



KONGSBERG

4000 m Multi-Frequency Imaging Sonar Head with Composite Transducer & Acoustic Lens and Ethernet Telemetry

P/N 975-21200000

The 4000 m 1171 series of sonar heads has been optimized to meet the requirements of deep-ocean applications. These sonar heads provide the highest level of image quality. The wide-band composite transducer is protected within an oil-filled, pressure-compensating dome. The transducer features a patented¹ salt water-filled acoustic lens that maintains beam focus throughout the entire temperature and depth operating range. The telemetry is compatible with Ethernet 10Base-T or 100 Base-TX and is automatically sensed and configured at startup. The sonar head is configured and controlled using the MS1000 Software.

Frequency Range:	Tunable in 5 kHz steps from 300 – 600 kHz ² and 605 - 1200 kHz in both CW and LFM modes
Preset Frequencies:	330 kHz 450 kHz 600 kHz 675 kHz 800 kHz 900 kHz 1000 kHz 1100 kHz
Beam Widths:	2.7° x 26° 2.2° x 19° 1.6° x 16° 1.4° x 36° 1.2° x 31° 1.0° x 25° 0.9° x 22° 0.8° x 20°
Maximum Ranges:	300 m @ 330 kHz, 100 m @ 675 kHz, 50 m @1000 kHz
Minimum Range:	0.5 m
Range Resolution:	≥ 3.75 mm (variable, determined by transmit-pulse width)
Range Sample Options:	238, 476, 952, 1904 (Low Resolution, High Resolution, Zoomx2, Zoomx4)
Sampling Resolution:	0.26 mm (0.5 m range @ 1904 samples), 21 mm (10 m range @ 476 samples)
Scan Speed:	Typical: 3.7 sec/360° @ 5 m and 1.8° step size (@ 460 kbps) Nominal: 34 sec/360° @ 100 m and 1.8° step size (@ 460 kbps)
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:	Based on 'Wide' setting: 493 kHz (0.5 m range), 109 kHz (10 m range)
Telemetry :	Ethernet 10Base-T or 100Base-TX (Auto-Sensing)
Power Requirement:	22 - 26 VDC @ ≤ 0.8A
Temperature Range:	-10° to +40°C operating, -30° to +40°C storage
Operating Depth:	4000 m
Connector:	Seanet 101-5260 Penetrator
Materials:	Aluminum 6061-T6, 300-Series S.S., Urethane
Finish:	Anodized, Black/Blue MIL-A-8625 type II
Dimensions:	Diameter: 5.1 in/130 mm Length: 12.26 in/311 mm (excluding connector)
Weight	In Air: 9.5 lb/4.3 kg In Seawater: 4.2 lb/1.9 kg

¹ US Patent 8,879,360 B2

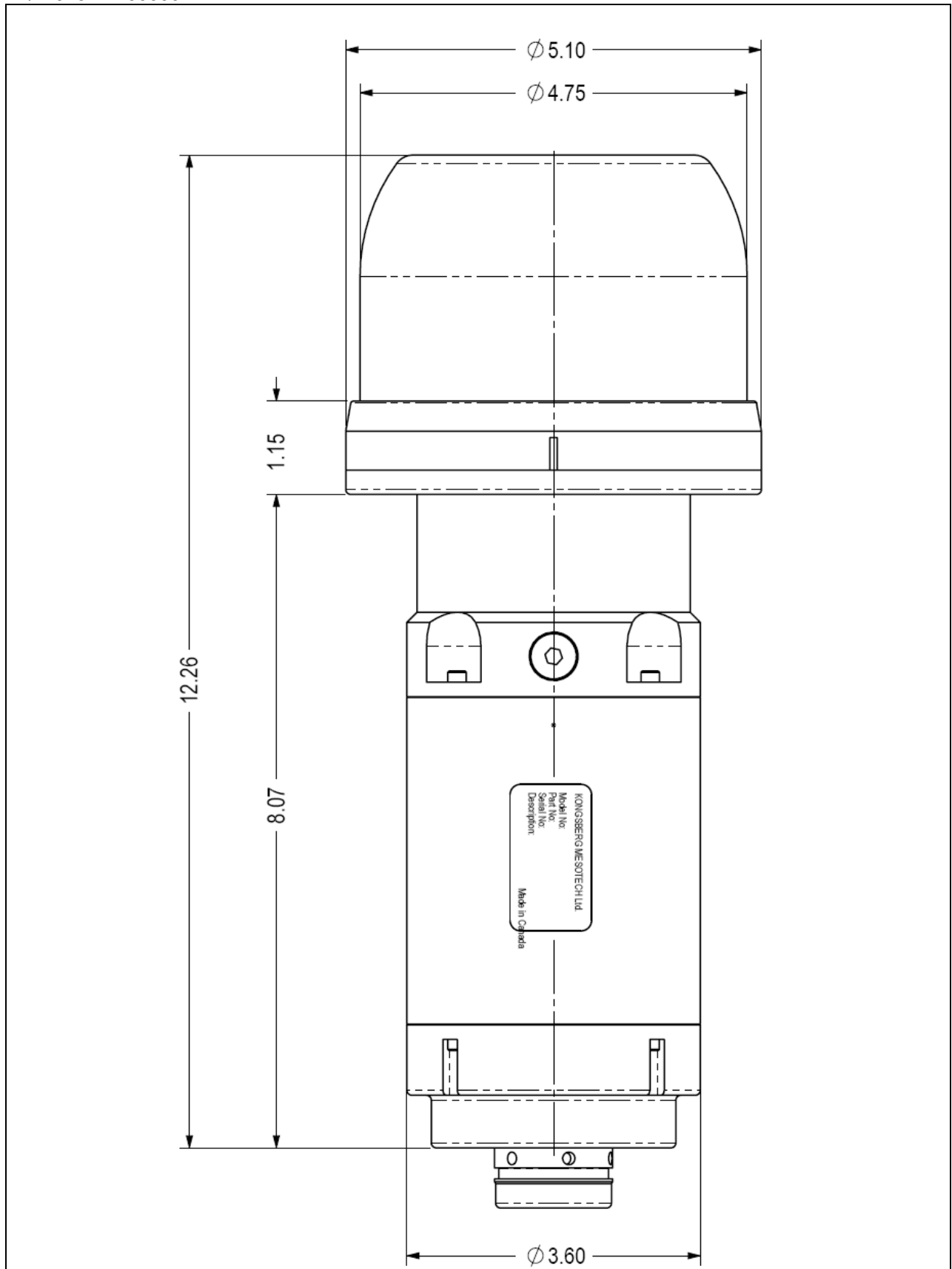
² Excluding 570 – 580 kHz, which is blocked from use.

Specifications subject to change without notice

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