

Navigational echo sounder

EN-200



IS APPLIED

for measuring under-keel clearance of displacement-type sea and river ships, including hydrofoil ships

FEATURES:

- Various modes of operation
- Two types of small size hydro acoustic antennas for displacement-type ships and hydrofoil ships
- Data display on high-contrast EL display VGA 8.1" with 160° viewing angle
- Electronic 12-hour recording of depth data with reference to time and coordinates
- Automatic selection of depth range and scale of bottom profile displaying
- Scaling-up depth displaying at the selected area
- Input of corrections for the antenna installation height with regard to the most sunk ship part
- Digital interface for communication with shipborne systems
- Cable routing between the antenna and primary device up to 110 m long



CERTIFIED BY



the Russian River Register



the Russian Maritime Register of Shipping



Automatic selection of depth range and scale of bottom profile displaying mode is provided. In this mode optimal bottom sounding frequency and receiver sensitivity depending on the depth can be set. Reechoed signals are filtered during navigation in soundings.

THE FOLLOWING MODES ARE PROVIDED IN ADDITION THE BASIC:

- Manual selection of depth measurement range
- Sound and light signaling of ship reaching the prescribed depth
- Change of time interval for depth display

Two modifications of echo sounder are available differing in installation method.

Modification EN-200N: hydroacoustic antenna is installed on ship's bottom in the gate valve. Antenna small diameter and installation method ensure high level of its protection from mechanical damages when sailing in soundings and in slow ice.

Modification EN-200K: hydroacoustic antenna is fixed on the stationary part of hydrofoil ship. Such installation ensures depth measurement both in displacement position and foilborne condition.

Echosounder EN-200 is easy-to-use, reliable and equipped with semiautomatic system of fault monitoring.

System main advantage is long continuous operation without special maintenance.

Data reception and output in IEC 61162-1 are provided for communication with shipborne systems.

SPECIFICATIONS

Depth measurement range	0.4-200 m
Maximum instrument error in modulus:	
for depth below 20 m	0.1 m
for depth over 20 m	0.5 % of measured depth
Measuring error (sound speed in the water 1500 m/s)	±0.1 m or ±2 % (the larger value)
Scales of depth graphical display	8, 20, 40, 80, 160, 200 m
Interface (IEC61162-1)	
Input GGA, GLL, RMC	
Output SDDPT	
Power consumption	
Mains 50 Hz 220 V AC	maximum 20 W
Mains 24/27 V DC	maximum 20 W
Range of operating temperatures	from -15 to +55 °C
Time of readiness (assigned accuracy provision)	
for depth below 20 m	15 s
for depth over 20 m	100 s

