

Workhorse Rio Grande

Versatile River Discharge Measurement System



TECHNICAL SPECIFICATIONS

		WHR600 600kHz	WHR1200 1200kHz
Water Velocity Profiling	Profiling range	0.7m ¹ to 75m ²	0.3m ¹ to 25m ²
	Velocity range ±5m/s default, ±20m/s maximum	
	Accuracy ±0.25% of water velocity relative to ADCP, ±2mm/s	
	Resolution	1mm/s	1mm/s
	Number of cells	1-128	1-128
	Cell size	0.1m to 4m	0.05m to 2m
	Blanking distance	0.25m	0.05m
	Data output rate	1-2Hz (typical)	1-2Hz (typical)
Bottom Tracking	Velocity range	±9.5m/s	±9.5m/s
	Depth range	0.8m to 90m ²	0.5m to 30m ²
	Accuracy ±0.25% of bottom velocity relative to ADCP, ±2mm/s	
	Resolution	1mm/s	1mm/s
Depth Measurement	Range	0.8m to 90m ²	0.5m to 30m ²
	Accuracy	±1% ³ ±1cm	±1% ^c ±1cm
	Resolution	1mm/s ⁴	1mm/s ⁴
Standard Sensors	Temperature	-5°C to 40°C	
	Tilt (pitch and roll)	±15°	Compass
	Range	±0.4°C	0-360°
	Accuracy	0.01°C	±2°
Operation Modes	Resolution	0.01°C	0.01°
	Standard profiling mode (Broadband)	Mode 1	
	High precision profiling mode (included)	Mode 5 and Mode 11	
	High ping profiling mode (optional)	Mode 12	
Shallow water bottom tracking mode (optional)	Bottom tracking Mode 7		
Transducer and Hardware	Configuration	Janus four beams at 20° beam angle	
	Internal memory	Optional flash PC card up to 2GB	
Software⁵	<ul style="list-style-type: none"> • WinRiver II (standard) for moving-boat measurement • SxS Pro (optional) for stationary measurement; comes with an uncertainty model for in situ quality evaluation and control 		
Communications	Serial (standard)	RS-232, 1200 to 115,200 baud rate	
	Radio modem (optional)	Range >30km (line of sight)	
Integration	With GPS, depth sounder, or external gyrocompass: available through RS232 to PC with WinRiver II software		
Power	Input voltage	10.5-18V DC	
	Power consumption	1.5W typical	
Float (optional)	Configuration	Three hulls (trimaran)	
	Material	Polyethylene	
	Dimensions	Length 120cm, width 80cm, height 18cm	
	Weight	10kg bare; 17kg with instrument and battery	
Environmental	Operating temperature	-5°C to 45°C	
	Storage temperature	-20°C to 50°C	

1 Assume one good cell (minimum cell size) with high-precision profiling mode; range measured from transducer surface.
 2 Assume fresh water; actual range depends on temperature and suspended solids concentration.
 3 Assume uniform water temperature and salinity profile.
 4 For averaged depth data.
 5 For system setup, data acquisition, discharge calculation, data display, and summary report

Specifications subject to change without notice.
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