01/02/2025







Sample 3D velocity at up to 200 Hz for use in hydraulic models and laboratory flumes

This instrument is no longer available.

Highlights

**Applications** 

## Technical specifications

→ Water velocity measurements		
Maximum profiling range	N/A	
Distance from probe	0.05 m, 0.1 m (field probe)	
Sampling volume diameter	6 mm	
Sampling volume height (user- selectable)	3-15 mm	
Cell size	N/A	
Velocity range*	±0.03, 0.1, 0.3, 1, 2.5, 4 m/s (software-selectable)	
Adaptive ping interval	N/A	
Accuracy	$\pm 0.5\%$ of measured value $\pm 1$ mm/s	
Velocity precision	N/A	
Sampling rate (output)	1-25 Hz (Std firmware),1-200 Hz (Plus firmware)	
Internal sampling rate	N/A	
* The velocity range is not the same in the horizontal and vertical direction. Please refer to the		

configuration software.

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Distance measurements	
Minimum range	N/A
Maximum range	N/A
Cell size	N/A
Accuracy	N/A
Sampling rate	N/A
$\rightarrow$ Echo intensity	
Acoustic frequency	10 MHz
Resolution	Linear scale
Dynamic range	25 dB
→ Sensors	
Temperature:	Thermistor embedded in probe
Temp. range	-4 to +32 °C
Temp. accuracy/resolution	1 °C/0.1 °C
Temp. time response	5 min
Compass:	N/A
Accuracy/resolution	N/A
Tilt:	N/A
Accuracy/resolution	N/A
Maximum tilt	N/A
Up or Down	N/A
Pressure:	N/A
Standard range	N/A

→ Sensors	
Accuracy/precision	N/A
$\rightarrow$ Analog inputs	
No. of channels	N/A
Supply voltage to analog output devices	N/A
→ Data recording	
Capacity (standard):	N/A
Data record	N/A
$\rightarrow$ Real-time clock	
Accuracy	N/A
Backup in absence of power	N/A
$\rightarrow$ Data communications	
I/O	RS-232
Communication baud rate	300-115 200 Bd
Recorder download baud rate	N/A
User control	Handled via "Vectrino" software, ActiveX $\ensuremath{\mathbb{B}}$ function calls, or direct commands
Analog outputs	3 channels standard, one for each velocity component
Output range	0–5 V, scaling is user-selectable0
Synchronization	RS-485, start on sync, sample on sync,transmit on sync (Plus Firmware)
→ Connectors	
Bulkhead	MCBH-12-FS, bronze
Cable	PMCIL-12-MP – see also options below
→ Software	
Functions	Deployment planning, instrument configuration, data retrieval and conversion (for Windows®)
$\rightarrow$ Multi unit operation	
Software	Polysync
I/O	RS 232-USB support for devices with 1, 2, 4, and 8 serial ports
→ Power	
DC input	12-48 V DC
Maximum peak current	2.5 A at 12 V DC (user-selectable)
Max. consumption	1.5 W at 200 Hz
Typical consumption, 4 Hz	N/A
Sleep consumption	N/A
Transmit power	N/A

→ Batteries		
Battery capacity	N/A	
New battery voltage	N/A	
Data collection capacity	N/A	
→ Environmental		
Operating temperature	-4 to +40 °C	
Storage temperature	-15 to +60 °C	
Vibration	IEC 60068-1/IEC60068-2-64	
Depth rating	20 m	
→ Materials		
Standard model	POM housing. Stainless steel (316) probe and fasteners	
→ Dimensions		
Maximum diameter	66 mm	
Maximum length	350 mm (housing only), 365 mm (fixed stem)	
→ Weight		
Weight in air	1.2 kg (1.3 kg with field probe)	
Weight in water	Neutral (0.1 kg with field probe)	
→ Options		
4-beam down-looking probe or side-looking probe. Fixed stem or 1 m flexible cable		
10, 20, 30 or 50 m cable with Impulse underwater connector		
RS 232–USB converter (one-to-one, four-to-one or eight-to-one)		
Standard or Vectrino Plus firmware		

Combined transportation and storage case