

Aquadopp Profiler Z- Cell 600kHz - Legacy



This version of the Aquadopp Profiler Z-Cell is no longer available.

Please see the <u>Aquadopp Profiler Z-Cell Generation 2</u>.

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

Highlights

Applications

Technical specifications

Maximum profiling range	30-40 m
Cell size	1-4 m
Minimum blanking	0.50 m when profiling; 0 m when Z-Cell enabled
Maximum number of cells	96
Measurement cell position	N/A
Default position (along beam)	N/A
Velocity range	±10 m/s
Accuracy	$\pm 1\%$ of measured value ± 0.5 cm/s
Velocity precision	Consult instrument software
Maximum sampling rate (output)	1 Hz
Internal sampling rate	3 Hz

Z-Cell option	
Cell zero acoustic frequency	2 MHz
Maximum profiling range	0.4-0.9 m
Number of beams	2

Echo intensity (along slanted beams)		
Sampling	Same as velocity	
Resolution	0.45 dB	
Dynamic range	90 dB	
Transducer acoustic frequency	600 kHz	

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Echo intensity (along slanted beams)		
Number of beams	3	
Beam width	3.0°	
Sensors		
Temperature:	Thermistor embedded in head	
Temp. range	-4 to +40 °C	
Temp. accuracy/resolution	0.1 °C/0.01 °C	
Temp. time response	10 min	
Compass:	Magnetometer	
Accuracy/resolution	2°/0.1° for tilt < 20°	
Tilt:	Liquid level	
Accuracy/resolution	0.2°/0.1°	
Maximum tilt	30°	
Up or Down	Automatic detect	
Pressure:	Piezoresistive	
Range	0-100 m (inquire for options)	
Accuracy/precision	0.5% FS / 0.005% of full scale	
Data recording		
Capacity	9 MB, can add 4/16 GB	
Data record	9*Ncells + 32 bytes	
Diagnostics record	N/A	
Wave record	Nsamples * 24 + 60 bytes	
Mode	Stop when full (default) or wrap mode	
Real-time clock		
Accuracy	±1 min/year	
Backup in absence of power	4 weeks	
Data communications		
I/O	RS-232 or RS-422	
Communication baud rate	300-115200 Bd	
Recorder download baud rate	600/1200 kBd for both RS-232 and RS-422	
User control	Handled via "Aquadopp" software, ActiveX®function calls, or direct commands with binary or ASCII data output	
Software		
Functions	Deployment planning, instrument configuration, data retrieval and conversion (for Windows $\ensuremath{\$}$)	
Power		
DC input	9-15 V DC	
Maximum peak current	3 A	
Avg. power consumption	0.06 W	
Sleep current	< 100 μΑ	
Transmit power	0.3-20 W, 3 adjustable levels	

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Batteries		
Battery capacity	50 Wh (alkaline or Li-ion), 165 Wh (lithium), Single or dual	
New battery voltage	13.5 V DC	
Environmental		
Operating temperature	-5 to +40 °C	
Storage temperature	-20 to +60 °C	
Shock and vibration	IEC 721-3-6	
EMC approval	IEC 61000	
Depth rating	300 m	
Connectors		
Bulkhead	MCBH-8-FS	
Cable	PMCIL-8-MP on 10 m polyurethane cable	
Materials		
Standard model	POM and polyurethane plastics with titanium fasteners	
Dimensions		
Maximum diameter	100 mm	
Maximum length	$\sim\!550$ mm (single battery), +110 mm (double battery) depending on head configuration	
Weight		
Weight in air	2.9 kg	
Weight in water	0.4 kg	

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