

Echologger ECT400 /EGT400/ ECS400

Ultra-compact Precision Echosounder

by EofE Ultrasonics Co., Ltd.

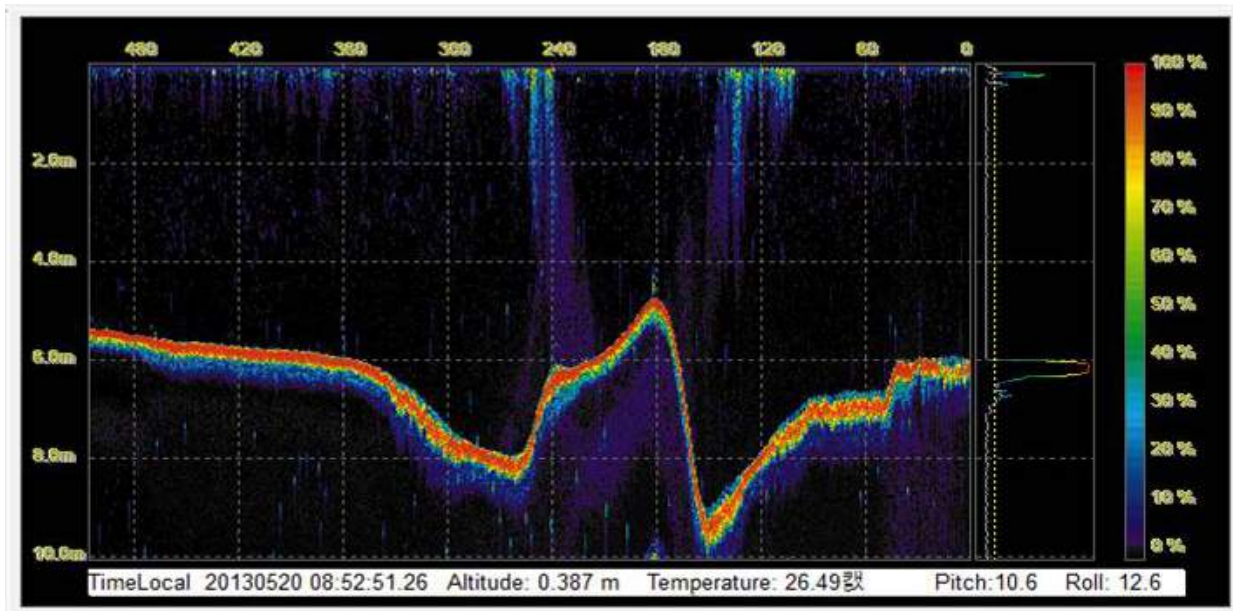
Features

Professional Echosounder for Precision Hydrographic Survey
One of the smallest in the market with full electronics included

Backscatter data along full water columns (ASCII text format)
Compatible with commercial hydrographic software with NMEA0183 format
Tilt sensor integrated (Optional)
High speed communication rate (up to 921kbaud)
Versatile adjustable parameters
 Ping rate up to 10 Hz
 Speed of sound
Small dead zone (less than 15cm)

Applications

- Seabed mapping (bathymetry)
- Scour monitoring
- Sediment move monitoring
- Navigation



Specification

Acoustic Frequency	450 KHz
Beam width	5° Conical (-3dB)
Transmit Pulse Width	10μsec ~ 200μsec (10μsec step)
Transmit Power	Up to 50 W, Auto-adjust
TVG Control	Up to 60 dB,
Gain Control	-30 dB to +30 dB
Ranges	0.15 m ~ 100 m (450kHz)
Housing Material	Acetal(ECT/EGT), Aluminum(ECS)
Connector	SEACON MCBH8MSS (ECT & ECS)
Repetition (Ping) Rate	10 Hz max
Sampling Rate	100 kHz max
Water Column Resolution	7.5 mm
Altimeter Range Resolution	1.0 mm
Temperature sensor Resolution	0.1°C
Tilt sensor integrated (optional)	Dual-axis (Roll & Pitch) ±90°
Digital output interface	RS232/485/422
Communication Speed	4800 ~ 921600 baud (115200 baud default)
Data Output Format	Profile (ADC 1024bit) in ASCII Text NMEA0183 & Simple altitude
Power Supply	10 ~ 75 VDC, 2W max
Dimensions	ECT/EGT: D56x L85 , ECS: D55xL70(w/o connector)
Weight	270g (ECT), 310g (ECS)

ECS400



ECT400



EGT400



Pinouts

Pin number	Signal name	Description
1	+V Power	Input Power = +8V ... +75V DC, 2W max. Reverse Polarity protected
2	GND	Common wire for power and signal lines
3	RXD / TRX+ / RX+	RS-232 Input, or RS-485 Input/Output line "A", or RS-422 Input line "A"
4	TXD / TRX- / RX-	RS-232 Output, or RS-485 Input/Output line "B", or RS-422 Input line "B"
5	TX+	RS-422 Output line "Y"
6	TX-	RS-422 Output line "Z"
7	SYNC I/O	Synchronization Input/Output line. Input Pulse Length of more than 10us.
8	NC	Not Connected

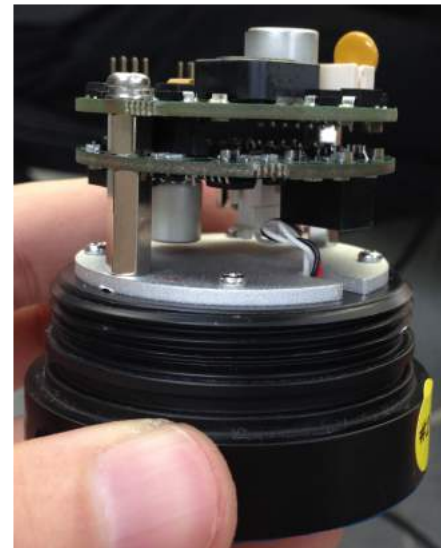
Micro WET-CON Bulkhead Connector Male Plug
Seacon MCBH8MSS



Modular supply



For Borehole inspection, AUVs, SUVs, Drones etc.



Versatile parameter setting using commands or GUI software

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Commands:
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- #help
- #go      (goto Work Mode)
- #default (set default Settings)

Device ID: 0200 Echologger 450000 Hz Type USB / RS-232

- #range [10000 mm ] Range, 1000 ~ 100000
- #interval [ 1.00 sec ] Interval between pulses, 0.
- #threshold [ 10 % ] Threshold, 0 ~ 100% Full Sc
- #offset [ 0 mm ] Offset, -+1000
- #deadzone [ 300 mm ] Dead Zone 0 ~ 1000
- #txlength [ 20 uks ] TX Pulse length, 10 ~ 100
- #sound [ 1500 mps ] Sound speed, mps
- #output [ 3 ] Output format 1,2,3..
- #gain [ 0.0 dB ] Analog Gain, -30~+30
- #tvemode [ 1 ] TVG Curve type, 0,1,2,3
- #tvgs [ 1.00 ] TVG Curve Slope, 0.1~10
- #speed [115200 ] Baud Rate, 4800-921600
- #syncextern [ 0 ] Sync Pulse External, 0,1 -
- #syncextmod [ 1 ] External Sync Pulse edge, 0
- #syncoutpol [ 1 ] Sync Pulse Output, 0,1 - Lo
- #nmeadbt [ 1 ] NMEA DBT message output, 0,
- #nmeadpt [ 1 ] NMEA DPT message output, 0,
- #nmeamtw [ 1 ] NMEA MTW message output, 0,
- #nmeaxdr [ 1 ] NMEA XDR message output, 0,
- #nmeaema [ 1 ] NMEA EMA message output, 0,
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Echosounder Parameters:

Range, m	20
Tx Length, uks	20
Interval, sec	0.2
Deadzone, mm	300
Offset, mm	0
Altimeter Threshold, %	10
Gain, dB	0 dB
Sound speed, mps	1500
Output Mode	Echosounder
Re-read para	Altimeter NMEA
Device: Echologger	Altimeter Simple
GPS Data	Echosounder Fixed 200 Samples
	Echosounder Fixed 500 Samples
	Echosounder Fixed 1000 Samples

Coming soon!!!

Dual-frequency precision Echosounders
Echologger ECT D24/EGT D24/ ECS D24

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