Aquadopp 300 m - Legacy



This version of the Aquadopp is no longer available.

Please see the Aquadopp Generation 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	N/A
Cell size	0.75 m
Minimum blanking	0.35 m
Maximum number of cells	1
Measurement cell position	0.35-5.0 m (user-selectable)
Default position (along beam)	0.35-1.85 m
Velocity range	±5 m/s
Accuracy	±1% of measured value ±0.5 cm/s
Velocity precision	Consult instrument software
Maximum sampling rate (output)	1 Hz, 4 Hz on request
Internal sampling rate	23 Hz

Echo intensity	
Sampling	Same as velocity
Resolution	0.45 dB
Dynamic range	90 dB
Transducer acoustic frequency	2 MHz
Number of beams	3
Beam width	3.4°

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	300 m
Accuracy/precision	0.5% FS / 0.005% of full scale

Analog inputs

No. of channels	2
Supply voltage to analog outputdevices	Three options selectable through firmwarecommands: 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
Data record	40 bytes
Diagnostics record	40 bytes
Wave record	40 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	300-115,200 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 withbinary 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	0.01 W
Sleep current	< 100 µA

Power	
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 721-3-2
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 housing

Dimensions	
Maximum diameter	75 mm
Maximum length	~500 mm (single battery) or +110 mm (double battery) depending on head configuration

Weight	
Weight in air	2.3 kg
Weight in water	Neutral