Multi-Frequency Profiling Sonar Head



P/N 975-21160000

The 1171 Series of Sonar Heads have been developed to meet the requirements for deep ocean applications. The new sonar heads have reduced size and weight while providing the high level of data quality characteristic for all Kongsberg Mesotech sonars. The Multi-Frequency design allows optimizing the profiling configuration for different applications. The transducer is protected within an oil-filled, pressure compensating dome. The telemetry is RS485 and RS232 compatible and is automatically sensed and configured at start up to match the telemetry link used. The sonar head operation is configured and controlled using the MS1000 Software Processor.

Operating Frequency: User selectable from 675 kHz to 1350 kHz

Beam Width: 1.9° Cone (@675kHz) to 1.0° Cone (@1350kHz)

Range: 0.5 - 75 m typical (@675kHz)

Range Resolution: ≥ 0.5 cm (determined by transmit pulse width and receive bandwidth settings)
Range Sample Count: 238, 476, 952, 1904 (Low Resolution, High Resolution, Zoomx1, Zoomx2)

Sampling Resolution: ≥ 0.5 mm (function of range selection)

Scan Speed: typical 3.7 sec/360° @ 5 m and 1.8° step size

nominal 34 sec/360° @ 100 m and 1.8° step size

Scan Angle: 360° continuous (user adjustable for limited sector scans)

Step Size: 0.45° - 7.2 (user selectable)

Transmit Pulse Widths: 5µs to 1000µs (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: Legacy mode Downlink: 9600 bps fixed

Uplink: 9600 bps to 460 kbps (auto set to highest rate allowed by

the quality of the telemetry link)

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: 22-26 VDC @ \leq 0.8A Temperature Range: -10 to +40°C operating -30 to +40°C storage

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Operating Depth: 4000 m

Connector: Seacon RMG-4-BCL; optional connectors based on customer request

Materials: Alum 6061-T6, 300 Series S.S., Urethane Finish: Anodize, Black/Gold MIL-A-8625 type II Dimensions: Diameter: 4.2in/107mm

Length: 11.4in/290mm (excluding connector)

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Weight In Air: 7.7lb/3.5kg In Seawater: 3.3lb/1.5kg

