

Aquadopp Profiler Z-Cell 600kHz - Obsolete



**No longer available.
See new version.**



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

Please see the [Aquadopp Profiler Z-Cell 2](#).

Highlights

Applications

Technical specifications

→ Water velocity measurements

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
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®)
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→ Power

DC input	9-15 V DC
Maximum peak current	3 A
Avg. power consumption	0.06 W
Sleep current	< 100 µA
Transmit power	0.3-20 W, 3 adjustable levels

→ 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
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→ Dimensions

Maximum diameter	100 mm
Maximum length	~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