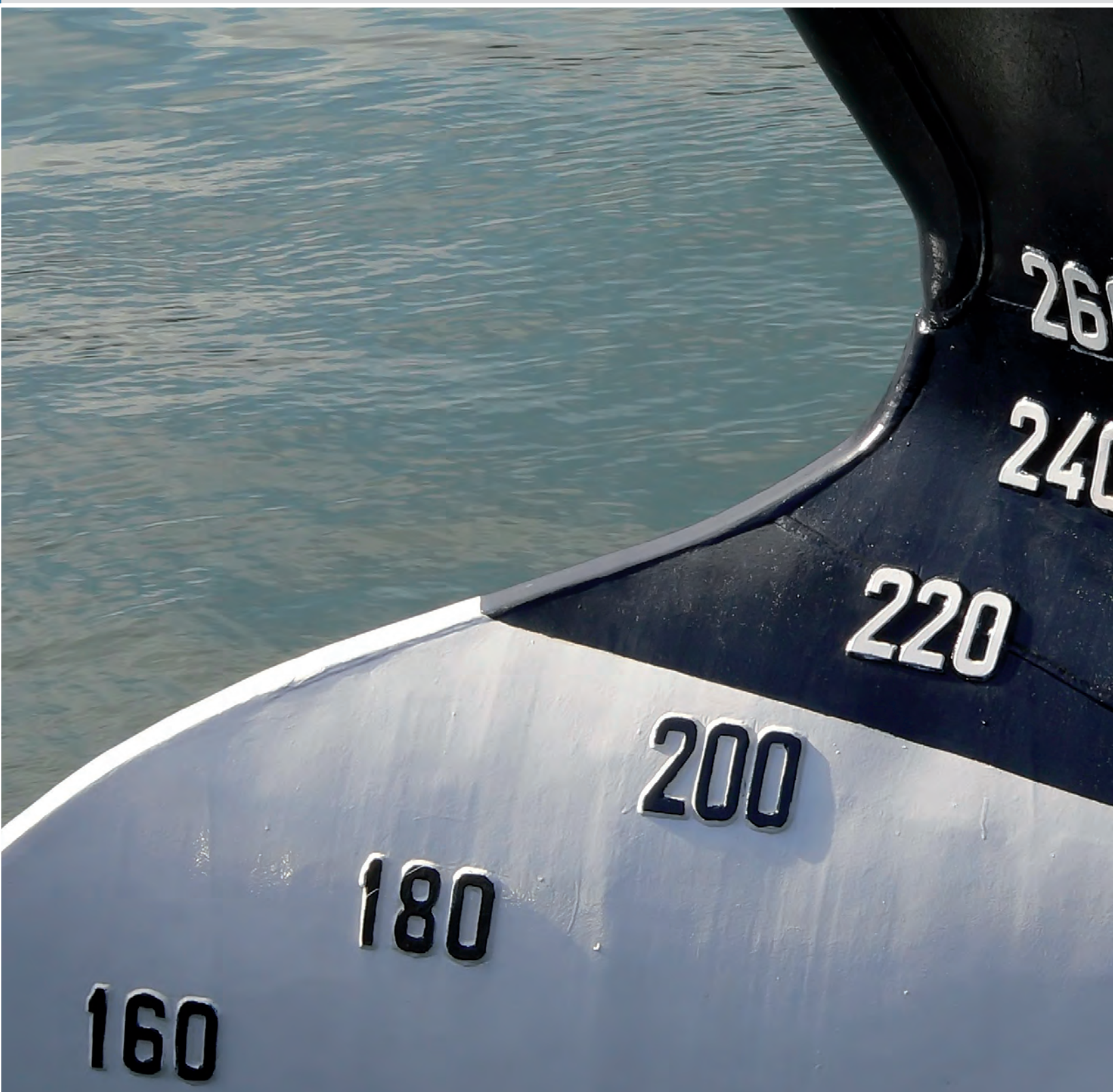




ELAC Nautik

Navigation Echo Sounder LAZ 5100

Reliable Depth Information for Safe Navigation





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The LAZ 5100 is the latest navigation echo sounder of L-3 ELAC Nautik, available as single- or dual-frequency unit. Various transducers with frequencies from 24 kHz to 200 kHz can be operated and the maximum measuring range is 2,000 m.

General

The water depth below a vessel is one of the most important information for safe navigation. The LAZ 5100 navigation echo sounder guarantees a reliable detection of the sea bottom in shallow as well as in deep water and is designed for an automatic and smooth operation. It meets the requirements of IMO for navigation equipment and is type approved by BSH, USCG and CCS.

Best selling navigation aid

Until today already more than 6,500 units have been sold. The LAZ 5100 is suitable for vessels of all sizes and can be used both for new buildings and moderniza-

tion projects. It can operate a variety of transducers both of L-3 ELAC Nautik and other manufacturers, thus it is qualified for an easy modernization and repair of navigation echo sounder systems.

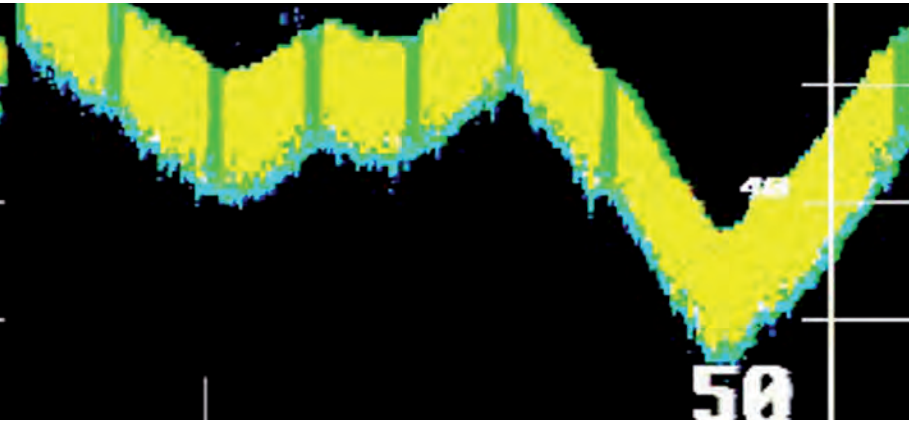
Improved design

The electronic unit can operate 8 different frequencies and a menu controlled transducer and performance setting allows an easy set-up of the echo sounder system. The large 10.4" high resolution display shows detailed depth information. The water depth is presented as a colored echogram to show the trend of the water depth below to vessel. In addition the current water depth is displayed digitally together with information about the ship's position, date and time. The display can be dimmed in 9 steps for a non-dazzling readout during twilight and night.

Key Features

- Meets IMO requirements
- Single or dual frequency version
- Interfaces to ship navigation system
- 24 hours data storage for depth, position, date and time
- Menu guided operation
- Mute control for acoustic alarms
- Large variety of transducers can be operated
- Automatic and reliable operation in shallow and deep water





System Overview

Sophisticated and Approved

Reliable operation

The menu guided operation with direct access to all functions enables the operator to set-up the echo sounder system to his requirements. Automatic gain control and TVG give reliable bottom detection both in shallow and deep water without additional actions of the user. An internal memory of 24 hours stores the depth, position, date and time.

Easy interfacing

All required input and output interfaces are available to integrate the LAZ 5100 into the ship's navigation system. NMEA inputs and outputs, VGA and a centronics interface are provided to connect peripheral devices, like digital slave displays and printers.



All you need to interface the LAZ 5100 with your ship

Transducers

L-3 ELAC Nautik has developed special transducers for the operation with the LAZ 5100. Together with the transducer LSE 297 (50 kHz), LSE 329 (100 kHz) and LSE 313 (200 kHz) the echo sounder system provides an excellent performance and combines long ranges with high resolution.

All LAZ 5100 navigation echo sounders and transducers are developed and manufactured at L-3 ELAC Nautik's factory in Kiel (Germany) and have to pass

an extensive quality control process. This 100% quality control ensures that the delivered components are without any defects and the echo sounder system will operate at maximum performance.



Transducer LSE 297



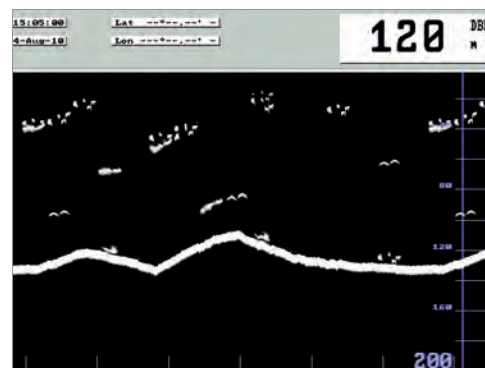
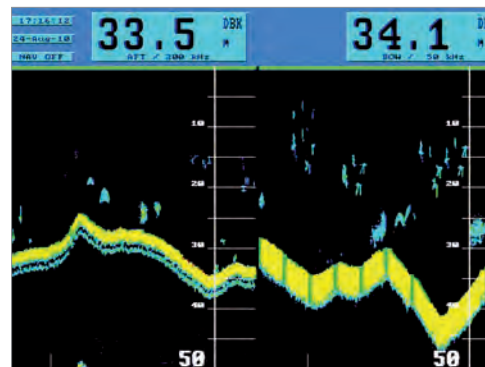
Optional slave display DAZ 25

Specifications and Technical Data

LAZ 5100 at a Glance

Technical Data	
Frequencies	24/28/30/33/38/50/100/200 kHz Single or dual frequency; compatible with a variety of existing transducers
Transducer impedance	50-150 Ω
Display of data	10.4" graphic TFT color display; selection of display layout; night or day display mode; optional printer
Basic scale ranges	0-10/20/50/200/500 or 2,000 m
Units	Meters, fathom, feet selectable
Measuring accuracy	Better than ± 1% of depth reading
Minimum sounding depth	approx. 0.5 m (below transducer)
Trim correction	5 m
Draft correction	Up to 29.9 m
Output power	Adjustable, max. 1,000 W RMS (depending on transducer installed and range selected)
Pulse repetition rate	max. 180 pulses per minute
Gain control	TVG, automatic and manual gain control for bottom finding
Special features	Recording of time and date (internally generated); data output (depth values etc.), time and date; indication of position if externally available; Operator Fitness Check (OFC); mute control for acoustic alarm
Interfaces	Output: DPT according to NMEA 0183 and DIN EN 61162-1 Input: NAV data according to NMEA 0183 and DIN EN 61162-1
Environmental conditions	According to EN 60 945
Operating temperature	-15° to +55° C
Protection code	IP 53
Power supply	90-260 V AC, 50-60 Hz Optionally 10-30 V DC Supply voltage monitoring
Power consumption	approx. 35 W

Dimensions	
Weight	6.1 kg
Dimensions	288 (height) x 336 (width) x 150 (depth) mm
IMO compliant	
BSH	BSH/4612/4061453/09
USCG	165.107/6/1
CCS	HB07Q00001_01



Data displayed in dual frequency mode (above) and single frequency mode (using one of the system's various color options)