12/21/2024

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
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

→ Data recording	
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®)
→ 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
→ Dimensions	
Maximum diameter	117 mm

→ Dimensions	
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