04/26/2024

Aquadopp 3000 m - Obsolete

This version of the Aquadopp is no longer available.
Please see the Aquadopp 2.

Highlights

Applications

Technical specifications

→ Water velocity measurements	
Maximum profiling range	N/A
Cell size	0.75 m
Minimum blanking	0.50 m
Maximum number of cells	1
Measurement cell position	0.5-5.0 m (user-selectable)
Default position (along beam)	0.50-2.0 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
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°
→ HR option	
Maximum profiling range	N/A
Cell size	N/A
Minimum blanking	N/A
Maximum number of cells	N/A
Range/Velocity limitations	N/A
Accuracy	N/A
Max. sampling rate	N/A
→ Z-Cell option	
Cell zero acoustic frequency	N/A
Maximum profiling range	N/A
Number of beams	N/A
→ 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

→ Sensors	
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	3000 m
Accuracy/precision	0.5% FS / 0.005% of full scale
→ Analog inputs	
No. of channels	2
Supply voltage to analogoutput devices	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	N/A
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 binaryor ASCII data output
→ Connectors	
Bulkhead	MCBH-8-FS
Cable	PMCIL-8-MP on 10 m polyurethane cable
→ Software	
Functions	Deployment planning, instrument configuration,data retrieval and conversion (for Windows®)
→ Power	
DC input	9-15 V DC
Maximum peak current	3 A

→ Power	
Avg. power consumption	0.015 W
Sleep current	< 100 µA
Transmit power	20 W
→ Batteries	
Battery capacity	50 Wh (alkaline or Li-ion), 165 Wh (lithium), 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	3000 m
→ Materials	
Standard model	POM housing
→ Dimensions	
Maximum diameter	84 mm
Maximum length	~500 mm (single battery) or +110 mm (double battery) depending on head configuration
→ Weight	
Weight in air	3.6 kg
Weight in water	1.2 kg
→ Options	

1) Alkaline, lithium or Li-ion external batteries, 2) Inquire for different head configurations