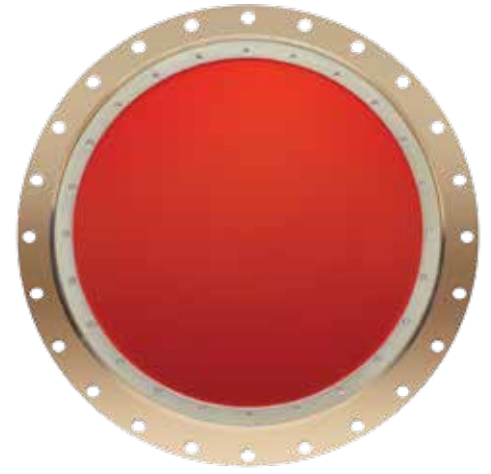


Teledyne RD Instruments

Ocean Observer

Long-Range Stationary Platform ADCP

Remotely Monitor Ocean Currents Throughout the Water Column



Teledyne RD Instruments dominates ocean current measurement for the offshore oil and gas sector with a field-proven instrument designed to facilitate exploration drilling, field development, and production.

Teledyne RDI's Acoustic Doppler Current Profilers (ADCPs) and software have been chosen by the majority of offshore operators worldwide to support their exploration drilling programs. Ocean current data is used for station-holding, riser deployment and monitoring, ROV operations, and marine operations. The data is gathered and displayed in real time to enable crucial operational decision-making. The highly versatile OCEAN OBSERVER allows users to select between Teledyne RDI's high-resolution and long-range settings, providing optimal data for every application.



Frequency	Range (m)	Cell Size (m)
38kHz	>1000	24
75kHz	700	16
150kHz	400	8

PRODUCT FEATURES

- **Extreme depth:** The Ocean Observer provides the deepest current profiling available to assist in offshore production and rig safety.
- **Comprehensive data:** The Ocean Observer provides two forms of signal processing - Broadband for high precision and Narrowband for extended range.
- **Noise-tolerant:** Our field-proven technology is capable of operating in the high-noise environment of oil platform production.
- **Field-proven:** The Ocean Observer has been utilized with confidence by all major oil companies on every type of offshore platform.
- **Compact:** Our patented phased array transducer provides extended range in a powerful yet compact package.



Ocean Observer

Stationary Platform ADCP



TECHNICAL SPECIFICATIONS

Water Profiling	Long Range Mode	38kHz	75kHz	150kHz	
	Vertical resolution cell size ¹	Max Range ²	Precision ³	Max Range ²	Precision ³
	4			350m	30cm/s
	8		650m	400m	16cm/s
	16	>1000m	30cm/s		
	24	>1000m	20cm/s		
High Precision Mode	38kHz	75kHz	150kHz		
	Vertical resolution cell size ¹	Max Range ²	Precision ³	Max Range ²	Precision ³
	4			250m	15cm/s
	8		430m	275m	8cm/s
	16	730m	15cm/s		
	24	780m	10cm/s		
Profile Parameters	Velocity accuracy (typical)	±1.0% ± 0.5cm/s	±1.0% ± 0.5cm/s	±1.0% ± 0.5cm/s	
	Velocity range	±7m/s	±7m/s	±7m/s	
	Number of depth cells	1-128	1-128	1-128	
	Maximum ping rate	0.4kHz	0.7kHz	1.5kHz	
Bottom Track	Max altitude (precision <2cm/s)	1700m	950m	600m	
	Range Accuracy = <±2% actual range ⁴				
Echo Intensity Profile	Vertical resolution	Depth cell size, user configurable			
	Dynamic range	80dB			
	Precision	±1.5dB			
Transducer and Hardware	Beam angle	30°			
	Configuration	4-beam, phased array			
	Communications	RS-232 or RS-422 at 1200-115,200 baud Hex-ASCII or binary			
System Power	AC input	90-250VAC, 47-63Hz			
	Power	1400W			
Software	Use TRDI's Windows™-based software for best results: VMDAS — Vessel-Mount Data Acquisition System; WinADCP —Data Display and Export, Velocity				
Environmental	Operating temperature	-5° to 45°C			
	Storage temperature	-30° to 60°C			
	Standard depth rating	100m			
Standard Sensors	Temperatures (mounted on transducer)	Range -5° to 45°C, Precision ±0.1°C, Resolution 0.03°			
	Tilt	Range ±50°, Accuracy ±1.0°, Precision ±0.1°, Resolution 0.1°			
	Compass (fluxgate type)	Accuracy ±5° ⁵ , Precision ±0.3°, Resolution 0.01°, Maximum tilt ±50°			
System Components	<ul style="list-style-type: none"> • 38, 75, or 150kHz transducer • 19-inch rack-mount electronic chassis • 100m-long transducer underwater cable User may supply external compass input or GPS navigation data and NMEA tilt information				
Dimensions	38kHz: 914.4mm dia.; 75kHz: 480mm dia.; 150kHz: 305mm dia.; Underwater Electronics Assembly: 976.6mm long <i>(line drawings available upon request)</i>				

1 User's choice of depth cell size is not limited to the typical values specified.
 2 Ranges are typical and vary with situation.
 3 Single-ping standard deviation.
 4 Excludes errors introduced by changes in speed of sound profile, by tilting of transducer, and by slope of bottom.
 5 Up to ±20° tilt.

Specifications subject to change without notice.

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