1171-Series Scanning Sonar 650 m Multi-frequency Mini Sonar Head

(Subconn MCBHRA4M Series Connector configuration)



P/N 975-27110000

This 1171 Sonar Head is designed for applications where size and weight are critical performance criteria. A unique drive and sensor section design, together with improved hardware and software, has resulted in lower current draw and improved angle/range resolution. The design also provides extended operating frequencies and enhanced coverage at longer ranges when using the LFM CHIRP capability.

The sonar head is compatible is RS485 and RS232 compatible and is automatically sensed and configured at start up to match the telemetry link. The sonar head operation is configured and controlled using the MS1000 Software Processor.

Operating Frequency: Tunable or user selectable presets : 625 kHz, 675 kHz, 750 kHz, 800 kHz

Beam Width: 1.7° x 20° Fan (nominal) @ 675kHz, 1.4° x 15° Fan (nominal) @ 800 kHz

Range: 0.5 - 100 m typical (@ 675 kHz)

0.5 - 75 m typical (@ 800 kHz)

NOTE: Extended ranges are achievable using the LFM Chirp capability.

Range Resolution: \geq 0.5 cm (determined by transmit pulse width and receive bandwidth settings)

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

Scan Speed: nominal 28 sec/360° @ 10 m and 0.45° step size (CW mode, 460 kbps)

nominal 70 sec/360° @ 50 m and 0.45° step size (CW mode, 460 kbps)

Scan Angle: 360° continuous (software controlled)

Step Size: 0.45° - 7.2 (user selectable)

Transmit Pulse Widths: 5 μs to 1000 μs (auto selected for optimized operation)

Receive Bandwidth: 200 kHz max. (auto selected to suit pulse length & sample rate)

Telemetry: RS485 or RS232 asynchronous serial data

Telemetry Rates: Downlink: 9600 bps to 460 bps (Uplink: same speed as downlink)

Telemetry configurations Fixed Downlink: 9600 bps to 460 kbps (user selected for compatibility with

other serial communication equipment)

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

the quality of the telemetry link)

Power Requirement: 22-26 VDC @ \leq 0.6 A Temperature Range: -10 to +40°C operating -30 to +40°C storage

Operating Depth: 650 m

Connector: Subconn MCBHRA4M

Materials: Alum 6061-T6, 300 Series S.S., Urethane

Finish: Anodize, Black MIL-A-8625 type II
Dimensions: Diameter: 3.0 in/76 mm

Length: 9.05 in/230 mm (excluding connector)

Weight In Air: 4.1 lb/1.9 kg

In Seawater: 2.0 lb/0.9 kg

