Teledyne RD Instruments

Workhorse Monitor

Direct Reading 1200, 600, 300 kHz ADCP

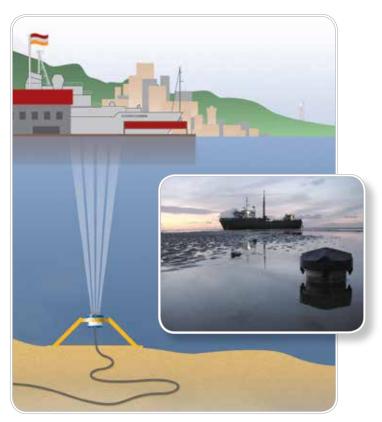
Real-Time Current Monitoring

The MONITOR is Teledyne RD Instruments' most popular directreading Acoustic Doppler Current Profiler (ADCP). The unit is typically bottom frame-mounted and hard-wired to shore to provide real-time monitoring of coastal currents.

The Monitor's high data accuracy and reliability make it a favorite for deployments in high-volume traffic areas such as ports and harbors, where the data is often integrated into a Vessel Traffic Monitoring System. In fact, the Monitor has been selected for most major port programs undertaken in the United States.

The Monitor offers a choice of three frequencies and ranges, to meet a wide array of data requirements. The unit also offers a flexible upgrade path, which includes an external battery pack, pressure sensor, bottom tracking capability for moving boat applications, and directional wave measurement.





PRODUCT FEATURES

- Extreme accuracy and reliability: The Monitor is ideally suited for the most demanding environments, including high traffic areas such as ports and harbors.
- Versatility: This direct reading unit can easily be upgraded to tackle a wide variety of coastal applications. Typical upgrades include pressure sensor, external battery pack, bottom tracking, and directional wave measurement—a single instrument can do it all!
- **Precision data:** Teledyne RDI's Broadband signal processing delivers very low-noise data, resulting in unparalleled data resolution and minimal power consumption.
- A four-beam solution: Teledyne RDI's 4-beam design improves data reliability by providing a redundant data source in the case of a blocked or damaged beam; improves data quality by delivering an independent measure known as error velocity; and improves data accuracy by reducing variance in your data.



A Teledyne Marine Company

Workhorse Monitor Direct Reading 1200, 600, 300 kHz ADCP



TECHNICAL SPECIFICATIONS

Water Profiling	Depth Cell Size ¹ Typical Range ² 12 1200kHz		ge² 12m	m Typical Range ² 50m 600kHz		Typical Range ² 110m 300kHz		
	Vertical Resolution 0.25m 0.5m	Range ³ 11–15m 12–16m	Std. Dev.⁴ 12.9cm/s 6.1cm/s	Range³ 38-52m	Std. Dev.⁴ 12.9cm/s	Range ³ see note ¹	Std. Dev. ⁴	
	1m	12-10m 14-17m	3.0cm/s	42-56m	6.1cm/s	83-117m	12.8cm/s	
	2m	15–19m ²	2.0cm/s	46-61m	3.0cm/s	93-128m	6.1cm/s	
	4m	see note ¹	2.001195	52-67m ²	2.0cm/s	104-141m	3.0cm/s	
	8m	See note		52 0711	2.00111/3	116-154m ²	•	
Long Range Mode	2m	24m	3.8m/s					
	4m			70m	4.2cm/s			
	8m					165m	4.2cm/s	
Profile Parameters	Velocity Accuracy	0.3% of water velocity relative to ADCP ±0.3cm/s		0.3% of water velocity relative to ADCP ±0.3cm/s		0.5% of water velocity relative to ADCP ±0.5cm/s		
	Velocity resolution	0.1cm/s		0.1cm/s		0.1cm/s		
	Velocity range		ult, ±20m/s max	±5m/s default, ±20m/s max		±5m/s default, ±20m/s max		
	Number of depth cells	1-128		1-128		1-128		
	Ping rate	2Hz (typical)		2Hz (typical)		2Hz (typical)		
Echo Intensity Profile	Vertical resolution			Depth cell size, user configurable				
	Dynamic range		80dB					
	Precision		±1.5dB					
Transducer and Hardware	Beam angle		20°					
	Configuration	,	4-beam, convex					
	Internal memory		Two PCMCIA card slots; no memory card included Serial port selectable by switch for RS-232 or RS-422. ASCII					
	Communications			selectable by sv utput at 1200-1		S-422. ASCII		
Environmental	Standard depth rating		200m; opt	ional to 500m, 1	.000m, 6000m			
	Operating temperature		-5° to 45°C					
	Storage temperature (witho		-30° to 60°C					
	Weight in air	7.6kg	5					
	Weight in water 3.0kg							
Software	TRDI's Windows [™] -based software included: WinSC −Data Acquisition System; WinADCP −Data Display and Export; Velocity							
Power	Input Power		20-50VDC	20-50VDC				
Standard Sensors	Temperatures (mounted on t		Range -5° to 45°C, Precision ±0.4°C, Resolution 0.01° Range ±15°, Accuracy ±0.5°, Precision ±0.5°, Resolution 0.01°					
	Tilt		Range ±15	°, Accuracy ±0.5	°, Precision ±0.5°, Res	solution 0.01°		
	Compass (fluxgate type, inclu built-in field calibration featur	Accuracy +	Accuracy ±2° ⁵ , Precision ±0.5° ⁵ , Resolution 0.01°, Maximum tilt ±15°					
		,						
Available Options	 Memory: 2 PCMCIA slots; Bottom tracking • AC/DC 			,	5	1 5	aes	
		DOWEI COIIVEILEI	+ovDC Oulpul • C	DIIVEISIOII KIL IOI	internat power supp	ty and memory		
Dimensions	Directional Waves Array 228.0mm wide x 201.5.0mm		· ·					

1 User's choice of depth cell size is not limited to the typical values specified.

2 Longer ranges available.

3 Profiling range based on temperature values at 5°C and 20°C, salinity = 35ppt.

4 BroadBand mode single-ping standard deviation (Std. Dev.).

5 <±1.0° is commonly achieved after calibration.



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