



Bluetooth® Enabled  
Smart™ Sensors

NEW

# DST810 Smart™ Multisensor with Gen2 Paddlewheel



## Depth, Speed-Through-Water, Water Temperature, Boat Attitude

The new DST810 Smart Multisensor, featuring the new Gen2 paddlewheel and AIRMAR's CAST™ app, delivers a powerful combination of best-in-class speed performance and a simple, reliable way to calibrate accurate speed using your wireless device. The Gen2 paddlewheel delivers industry-leading start-up speed-through-water data below 0.3 knots and is linear at 0.6 knots, maintaining accurate performance up to 45 knots.

The DST810 and CAST app provide a simple, consistent way to calibrate speed-through-water. The free CAST app delivers calibration options that, until now, were only available through expensive PC-based software. In addition to water temperature, depth and newly upgraded 5.7 Hz (5X per second) speed-through-water output with improved speed resolution, the DST810 features an integrated attitude sensor for heel and trim data. This information, combined with Airmar's powerful and simple CAST app, makes heel-compensated speed calibration across multiple heel angles and speed ranges both fast and intuitive, and is independent of the onboard instruments.

### Features:

- **NEW!** DST810 now features the Gen2 paddlewheel for industry-leading speed performance from 0.3 knots to 45 knots.
- **Smoother Speed** – 5.7 Hz speed output (5X per second) for visibly smoother speed-through-water reporting and faster data for better decision making when every second counts.
- **Integrated Attitude Sensor** – for heel and trim and used in advanced speed calibration.
- Wireless connectivity to Airmar's CAST app has new user-friendly benefits:
  - Calibrate the DST810 in a simple, intuitive way from your mobile device.
  - Conduct basic and advanced heel-compensated speed calibrations for improved speed-through-water outputs across the speed range.
  - Advanced speed calibration allows for manual speed entries for multiple heel angles and up to 10 speeds, formerly only possible through expensive PC software.



Now Featuring!

**Gen2**  
PADDLEWHEEL



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

**AIRMAR®**  
TECHNOLOGY CORPORATION

# Introducing the Paddlewheel That Sets the Standard for Performance

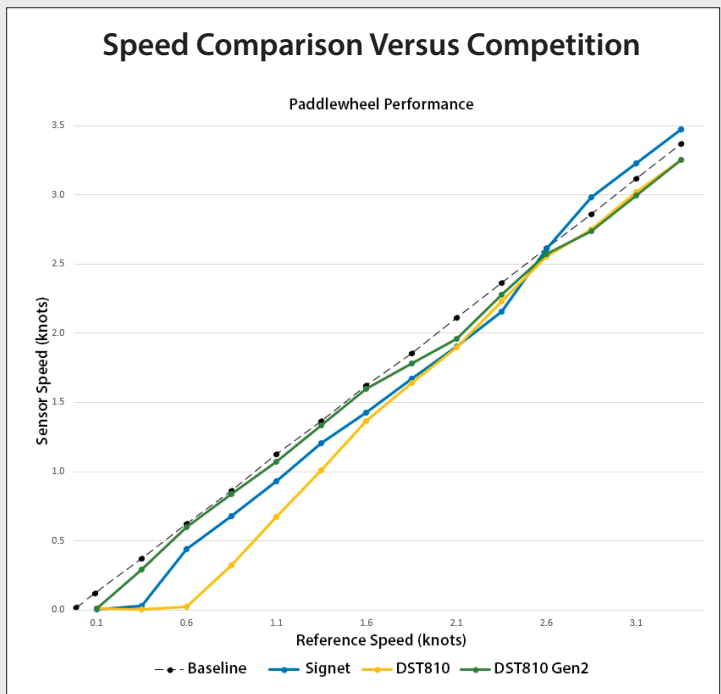


Airmar's new, next-generation paddlewheel design delivers industry-leading performance for start-up responsiveness and linearity throughout the speed range. Gen2 paddlewheel maintains the top speed performance Airmar is known for and adds start-up speed performance that beats all other available paddlewheels. The Gen2 paddlewheel is the most sensitive and accurate paddlewheel available for sailing and power boats.

## Key benefits of the new Gen2 paddlewheel include:

- Ultra-responsive speed begins as low as 0.3 knots and becomes linear at 0.6 knots.
- Speed-through-water readings stay accurate and smooth through 45 knots.

## Speed Comparison Versus Competition



## SPECIFICATIONS

### Weight:

- 0.9 kg (2.0 lb)—Plastic
- 1.6 kg (3.5 lb)—Bronze
- 1.9 kg (4.2 lb)—Stainless Steel

**Acoustic Window:** Urethane

**Hull Deadrise:** Up to 22°

**Data Update Rate:** Depth: 1X/second  
Speed: 5X/second  
Heel/Trim: 10X/second

**Attitude Accuracy:** +/- 1° nominal after sensor calibration

**Depth Frequency:** 235 kHz

**Minimum Depth Range:** 0.5 m (1.6')

**Maximum Depth Range:** Up to 100 m (330')—NMEA 2000®

**Speed Range:** 0.3 knots to 45 knots

**Pressure Rating:** 3 m (10')

**Supply Voltage:** 9 VDC to 16 VDC— per NMEA 2000®

**Supply Current:** <200 mA— per NMEA 2000®

**Wireless Protocol:** Bluetooth Low Energy (BLE)

**Wireless Range:** Up to 30 feet depending on mount location

**Standard Cable Length:** 6 m (20') DeviceNet—NMEA 2000®

**Temperature Sensor Accuracy:** ±0.5°C (±1.8°F)

**Temperature Sensor Range:** -10°C to 40°C (14°F to 104°F)

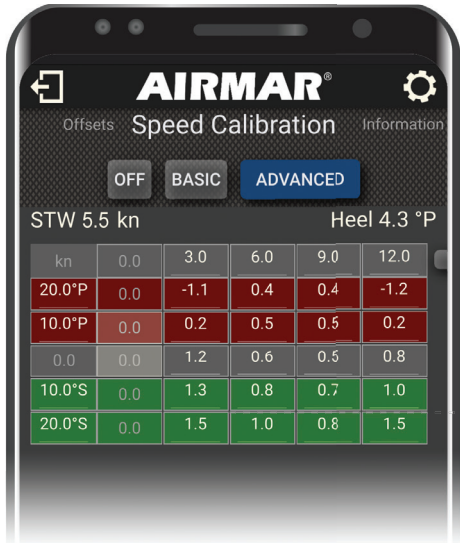
**NMEA 2000® Load Equivalency Number (LEN):** 3

**CE Regulation:** Complies to IERC60945

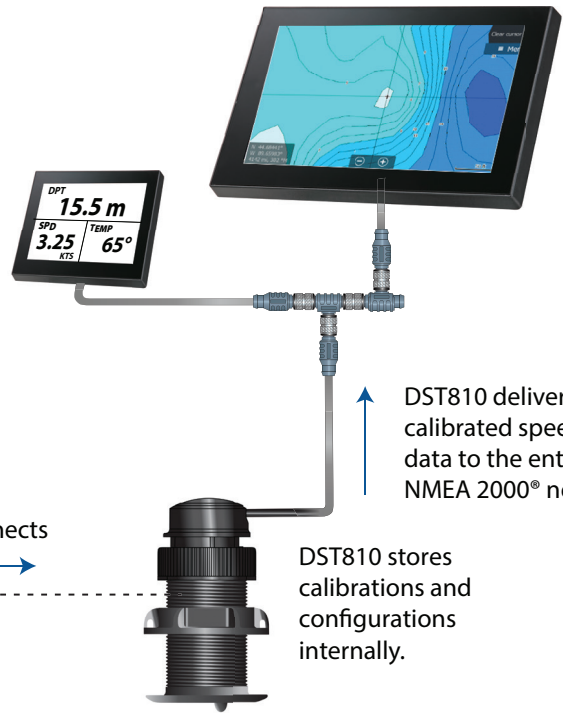
## CAST App With DST810



Use the Airmar CAST™ app to calibrate speed at multiple heel angles and numerous speeds for optimal performance.



Wirelessly connects



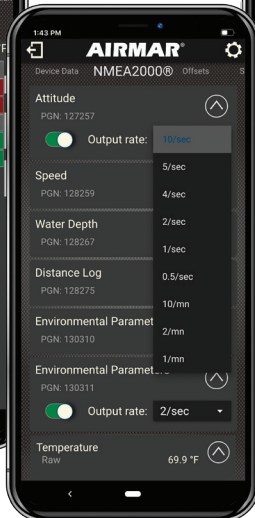
DST810 delivers calibrated speed data to the entire NMEA 2000® network.

DST810 stores calibrations and configurations internally.

Calibrate speed at 5 heel angles and up to 10 speeds



Configure outputs



Display data / gauges



Calibrate basic or heel compensated speeds with DST810 connectivity



Configure offsets and calibrate attitude



CAST connects to DST810, DX900+, and SmartBoat Modules



## DATA OUTPUT PROTOCOL

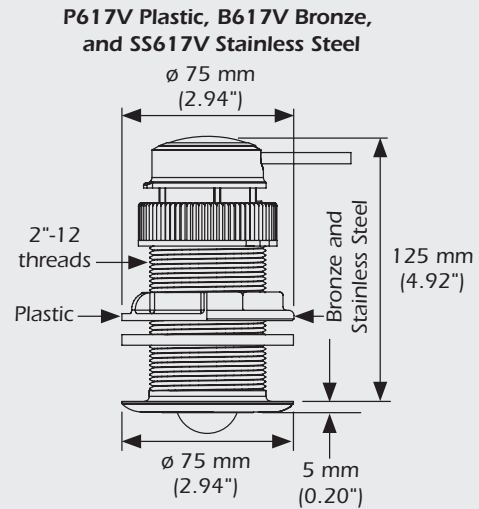
### NMEA 2000® Supported PGNs

|             |  |
|-------------|--|
| 059904..... | ISO Request                                  |
| 060928..... | ISO Address Claim                            |
| 065240..... | Commanded Address                            |
| 59392.....  | ISO Acknowledgement                          |
| 126208..... | Acknowledge Group Function                   |
| 126464..... | Transmit PGN List Group Function             |
| 126464..... | Received PGN List Group Function             |
| 126993..... | Heartbeat                                    |
| 126996..... | Product Information                          |
| 126998..... | Configuration Information                    |
| 127257..... | Attitude                                     |
| 128259..... | Speed (Speed Water Reference)                |
| 128267..... | Water Depth (With Transducer Offset)         |
| 128275..... | Distance Log                                 |
| 130310..... | Environmental Parameters (Water Temperature) |
| 130311..... | Environmental Parameters (Water Temperature) |
| 130312..... | Environmental Parameters (Water Temperature) |
| 130316..... | Temperature, Extended Range                  |

### Proprietary PGNs

|                |                                |
|----------------|--------------------------------|
| 126720-33..... | Attitude Offsets               |
| 126720-67..... | Attitude Filter                |
| 126720-68..... | Basic speed heel correction    |
| 126720-69..... | Advanced speed heel correction |
| 126720-71..... | Disable speed heel correction  |

## DIMENSIONS



Airmar's innovative housing design incorporates a self-closing valve to minimize water flow into boat when the insert is removed.



[www.airmar.com](http://www.airmar.com)

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