

# CEEPULSE™ 100 series

The next generation black box survey echo sounder.

The CEEPULSE™ is CEE HydroSystems™ entry level black box survey grade echo sounder. Using the experience we gained from the development of the CEESCOPE™ high definition echo sounder, the CEEPULSE™ offers a true 0.3-100 m (0.98-328.1 ft) depth capability.

This compact unit has a membrane interface that was designed to be simple to use and features 6 LEDs to display current system status.

The CEEPULSE™ configurable echo sounder modes include auto, shallow auto and manual.

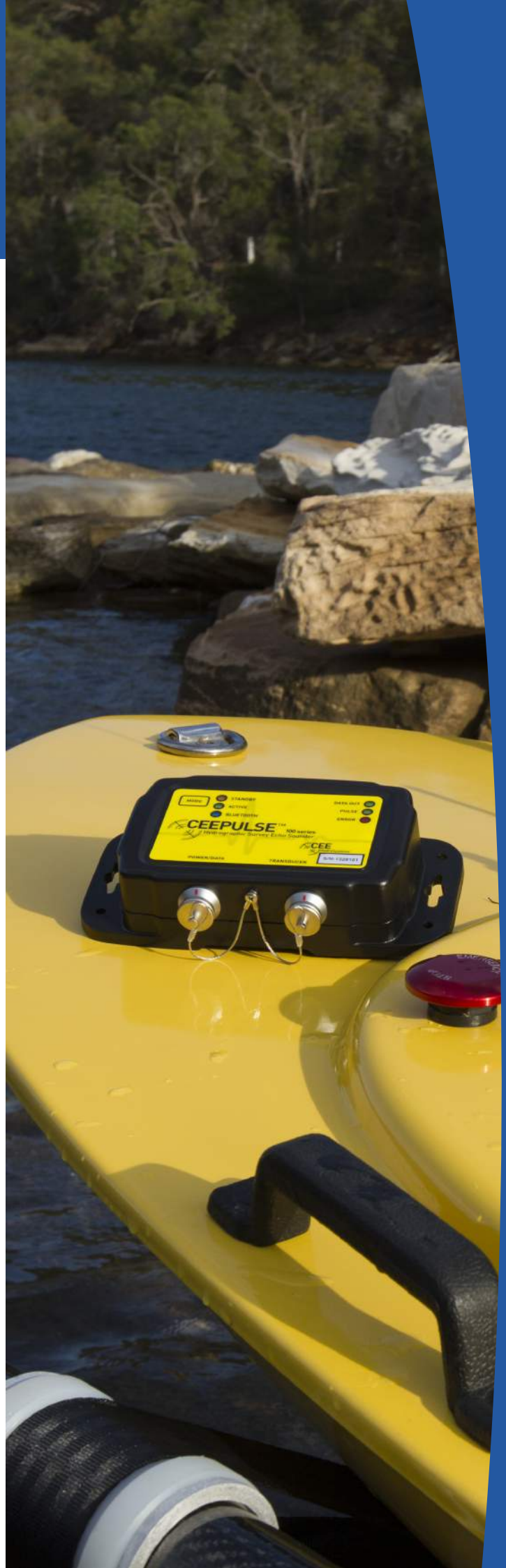
The CEEPULSE™ is capable of up to 20 Hz ping rate and matching data output. Data outputs include industry standard NMEA DBT, NMEA DBS, DESO 25, ODOM, CEESTAR™ and CEEPULSE™. Echo sounder data can be output via RS232, RS422 and Bluetooth.

The unit has been designed and manufactured using high quality components and is environmentally sealed. It has extremely low power consumption and a wide input voltage range.

The user friendly CEEPULSE™ PC software configures the unit via Bluetooth or RS232.



[www.ceehydro.com](http://www.ceehydro.com)



# CEEPULSE™ 100 series

## General Specifications

### Physical

Dimensions	18 x 9 x 4 cm (L x W x D) 7.1" x 3.5" x 1.6"
Display	Status LEDs
Weight	450 g (1 lbs)
Colour	Black
Connectors	LEMO 1K

### Environmental

Operating temperature	-5°C – 50°C (32°F – 122°F)
Humidity	95% non condensing
Ingress protection rating	IP68

### Power

Power consumption	1.8 watts
Power supply	Nominal 12.0 VDC @ 1A (12-24 VDC range)

### Data Output

Formats	NMEA DBT, NMEA DBS, DESO 25, ODOM, CEESTAR, CEEPULSE
Baud rate	9600 – 115200 (RS232, RS422)

### Connectivity

RS232	Serial data cable
Bluetooth*	Baud rate 9600 – 57600, 10 m range (internal antenna)
RS422	Serial data cable (optional)

### Echo Sounder

Mode	Auto, Shallow auto and Manual
Frequency	High band: 190 kHz – 210 kHz
Output Power	High: 200 kHz – 172 W RMS max
Resolution	1 cm
Accuracy	0.01 m +/- 0.1% of depth @ 200 kHz
Depth range	0.3 – 100 m (0.98 – 328 ft) @ 200 kHz
Sound Velocity	1350 – 1750 m/s Resolution 1 m/s
Transducer Draft Setting	0 – 10 m (1 cm increments)
Index Offset	0 – 10 m
Blanking	27 – 300 cm
Ping rate	10 Hz (20 Hz optional)
Pulse length	200 kHz 1-30 cycles
TVG	None, LOG 10, LOG 20
Manual gain	30 – 100%
Detection threshold	10 – 50%

### Transducer Options

Standard 200 kHz	200 kHz, 9° beam width @ -3dB
Narrow Beam 200 kHz	200 kHz, 3° beam width @ -3dB

\* Line of sight  
- Specifications are subject to change  
- Visit [www.ceehydrosystems.com](http://www.ceehydrosystems.com) for the complete list of specifications  
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