

2D Horizontal Profiler 400 kHz- Legacy

300 m



This version of the 2D Horizontal Profiler is no longer available.

Please see the 2D Horizontal Profiler Generation 2.

This version of the 2D Horizontal Profiler remains functional and supported. Please visit our <u>support center</u> if you require assistance.

Highlights

Applications

Technical specifications

Water velocity measurements		
Maximum profiling range	100-130 m	
Cell size	1.0-8.0 m	
Number of cells	Typical 20-40, max. 128	
Velocity range	±10 m/s horizontal, ±5 m/s along beam	
Accuracy	$\pm 1\%$ of measured value ± 0.5 cm/s	
Velocity precision	Consult instrument software	
Maximum output rate	1 Hz	
Internal sampling rate	3 Hz	

Echo intensity	
Sampling	Same as velocity
Resolution	0.45 dB
Dynamic range	90 dB
Transducer acoustic frequency	400 kHz
Number of beams	2, slanted at 25°
Beam width	0.85° (1.7° total)
Beam width vertical beam	N/A

Wave measurement option (AST)		
Maximum depth	N/A	
Data types	N/A	

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Wave measurement option (AST)	
Sampling rate velocity (output)	N/A
Sampling rate AST (output)	N/A
No. of samples per burst	N/A
Wave estimates	
Range	N/A
Accuracy/resolution (Hs)	N/A
Accuracy/resolution (Dir)	N/A
Period range	N/A
Cut-off period (Hs)	N/A
Cut-off period (dir)	N/A
Sensors	
Temperature:	Thermistor embedded in housing
Temp. range	-4 to +40 °C
Temp. accuracy/resolution	0.1 °C/0.01 °C
Temp. time response	< 5 min
Compass:	Magnetoresistive
Accuracy/resolution	2°/0.1° for tilt <15°
Tilt:	Liquid level
Accuracy/resolution	0.2°/0.1°
Maximum tilt	30°
Up or Down	Automatic detect
Pressure:	Piezoresistive
Range	0-100 m
Accuracy	0.5% of full scale (optional 0.1% of full scale)
Resolution	0.005% of full scale
Analog inputs	
No. of channels	2
Supply voltage to analog output devices	Three options selectable through firmware commands: 1) Battery voltage/500 mA, 2) +5 V/250 mA, 3) +12 V/100 mA
Voltage input	0-5 V
Resolution	16-bit A/D
Data recording	
Capacity	9 MB, can add 4/16 GB
Profile record	Ncells*9 + 120 bytes
Wave record	N/A
Mode	Stop when full (default) or wrap mode
Real-time clock	
Accuracy	±1 min/year
Backup in absence of power	1 year
Data communications	

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I/O	RS-232 or RS-422. Software supports most commercially available USB-RS-232 converters	
Communication baud rate	300-115200 Bd	
Recorder download baud rate	600/1200 kBd for both RS-232 and RS-422	
User control	Handled via "AWAC" software, or ActiveX®controls.	
Output formats	NMEA, Binary. Prolog provides same types also for processed wave and current data	
Connectors		
Bulkhead	MCBH-2-FS, MCBH-8-FS, optional Souriau M-series metal connector for online use	
Cable	PMCIL-8-MP on 10 m polyurethane cable	
Software		
Functions	Deployment planning, instrument configuration, data retrieval and conversion (for Windows $\ensuremath{\$}$)	
Power		
DC input	9-18 V DC	
Maximum peak current	3 A	
Avg. power consumption	Typical 1 W when sampling	
Sleep current	< 100 μΑ	
Transmit power	1-30 W, 3 adjustable levels	
Environmental		
Operating temperature	-4 to +40 °C	
Storage temperature	-20 to +60 °C	
Shock and vibration	IEC 721-3-2	
EMC approval	IEC 61000	
Depth rating	300 m	
Materials		
Standard model	POM and polyurethane plastics with titanium fasteners	
Dimensions		
Maximum diameter	306 mm	
Maximum length	203 mm	
Weight		
Weight in air	8.8 kg	
Weight in water	3.2 kg	
Online cable		

Polyurethane jacket, Shore D hardness, 13 mm in diameter, max 2 km. Inquire for longer cables

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