Aquadopp 3000 m - Obsolete



No longer available. See new version.

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	$\pm 1\%$ 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

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 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 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 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 Functions Poinput 9-15 V DC Maximum peak current 3 A	→ Sensors	
Accuracy/resolution 0.2°/0.1° Maximum tilt 30° 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 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 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 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 Bukhead 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	Accuracy/resolution	2°/0.1° for tilt < 20°
Maximum tilt Up or Down Automatic detect Pressure: Plezoresistive Range 3000 m Accuracy/precision	Tilt:	Liquid level
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 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 record 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 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 Deployment planning, instrument configuration,data retrieval and conversion (for Windows®) → Power DC input 9-15 V DC	Accuracy/resolution	0.2°/0.1°
Pressure: Plezoresistive Range 3000 m Accuracy/precision 0.5% FS / 0.005% of full scale → Analog inputs No. of channels 2 Supply voltage to analogoutput devices 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 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 tilt	30°
Accuracy/precision 0.5% FS / 0.005% of full scale → Analog inputs No. of channels 2 Supply voltage to analogoutput devices 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 Diagnostics 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	Up or Down	Automatic detect
Accuracy/precision -> Analog inputs No. of channels 2 Supply voltage to analogoutput devices Battery voltage/500 mA. 2) +5 V/250 mA. 3) +12 V/100 mA Voltage input -> Data recording Capacity 9 MB, can add 4/16 GB Data record 10 Bayes Wave record N/A Mode Stop when full (default) or wrap mode -> Real-time clock Accuracy ±1 min/year Backup in absence of power -> 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	Pressure:	Piezoresistive
No. of channels 2 Supply voltage to analogoutput devices Battery voltage/500 mA, 2) +5 V/250 mA, 3) +12 V/100 mA Voltage input O-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 Res-232 or RS-422 Communication 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	Range	3000 m
No. of channels 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 → Data communications I/O RS-232 or RS-422 Communication 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	Accuracy/precision	0.5% FS / 0.005% of full scale
Supply voltage to analogoutput devices 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 N/A Mode Stop when full (default) or wrap mode Real-time clock Accuracy ±1 min/year Backup in absence of power Data communications I/O Res-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 Power Functions Deployment planning, instrument configuration,data retrieval and conversion (for Windows®) Power DC input 9-15 V DC	→ Analog inputs	
devices 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 N/A Mode Stop when full (default) or wrap mode → Real-time clock Accuracy ±1 min/year Backup in absence of power → 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	No. of channels	2
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		
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 R5-232 or R5-422 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	Voltage input	0-5 V
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	Resolution	16-bit A/D
Data record Diagnostics record A0 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	→ Data recording	
Diagnostics record Wave record Mode Stop when full (default) or wrap mode Real-time clock Accuracy Backup in absence of power 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 PSoftware Functions Deployment planning, instrument configuration,data retrieval and conversion (for Windows®) Power DC input 9-15 V DC	Capacity	9 MB, can add 4/16 GB
Wave record N/A Mode Stop when full (default) or wrap mode → Real-time clock +1 min/year Accuracy ±1 min/year Backup in absence of power 4 weeks → Data communications	Data 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 300-115200 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	Diagnostics record	40 bytes
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	Wave record	N/A
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	Mode	Stop when full (default) or wrap mode
Backup in absence of power → 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	→ Real-time clock	
	Accuracy	±1 min/year
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	Backup in absence of power	4 weeks
Communication baud rate 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	→ Data communications	
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 MCBH-8-FS Bulkhead MCBH-8-FS Cable PMCIL-8-MP on 10 m polyurethane cable → Software Deployment planning, instrument configuration, data retrieval and conversion (for Windows®) → Power DC input DC input 9-15 V DC	I/O	RS-232 or 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	Communication baud rate	300-115200 Bd
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	Recorder download baud rate	600/1200 kBd for both RS-232 and RS-422
Bulkhead MCBH-8-FS Cable PMCIL-8-MP on 10 m polyurethane cable → Software Deployment planning, instrument configuration, data retrieval and conversion (for Windows®) → Power DC input DC input 9-15 V DC	User control	·
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	→ Connectors	
→ Software Functions Deployment planning, instrument configuration,data retrieval and conversion (for Windows®) → Power DC input 9-15 V DC	Bulkhead	MCBH-8-FS
Functions Deployment planning, instrument configuration,data retrieval and conversion (for Windows®) → Power DC input 9-15 V DC	Cable	PMCIL-8-MP on 10 m polyurethane cable
and conversion (for Windows®) → Power DC input 9-15 V DC	→ Software	
DC input 9-15 V DC	Functions	
•	→ Power	
Maximum peak current 3 A	DC input	9-15 V DC
	Maximum peak current	3 A

→ Power	
Avg. power consumption	0.015 W
Sleep current	< 100 μΑ
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	\sim 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