

Speed Log STW & SOG

SAL T200



Superior Accuracy, Cost-efficiency,
and All-in-One Sustainable Innovation



SAL NAVIGATION

Stay Ahead with Cost-efficient and Sustainable Technology

Through decades of research and development, we have created speed logs with superior precision that minimize environmental impact. Our innovative technology utilizes:

- Low-power acoustic signals, minimizing disruption to marine life.
- Combined sensor design, requiring less steel and hull modifications during installation.

SAL T200 is not only highly accurate and environmentally friendly but also more efficient to install, lowering the overall carbon footprint of the vessel from the installation phase onward.



SAL T200

Superior Accuracy, Cost-efficiency, and All-in-One Sustainable Innovation

SAL T200 stands out with superior measurement accuracy and cost-efficient design, combining Speed-Through-Water (STW) and dual-axis Speed-Over-Ground (SOG) in one sophisticated transducer.

Key Capabilities:

- **All-in-One Transducer:** A single transducer handles both STW and dual-axis SOG measurements, requiring only one hull penetration for easier installation and reduced costs.
- **Cost-efficient Installation and Maintenance:** The streamlined system minimizes cabling and components, simplifying installation and maintenance.
- **Advanced Acoustic Correlation Technology:** SAL T200 ensures highly accurate speed measurements under all sea conditions.
- **Modular and Expandable Design:** Easily expandable with additional displays or docking log functionality. Built for flexibility, requiring only the addition of a gyro signal for further enhancements.
- **Optimized for Large Vessels:** Designed for vessels over 50,000 GT. Ideal for vessels requiring comprehensive and accurate speed data.
- **Minimal Environmental Impact:** Low-power signals and intelligent acoustic sequences minimize sound pollution, protecting marine life.
- **Compliance and Certifications:** Fully certified to meet all current regulations, IMO and IEC standards. Multiple class approvals.

Key Figures

Speed Through Water

Speed range	0 – ± 50 knots longitudinal sensed water speed
Speed inaccuracy	0.1 knots or 1%, whichever is greater
Distance inaccuracy	< 1% of travelled distance in water
Minimum water depth	3 meters below transducer

Speed Over Ground

Speed range	0 – ± 40 knots in any direction
Speed inaccuracy	0.1 knots or 1%, whichever is greater
Distance inaccuracy	2 – 10 NM: $\pm 0.2\%$, 10 – 50 NM: $\pm 0.1\%$, > 50 NM: $\pm 0.05\%$
Depth range	2 – 250 metres below transducer

Docking Log (Optional)

Bow and Stern transversal SOG inaccuracy	0.1 knot (provided ROT gyro zero drift < $0.3^\circ/\text{min}$)
--	---



Innovative Solutions with Fewer and Smaller Parts – Saving Both Time and Cost

Designed with a minimalistic approach that reduces the number of parts and the number of necessary modifications to the hull, SAL Speed Logs are incredibly easy to install and maintain.



System Components

Standard



Height: 480 mm
Width: 360 mm
Depth: 240 mm
Weight: 18 kg



Height: 500 mm
Width: 500 mm
Depth: 200 mm
Weight: 20 kg



Height: 144 mm
Width: 144 mm
Depth: 16 mm
Weight: 0.6 kg

Main Unit

Operating voltage 100-230 VAC. The Main Unit contains two independent units, one for speed-through-water and one for speed-over-ground measurement. The speed data calculated is sent as serial NMEA messages for further processing in the Log Processing Unit or directly to any other receiver.

Log Processing Unit

Operating voltage 100-230 VAC. This unit receives data from the Main Unit and also ROT from a gyro when connected. The data is processed and distributed to displays and other external equipment, such as Radar, AIS, VDR etc. Preferably installed in the equipment room close to the wheelhouse.

Speed Log Display (SD4-2)

Operating voltage 24 VDC. Shows Dual-axis SOG and longitudinal STW, as well as distance. Two of these displays are used as standard; one as STW master display and one as SOG master display. Additional displays can be connected.

Standard



Height: 208 mm
Width: 122 mm
Depth: 23 kg (30 m)

Transducer

With multiple sensors capable of both water and bottom tracking. Supplied with a 30, 40 or 50 meters cable.



Height: 735 mm
Width: 575 mm
Depth: 250 mm
Weight: 75 kg

Sea Valve

The sea valve provides retraction of the transducer without dry-docking or diver assistance. Suitable both for single and double bottom hull. Flange diameter 250 mm.

Optional



Height: 144 mm
Width: 144 mm
Depth: 16 mm
Weight: 0.6 kg

Docking Display (SD4-5)

Operating voltage 24 VDC. Displays transverse SOG of bow and stern and longitudinal SOG. If docking log displays are used, a ROT signal from the gyro shall be connected to the system.



Height: 144 mm
Width: 144 mm
Depth: 16 mm
Weight: 0.6 kg

General Display (SD4-4)

Operating voltage 24 VDC. Used as additional display for any system. Configured as desired to present available information, for example speed, distance, depth, etc.



Height: 148 mm
Width: 148 mm
Depth: 99 mm
Weight: 0.5 kg

Analog Display (SIA-3-8)

Operating voltage 24 VDC. Intuitive speed indicator that can be used for STW or SOG. Range: 0-30 knots ahead, 0-8 knots astern.



Height: 194 mm
Width: 144 mm
Depth: 35 mm
Weight: 0.8 kg

Bulkhead Mounting Box

Displays (SD4 series) can be mounted directly on an indoor or outdoor bulkhead by using this box. IP66.



Height: 144 mm
Width: 48 mm
Depth: 29 mm
Weight: 0.2 kg

Dimmer

Used to dim an SD4 series display from a remote position. Additional displays can be connected to the same dimmer.



Height: 48 mm
Width: 144 mm
Depth: 8 mm
Weight: 0.2 kg

Remote Control

Used to access the SD4 series display buttons from a remote position.

Navigation Towards a Sustainable Future

SAL Navigation AB
Hägersten, Sweden
+46 8 563 05 100
sales@salnavigation.com
salnavigation.com



SAL NAVIGATION