Dual Transducer Imaging Sonar Head



P/N 975-21030000

KONGSBERG

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 dual transducer design allows optimized operational configuration for both long range obstacle avoidance and shorter range imaging detail. 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: Transducer 1: 300 kHz to 400 kHz Transducer 2: 450 kHz to 700kHz Beam Width (@3dB): 2.7° x 30° Fan (@330kHz) 1.4° x 40° Fan (@675kHz) Maximum Range: 300 m typical (@330kHz) 100 m typical (@675kHz)

Range Resolution: ≥ 2.0 cm ≥ 0.5 cm

Transmit Pulse Widths: 25μs to 1000μs (auto selected) 5μs to 1000μs (auto selected) Receive Bandwidth: 50kHz max. (auto selected) 200kHz max. (auto selected)

Range Sample Count: 238, 476, 952, 1904 (Low Resolution, High Resolution, Zoomx1, Zoomx2)

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

Scan Speed: nom 5 sec/360° @ 10 m and 1.8° step size (@ 460 kbits/sec.)

nom 34 sec/360° @ 100 m and 1.8° step size (@ 460 kbits/sec.)

Scan Angle: 360° continuous

Step Size: 0.45° - 7.2 user selectable

Telemetry: RS485 or RS232 asynchronous serial data

Telemetry configurations: Downlink: 9600 bps fixed Legacy mode

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

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

> the quality of the telemetry link) Uplink: same speed as downlink

Power Requirement: 22-26 VDC @ < 0.8A

Temperature Range: -10 to +40°C operating -30 to +40°C storage

Operating Depth: 4000 m max.

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: 5.1in/130mm

> Length: 11.5in/292mm (excluding connector)

Weight In Air: 9.0lb/4.1kg

> In Seawater: 3.9lb/1.8kg

Options: -7801 Built-in Security Key

> Specifications subject to change without notice P/N 975-21037901 Iss 1.3

