DX900+ MultiLog Sensor for Racing and Sailing

Industry's First Bluetooth®-Enabled, Multifunctional Sensor

Features

- Measures transverse and longitudinal speed which instantaneously calculates leeway angle and speed through water with no latency

- Outputs dual axis speed, depth & water temperature with no moving parts

- Offers a lightweight alternative to installing multiple sensors

- Retrofits to existing P617V AIRMAR housing

- Connects and shares data via AIRMAR's new CAST™ app (Bluetooth®-enabled)

- Outputs heel and trim*

  available as option

AIRMAR®...IT'S WHAT'S UNDER YOUR BOAT.

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DX900+ Benefits

- Retrofitting is easy – retractable insert fits most existing 51mm P617V Airmar thru-hull housings
- Low profile housing has minimal drag
- Measures reverse speed (which can be helpful for very light wind conditions and quick manuevers on powerboats)
- All-in-one housing; no moving parts

CAST™ App Features

- Connects to your boat display as well as your smart device (tablet, phone, etc.) via Bluetooth® or via WiFi network
- Supports both iOS and Android platforms
- Displays all sensor features
- Performs speed calibration
- Provides diagnostic information for troubleshooting
- Offers interface to update firmware
- Can easily configure update rate
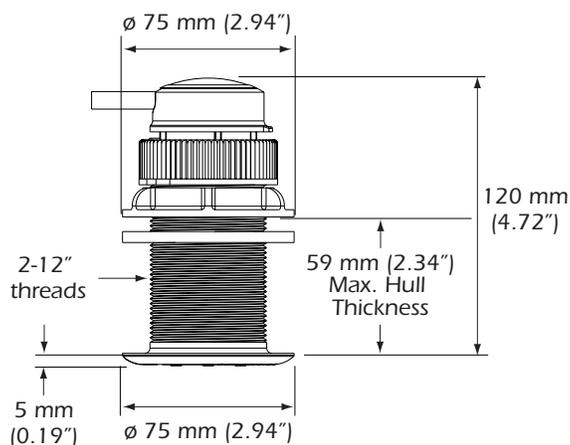- Easily display data available from other devices on the network

Measuring Leeway

No matter what type of racing you do, it's important to get every ounce of speed out of your boat. AIRMAR's new **dual axis, electromagnetic multifunction sensor** is *exactly* the advantage you need. **The DX900+ measures transverse and longitudinal speed which instantaneously calculates leeway angle and speed through water with no latency.**
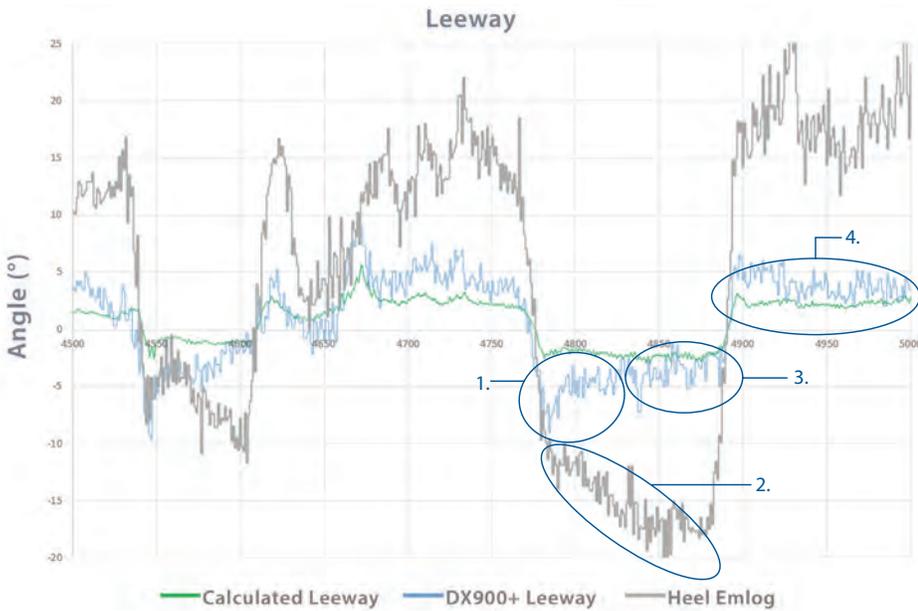
Leeway

1. Right after tack, the DX900+ leeway measurement is different than the calculated leeway. Seeing this difference gives a better true wind calculation during the tack—ultimately providing unsurpassed performance.
2. Boat speed increases after tack. Heel increases as speed increases.
3. Overtime, calculated leeway matches DX900+ leeway.
4. The DX900+ leeway and calculated leeway trend the same.

NMEA2000® – Depth/Speed/Temperature

DST 3m

DeviceNET 6m

To NMEA2000® Network

NMEA 0183 – Speed/Temperature

To NMEA 0183 Instrument/Display

NMEA 0183 6m

DIMENSIONS

ø 75 mm (2.94")

120 mm (4.72")

2-12" threads

59 mm (2.34") Max. Hull Thickness

5 mm (0.19")

ø 75 mm (2.94")

P717V Housing*

*Low-profile, plastic or stainless steel housings available.

Also retrofits to P617V housing.

NMEA 0183 TRANSMITTED SENTENCES

SENTENCE	DESCRIPTION	ON BY DEFAULT FOR EM LOG DST	ON BY DEFAULT FOR EM LOG ST	MAXIMUM LENGTH (CHARS)
$SD**DBT**	Depth Below Transducer	✓		40
$SD**DPT**	Depth	✓		35
$PAMTS,**DEP**	Depth		✓	34
$**D****	Depth			14
$YX**MTW**	Sea Water Temperature	✓	✓	20
$VM**VBW**	Dual Ground/Water Speed	✓	✓	35
$VW**VHW***	Speed Thru Water	✓	✓	30
$VW**VLW***	Distance Thru Water	✓	✓	45
$YX**XDR(T)**	Transducer Measurements: Board Temp. and Voltage	❑	❑	43
$YX**XDR(B)**	Transducer Measurements: Vessel attitude	✓	✓	43
$VM**NLA**	Nautical Leeway Angle	✓	✓	19

✓ = supported and enabled by default
❑ = supported but not enabled by default
(*) = TalkerID is VM when these sentences are output by EM Log products.
(**)= Proprietary sentence sent from Em Log DST Electronics Box to the Insert (on by default)

SPECIFICATIONS

Operating Frequency	360 kHz
Depth Range	60m
Transverse Speed Range	± 6 knots
Longitudinal Speed Range	± 60 knots
Accuracy of Transverse and Longitudinal Speed	+/– 0.1 knots for speed under 10 knots +/– 1% for speed above 10 knots
Display Resolution	0.01 knots
Outputs	NMEA 0183 (ST) or NMEA 2000® (DST)
Configurable data update rate	up to 10 Hz
Operating Temperature Range	-15°C to 55°C (5°F to 131°F)
Water Temperature Accuracy	+0.5°C (+1.0°F)
Supply Voltage	9 VDC to 16 VDC
Average Power Consumption	5.0W (DST) / 2.5W (ST)
Sensor Cable Length	3m (DST) / 6m (ST)
Blanking Plug	Yes
Weight (Sensor, box and cable)	2.25 lbs.
CE Compliant	Yes to IEC60945

Note: The sensing pins in contact with the water are made from very high quality alloy, allowing very stable measurements and high resistance to corrosion.

NMEA 2000® TRANSMITTED PGNS

PGN	DESCRIPTION	DX900+
59392	ISO Acknowledgment	✓
60928	ISO Address Claim	✓
65285	Proprietary: Boot State Acknowledgment	✓
65287	Proprietary: Access Level	✓
65408	Proprietary: Depth Quality Factor	✓
65409	Proprietary: Speed Pulse Count	
65410	Proprietary: Internal Device Temperature and Supply Voltage	✓
126208	Acknowledge Group Function	✓
126464	PGN List – Transmit and Received PGNs Group Function	✓
126720	Proprietary:	
	-33: Attitude Offsets	✓
	-35: Simulate Mode	✓
	-40: Calibrate Depth	✓
	-41: Calibrate Speed	
	-42: Calibrate Temperature	✓
	-43: Speed Filter	✓
	-44: Temperature Filter	✓
	-62: Depth Filter	✓
	-65: Calibrate Speed Dual Axis	✓
	-66: Raw Orientation Data	✓
	-67: Attitude Filter	✓
126996	Product Information	✓
126998	Configuration Information	✓
127257	Attitude	✓
128000	Nautical Leeway Angle	✓
128259	Speed (water referenced)	✓
128267	Water depth	✓
128275	Distance log	✓
130310	Environmental Parameters (water temp.)	✓
130311	Environmental Parameters (water temp.)	✓
130312	Temperature (water temp.)	✓
130316	Temperature, Extended Range (water temp.)	✓
130578	Vessel Speed Components	✓
130944	Proprietary: POST	✓

RoHS COMPLIANT   ISO CERTIFIED   NMEA 2000

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