

Aquadopp Profiler 400 kHz - Legacy



This version of the Aquadopp Profiler is no longer available.

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

This version of the Aquadopp remains functional and supported. Please visit our [support center](#) if you require assistance.

Highlights

Applications

Technical specifications

Water velocity measurements	
Maximum profiling range	60-90 m
Cell size	1-8 m
Minimum blanking	1 m
Maximum number of cells	128
Measurement cell position	N/A
Default position (along beam)	N/A
Velocity range	±10 m/s
Accuracy	±1% of measured value ±0.5 cm/s
Velocity precision	Consult instrument software
Maximum sampling rate (output)	1 Hz
Internal sampling rate	3 Hz
Echo intensity (along slanted beams)	
Sampling	Same as velocity
Resolution	0.45 dB
Dynamic range	90 dB
Transducer acoustic frequency	400 kHz
Number of beams	3
Beam width	3.7°
Sensors	
Temperature:	Thermistor embedded in head

Sensors

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	0.1 W
Sleep current	< 100 µA
Transmit power	0.3-20 W, 3 adjustable levels

Batteries

Battery capacity	1) 50 Wh (alkaline or Li-ion), 2) 165 Wh (lithium), 3) Single or dual
New battery voltage	13.5 V DC (alkaline)

Environmental

Operating temperature	-5 to +40 °C
Storage temperature	-20 to +60 °C
Shock and vibration	IEC 60068-1/IEC60068-2-27/IEC60068-2-64
EMC approval	IEC 61000
Depth rating	300 m

Connectors

Bulkhead	MCBH-8-FS
Cable	PMCIL-8-MP on 10m polyurethane cable

Materials

Standard model	POM and polyurethane plastics with titanium fasteners
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Dimensions

Maximum diameter	117 mm
Maximum length	~600 mm (single battery), +110 mm (double battery) depending on head configuration

Weight

Weight in air	3.4 kg
Weight in water	0.2 kg