

Vector 4000 m -Legacy



This version of the Vector is no longer available.

Please see the Vector Generation 2.

This version of the Vector remains functional and supported. Please visit our <u>support center</u> if you require assistance.

Highlights

Applications

Technical specifications

Water velocity measurements		
Maximum profiling range	N/A	
Distance from probe	0.15 m	
Sampling volume diameter	15 mm	
Sampling volume height (user-selectable)	5-20 mm	
Cell size	N/A	
Velocity range	±0.01, 0.1, 0.3,1, 2, 4, 7 m/s (software-selectable)	
Adaptive ping interval	N/A	
Accuracy	$\pm 0.5\%$ of measured value ± 1 mm/s	
Velocity precision	typ. 1% of velocity range (at 16 Hz)	
Sampling rate (output)	1-64 Hz	
Internal sampling rate	100-250 Hz	

Distance measurement		
Minimum range	N/A	
Maximum range	N/A	
Cell size	N/A	
Accuracy	N/A	
Sampling rate	N/A	

Echo intensity		
Acoustic frequency	6 MHz	

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Echo intensity		
Resolution	0.45 dB	
Dynamic range	90 dB	
Sensors		
Temperature:	Thermistor embedded in end bell	
Temp. range	-4 to +40 °C	
Temp. accuracy/resolution	0.1 °C/0.01 °C	
Temp. time response	10 min	
Compass:	Magnetometer	
Accuracy/resolution	$2^{0}/0.1^{0}$ for tilt $< 20^{\circ}$	
Tilt:	Liquid level	
Accuracy/resolution	0.2°/0.1°	
Maximum tilt	30°	
Up or Down	Automatic detect	
Pressure:	Piezoresistive	
Range	0-4000 m	
Accuracy/precision	0.5% FS / Better than 0.005% of full scale	
Analog inputs		
No. of channels	2	
Supply voltage to analog output devices	Three options selectable through firmware commands: 1) Battery voltage/500 mA, 2) +5 V/250 mA, 3) +12 V/100 mA	
Data recording		
Capacity (standard):	16 GB	
Data record (Standard)	24 bytes at sampling rate + 28 bytes/second	
Data record (IMU)	72 bytes at sampling rate	
Real-time clock		
Accuracy	±1 min/year	
Backup in absence of power	4 weeks	
Data communications		
1/0	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 "Vector" software, ActiveX® function calls, or direct commands.	
Analog outputs	3 channels standard, one for each velocity component or two velocities and pressure.	
Output range	0–5 V, scaling is user-selectable.	
Synchronization	TTL (5 V tolerant) sync in/sync out, start on sync, sample on sync	
Connectors		
Bulkhead	MCBH-8-FS	

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Software	
Functions	Deployment planning, instrument configuration, data retrieval and conversion (for Windows®).
Multi unit operation	
Software	N/A
1/0	N/A
Power	
DC input	9-15 V DC
Maximum peak current	3 A
Max. consumption	1.5 W at 64 Hz
Typical consumption, 4 Hz	0.6 - 1 W
Sleep consumption	< 100 μΑ
Transmit power	2 adjustable levels
Batteries	
Battery capacity	50 Wh (alkaline or Li-ion),165 Wh (lithium), single or dual
New battery voltage	13.5 V DC (alkaline)
Data collection capacity	Refer to planning section in software
Environmental	
Operating temperature	-4 to +40 °C
Storage temperature	-20 to +60 °C
Vibration	IEC 60068-1/IEC60068-2-64
Depth rating	4000 m
Materials	
Standard model	Titanium housing. Titanium probe and fasteners
Dimensions	
Maximum diameter	84 mm
Maximum length	485 mm (housing only), 246 mm (fixed stem) add 110 mm for double battery
Weight	
Weight in air	8.3 kg
Weight in water	5.1 kg
Options	
Probe mounted on fixed stem or on	2 m cable
Vertical or horizontal probes	
Alkaline, lithium or Li-ion external ba	atteries

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IMU - Inertial Measurement Unit

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