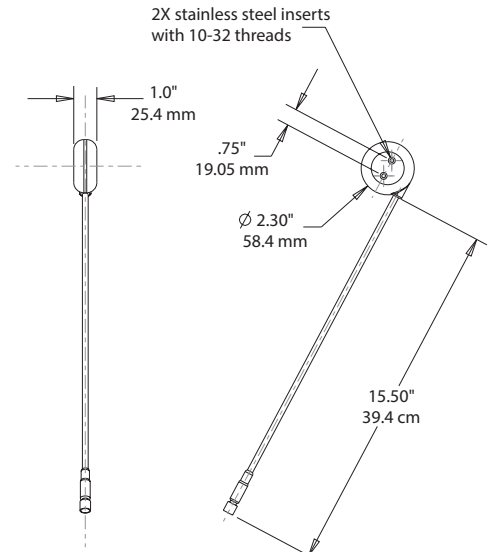


## DIMENSIONS

### Circuit Board



### Transducer



## SPECIFICATIONS

### NMEA 0183\* Standard Output Sentences

Power output from transmitter:	100 W
Reverse polarity protection:	Yes
Power supply voltage:	9 – 40 VDC, Regulated
Average current draw:	150 mA @ 12 V
NMEA 0183 Baud Rate:	4800 (Default)
Full Auto mode data output rate:	From 0.1 to 25 sec/interval
Manual mode:	Output rate equal to ping rate
Operating temperature range:	-5°C to +60°C
Storage temperature range:	-30°C to +70°C
Beam Angle:	170 kHz-C: 18° at -3dB 200 kHz-A: 14° at -3dB
Minimum depth reading:	0.4 m, limited in manual mode
Maximum depth reading:	200 m, limited in manual mode
Depth display resolution:	1 cm
Depth accuracy:	99.4% at full range (see accuracy table for more info)
Transducer housing depth rated to:	1000 m
Housing type:	M107
Cable length:	15.5" (39.4 cm)
Connector:	3-pin female
Transducer weight:	5 oz/140 g
Sounding rate:	In full auto mode, sounding rate is variable with depth, in manual mode, sounding rate is configurable up to 10 times per second. Data output rate and ping rate are the same in manual mode, one ping produces one depth output. In full auto mode, data output rate is configurable (0.1 to 25 seconds per interval)

### ACCURACY (Based on tank testing)

Actual	Reported	Difference	%
3.05 m	3.07 m	+0.02 m	99.33%
4.57 m	4.59 m	+0.02 m	99.56%
5.79 m	5.82 m	+0.03 m	99.48%

Note: A minimum test tank of 50 gallons is recommended as smaller tanks may induce reverberation and interfere with measurements.

\*NMEA 0183 is a serial data bus standard communications protocol that permits different types of electronic equipment to communicate. For more information visit [www.nmea.org](http://www.nmea.org).