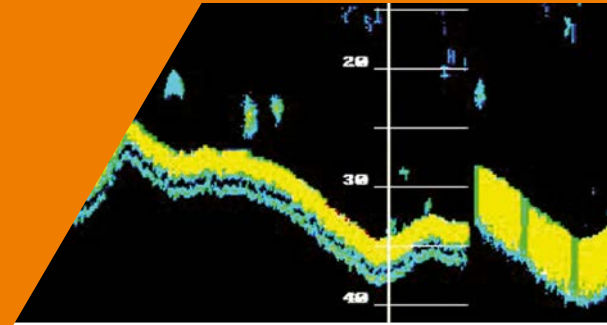


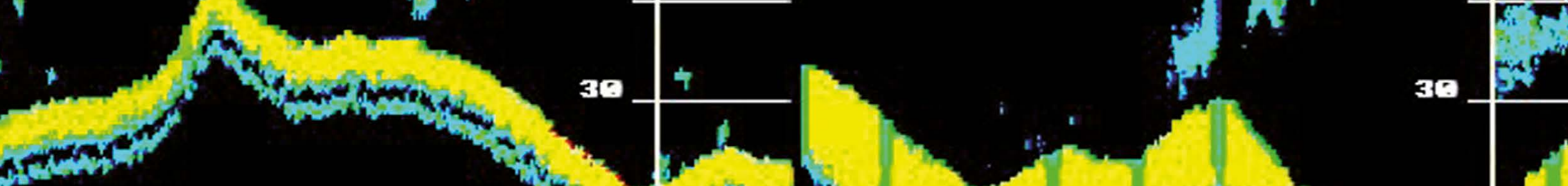
Wärtsilä ELAC LAZ 5100

Reliable depth information
for safe navigation



ELAC LAZ 5100 is a navigation echo sounder that guarantees reliable seafloor detection in shallow as well as in deep water. It is designed for an automatic and smooth operation, and available as single-or dual-frequency unit.





Wärtsilä ELAC LAZ 5100

Navigation echo sounder – reliable depth information for safe navigation

General

The ELAC LAZ 5100 navigation echo sounder has been developed by Wärtsilä ELAC Nautik. Various transducers with frequencies from 24 to 200 kHz can be operated with the echo sounder that meets the IMO requirements for navigation equipment. It is type-approved by BSH and CCS.

Bestselling navigation aid

ELAC LAZ 5100 is suitable for vessels of all sizes and can be used both for new constructions and modernisation projects. It can operate a variety of transducers both of Wärtsilä ELAC Nautik and other manufacturers. Thus, it is qualified for an easy modernisation and repair of navigation echo sounder systems. More than 7,000 units have been sold so far.

Improved design

The electronic unit can operate eight different frequencies. A menu-controlled transducer and performance setting allows an easy setup of the echo sounder system. The large 10.4" high-resolution display shows detailed depth information. The water depth is

presented as a coloured 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 nine steps for a non-dazzling readout during twilight and night.



Wärtsilä ELAC LAZ 5100

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 ELAC 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. This 100 % quality control ensures that the delivered

components are without any defects and that the echo sounder system will operate at maximum performance.

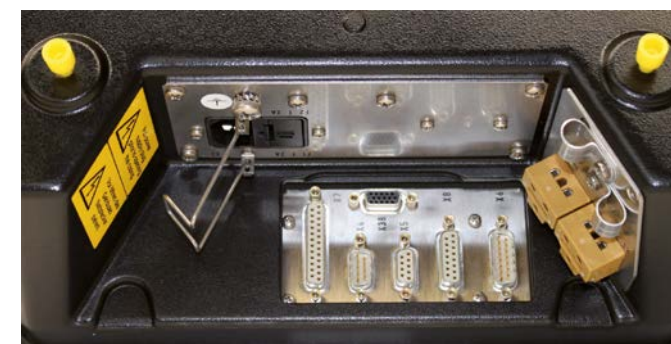
Transducers

Wärtsilä ELAC Nautik has developed special transducers for the operation with the ELAC LAZ 5100. Along with the transducers 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 ELAC LAZ 5100 navigation echo sounders and transducers are developed and manufactured at Wärtsilä ELAC Nautik's factory in Kiel (Germany) and have to pass an extensive quality control process.



Transducer LSE 297



ELAC LAZ 5100 – connector board



Slave display DAZ 25

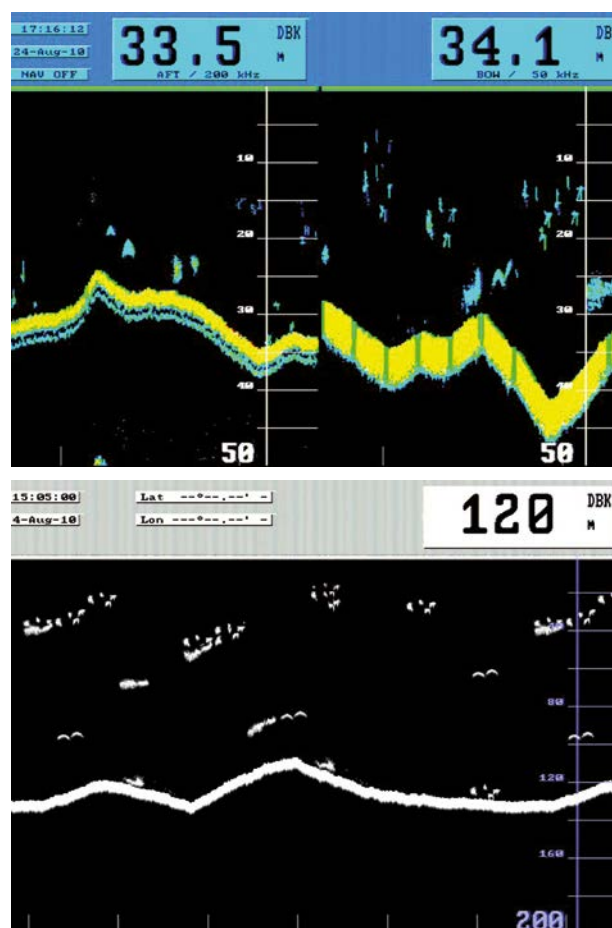
Specifications and technical data

Wärtsilä ELAC 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 colour display selection of display layouts night or day display mode optional printer
Basic scale ranges	0 - 10 / 20 / 50 / 200 / 500 / 2,000 m
Units (selectable)	Metres, fathoms, feet
Measuring accuracy	Better than $\pm 1\%$ 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 installed transducer and selected range)
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, DBT and ELAC according to NMEA 0183 and DIN EN 61162-1 Input: Navigation data according to NMEA 0183 and DIN EN 61162-1
Environmental conditions	According to EN 60945
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 (H) x 336 (W) x 150 (D) 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 (below, using one of the system's various colour options)