

# Sentinel V

Self-Contained 20m, 50m, 100m Profiling ADCP



## TECHNICAL SPECIFICATIONS

Depth Cell Size <sup>1</sup>	V20 (1000kHz)		V50 (500kHz)		V100 (300kHz)	
	Range (m) <sup>2,3</sup> Wide/Narrow	Std Dev (cm/s) <sup>3,4</sup> Wide/Narrow	Range (m) <sup>2,3</sup> Wide/Narrow	Std Dev (cm/s) <sup>3,4</sup> Wide/Narrow	Range (m) <sup>2,3</sup> Wide/Narrow	Std Dev (cm/s) <sup>3,4</sup> Wide/Narrow
0.25m	18.0/22.6	19.2/36.5				
0.3m	19.3/24.0	11.1/20.8				
0.5m	20.2/24.9	7.1/13.4	44.1/57.6	19.2/36.5		
1.0m	22.1/26.9	3.6/6.7	50.5/64.6	7.1/13.5	94.5/120.6	10.9/20.6
2.0m	24.5/29.4	1.7/3.2	56.0/70.6	3.6/6.7	103.5/130.4	5.5/10.3
4.0m	26.9/32.0	0.8/1.6	63.1/78.2	1.7/3.2	114.6/142.3	2.7/5.2
6.0m			67.4/82.8	1.1/2.1	121.7/151.5	1.8/3.3
<b>Communications and Recording</b>	Wireless Internal memory		802.11b/g/n One 16GB Micro SD Card included			
<b>Profile Parameters</b>	Velocity accuracy Velocity resolution Velocity range Ping rate		V20/V50: 0.3% of the water velocity relative to the ADCP ±0.3cm/s V100: 0.5% of the water velocity relative to the ADCP ±0.5cm/s 0.1cm/s ±5m/s (default); ±20m/s (maximum) Up to 4Hz			
<b>Echo Intensity Profile</b>	Vertical resolution Dynamic range Precision		Depth cell size 80dB ±1.5dB			
<b>Transducer and Hardware</b>	Beam angle Configuration Depth rating Materials		25° 4-beam, convex; 5th beam vertical 200m Transducer, housing, and end cap: plastic Connector: metal shell			
<b>Standard Sensors</b>	Temperature (mounted on transducer) Compass (magneto-inductive sensor) Tilt (MEMS accelerometers) Pressure sensor (mounted on transducer)		Range -5° to 45°C, precision ±0.4°C, resolution 0.1° Accuracy 2° RMS, resolution 0.1°, max. dip angle 85° Pitch range ±90°, roll range ±180°, accuracy 2° RMS, precision 0.05° RMS, resolution 0.1° Range 300m, accuracy 0.1%FS			
<b>Power</b>	External DC input Internal battery voltage Battery capacity; over-the-counter @0°C Battery pack @5°C		12–20VDC 18VDC new 100 watt hours (typical) 510 watt hours			
<b>Software</b>	Teledyne RDI's new software included		ReadyV—Pre-deployment (testing, planning, and data recovery) <sup>5</sup> Velocity—Post-processing (data handling, display, and export) <sup>6</sup>			
<b>Environmental</b>	Standard depth rating Operating temperature Storage temperature (without batteries) Weight in air Weight in water		200m -5° to 45°C -30° to 60°C 7.5kg – 16.0kg 1.6kg – 6.0kg			
<b>Available Options</b>	External battery case • AC/DC power converter • 5th beam (at time of order only) • Waves processing • Straight or right-angle metal shell connector					
<b>Dimensions</b>	Special configuration drawing available upon request					

1 User's choice of depth cell not limited to the typical values specified.  
 2 Ranges specified are typical at temperature of 5°C and salinity of 35psu; longer ranges are possible.  
 3 User selects the bandwidth mode; wide = 25% or narrow = 6%.  
 4 Standard deviations (Std Dev) are typical values for single ping data.  
 5 Resident in ADCP accessed via a web browser.  
 6 Windows™ based software program.

Specifications subject to change without notice.  
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