

DEBEG 4630

Navigation Echosounder



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The new generation for navigation

Full color echogram across 10.4-inch daylight-viewing TFT LCD screen with 3 selectable background colors.

The DEBEG 4630 provides detailed depth information and meets the IMO based specification.

It is universally applicable for navigation purposes from shallow to deep waters and can be operated with one or two transducers, 50 or 100 kHz single or dual channel operation covering 5 to 1000 meters of depth in 8 range steps manually or automatically. Depth read out in fathoms or feet is also available.

- Dual channel operation for frequencies of 50/100 kHz or 100/100 kHz (Option in type approval: 200 kHz)
- Dual channel with a single keypress selecting channel 1 or channel 2 or Split Screen
- The vertical split display shows left half channel 2 information, right half channel 1 information

Shows LAT/LON and water temperature data in addition to sounding data and associated date/time when appropriate optional sensor are plugged in. These types of data are automatically output via RS-232C and RS-422 ports for use by ECDIS, VDR and other onboard electronics.

Up to 24 hours of sounding and other data are automatically stored in non-volatile (flash) memory protected from power outage/shutoff or system reset.

Stored data can be displayed graphically as well as digitally in a special data history window accessible with a single keypress, and can be uploaded to a PC for off-line processing and analysis. A graphics printer can be plugged into a devoted rear panel connector to print out a monochrome hard copy of the current echogram.

Echogram feed rate can be changed in 3 steps for extended display period across the Screen without affecting the current echogram.

An extensive alarm function audibly and visually warns the navigator against decreasing depth, missing or weakening bottom echo, power supply voltage drop and power outage.

Both, AC and DC power supplies are built in, with automatic switchover to DC power source in the event of AC power line failure.

Complies with IMO Resolution MSC.74(69) and Wheel Mark regulation.

Repeater Units

- Universal Digital Repeater (UDR)
- Digital Repeater SD2-3 with depth alarm

Technical data

Display Screen:	10,4 inch 7-analog RGB-color TFT-LCD, VGA (640x480 pixels)
Transducer Frequencies:	50 and 200 kHz, single housing, 100 kHz with housing, 50 kHz with housing
Depth ranges:	5, 10, 20, 40, 100, 200, 400, 1000m (2.5-500 fathoms or 20-4000 feet)
Minimum Detectable Depth:	0,5m (200 kHz), 1m (50kHz)
Transmitter Power:	Approx. 1kW RMS adjustable in 4 steps (1/1, 1/4, 1/25, 1/100) automatically for range in use or manually
Sounding Rate:	120 to 30/minute automatically selected for range in use
Accuracy:	Better than $\pm 0,5$ meters (20m range), ± 5 m (200m range)
Data Storage:	Up to 24 hours of data in non-volatile memory. Up to 10 minutes of full color echogram in temporary storage
Data Retrieval:	Data of past 15 min., 1, 3, 6, 12, and 24 hours via history window
Echogram Feed Rates:	1/1, 1/2, 1/4, 1/8, 1/16, freeze
Echogram Presentation:	7 analog RGB colors, depending on strength
Echo Dynamic Ranges:	3, 4, 5 and 6 dB
Echogram Display Duration:	Approx. 20 minutes at fastest feed rate
Background Colors:	Dark blue, black and white
Noise Reduction:	3 steps
Alarms:	Depth (shallow), missing bottom, voltage drop, power shutoff (audible only) Alarm output available via open collector
Dimension and Weight:	366W X 275H X 110D mm (cabinet), 6,6 kg (with mounting bracket)
Power Requirements:	110 - 230 VAC or 11 to 40 VDC, approx. 1.5 A at 12 V
Ambient Temperature:	-15 to + 55° C, 95% RH (operating without condensation) -40° (storage)
Compass Safe Distance:	1,2 meters
Data I/O Interface:	NMEA-0183 sentence via RS-232C and RS-422 ports and 8 pin I/O DATA connector
Printer Output:	Centronics parallel, for monochrome printers with ESC/P protocol
Temperature Sensor:	T-200 thermistor (option)