

1171-Series Scanning Sonar

High Resolution, Multi-frequency Wide/Narrow Fan Transducer Imaging Head

(SEACON 4-pin, RMG/XSG Series Connector configuration)



KONGSBERG

P/N 975-23880000

This version of the 1171-series sonar head has been specifically designed to produce the highest resolution, scanning sonar images possible with 1 MHz. Its design is targeted at bottom clearance, body recovery, underwater construction support, pipeline and cable surveys, and applications where data clarity supersedes any other requirement. The exposed transducer design is ideal for all water temperatures, and the beam pattern is not affected by thermal defocusing. The internal compass module also contains pitch and roll sensors, and the data is displayed on the sonar image, and is time-tag recorded with the sonar data. This head is operated using the MS 1000 software.

Operating Frequency: (presets)	500 kHz	600 kHz	675 kHz	900 kHz	1 MHz	1.2 MHz
Wide Beam Width: (nom)		45° x 1.0°	38° x 0.9°	30° x 0.6°	25° x 0.6°	28° x 0.6°
Narrow Beam Width (nom)	26° x 1.2°	32° x 1.1°	30° x 1.0°	22° x 0.8°	20° x 0.7°	
Range: (typical with LFM)	150 m +	150 m	100 m	75 m	40 m	25 m
Range Resolution:	≥ 7.5mm @10μs pulse length @ 1500m/s speed of sound					
Range Sampling:	≥1mm					
Scan Speed:	nom 8 sec/360° @ 10 m and 1.8° step size (@ 460 kbits/sec.) nom 18 sec/360° @ 50m and 1.8° step size (@ 460 kbits/sec.)					
Scan Angle:	360° continuous and user-sectored					
Step Size:	0.225° (minimum) - 7.2° (user-selectable)					
Transmit Pulse Widths:	0 to 2500μs (manual or auto-selected for optimized operation)					
Receive Bandwidth:	200kHz max. (auto selected to suit pulse length & sample rate)					
Telemetry :	RS485 or RS232 asynchronous serial data					
Telemetry configurations:	Fixed		Downlink: 9600 bps to 460 kbps (user selected for compatibility with other serial communication equipment) Uplink: same speed as downlink			
	Optimized		Downlink: 9600 bps to 460 kbps (auto set to highest rate allowed by the quality of the telemetry link) Uplink: same speed as downlink			
Power Requirement:	22-60 VDC, 28W					
Temperature Range:	-10 to +40°C operating -30 to +40°C storage					
Operating Depth:	3000 m					
Weight in Air:	14.0 lb/6.3 kg (estimated)					
Weight in Water:	6.6 lb/3.0 kg (estimated)					
Connector:	Seacon 4-pin, RMG/XSG Series Connector					
Materials	Aluminum 6061-T6, 300-Series SS					
Options:	-7801 Built-in Security Key					

