

CEE-LINE™

Next Generation Pole-Mounted Echo Sounder

The CEE-LINE™ represents a next generation approach to GNSS pole-mounted bathymetry surveys.

Professional Grade High Quality Echo Sounder

Containing a super-fast modern processor running advanced bottom tracking algorithms, the CEE LINE™ keeps a solid lock on the bottom even in very shallow water.

With a ping rate up to 10Hz and two frequency channels 33 kHz / 200 kHz available, the CEE LINE™ continuously streams accurate depth data every tenth of a second, ready to be incorporated into the GNSS topographic dataset as a modified point elevation.

Practially Indestructible

Manufactured to exceptional quality standards, the CEE-LINE™ will withstand years of field work plus more extreme abuse with encapsulated electronics inside a housing machined from a solid aluminium tube and ceramically coated.

Compatible with GNSS Acquisition Software

The CEE-LINE™ can be used with practically all GNSS data collection equipment.

The CEE-LINE™ can be trusted to work seamlessly with common acquisition utilities such as Trimble Access, Carlson SurvCE, LEICA SmartWorx, Captivate, and Topcon MAGNET Field as well as conventional hydrographic survey software.

Use with Field Data Collectors, Rugged Tablets

The CEE-LINE™ is designed to operate with hand controllers using either a USB or COM port interface. Simply plug the data / power cable into the acquisition device and bring in the echo sounder depth data.

The CEE-LINE™ outputs several formats for trouble-free integration into GNSS continuous topo data recording.

No Battery Required

The USB smart cable offers a simple and reliable data and power interface with the CEE-LINE™.

With a low power draw – especially when working in shallow water – the battery run time on a connected data collector will not decrease excessively even with the acquisition device powering the CEE-LINE™.



www.ceehydro.com



CEE-LINE ECHO SOUNDER™

General Specifications

Physical

Dimensions	22 x 3.6 x 3.6 cm (L x W x D) 8.7" x 1.4" x 1.4"
Weight	408 g (0.9 lbs)
Colour	Various
Connectors	LEMO 2K

Environmental

Operating temperature	0°C – 50°C (32°F – 122°F)
Humidity	100% condensing with connectors mated or caps installed
Ingress protection rating	IP68

Power

Power consumption	1.8 W (typical with 2.5 W peaks)
Power supply	4.5 - 24 VDC

Data Output

Formats	NMEA DBT, NMEA DBS, DESO 25, ODOM, CEESTAR, CEEDUCER, SONARMITE
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Connectivity

RS232 x 2	Serial data cable
USB	Baud rate 4800 – 115200 bps

Echo Sounder

Mode	Auto, Shallow Auto and Manual
Frequency	High Frequency: 190 kHz - 210 kHz Low Frequency: 30 kHz – 36 kHz
Output power	174 W
Resolution	1 cm
Accuracy	0.01 m +/- 0.1% of depth @ 200 kHz
Depth range	0.3 – 100 m (0.9 – 328 ft) @ 200 kHz 0.5 - 100 m (1.6 - 328 ft) @33 kHz
Sound velocity	1350 – 1750 m/s (4,429 - 5,741 ft) Resolution 1 m/s
Transducer draft setting	0 – 10 m (1 cm increments)
Index offset	0 – 10 m
Blanking	High Frequency: 0.3 - 10 m Low Frequency: 0.5 - 10 m
Ping rate	10 Hz (20 Hz optional), depth dependent
Pulse length	200 kHz 1-34
TVG	None, LOG 10, LOG 20
Manual gain	30 – 100%
Detection threshold	10 – 50%

Transducer Options

Standard 200 kHz	9° beam width @ -3dB
Narrow beam 200 kHz	3° beam width @ -3dB
Dual 200/33 kHz	8°/19° beam width @ -3dB
Dual 200/24 kHz	4°/24° beam width @ -3dB

CEE-LINE Surveying Kit

For convenient installation on small boats, the 200 kHz CEE-LINE echo sounder is available in a surveying kit with custom brackets and mounting hardware.

Everything needed to start hydrographic surveys with a data collector, tablet, or PC is included in the Pelican 1560 roller case.



- specifications are subject to change
- visit www.ceehydrosystems.com for the complete list of specifications
- v19276

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