

M3 Series

MultiMode Multibeam Sonar



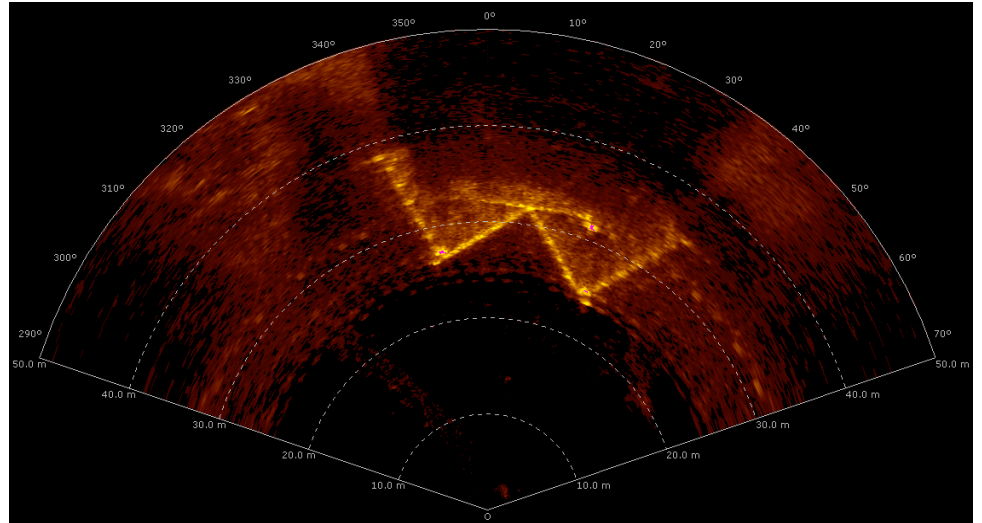
KONGSBERG

M3 Sonar - 4000m Depth

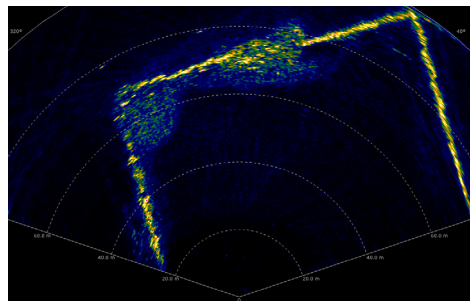
Description

The Kongsberg Mesotech Ltd. M3 Sonar™ is a compact, versatile multibeam sonar. The M3 Sonar provides high-resolution and easy to interpret images. Detection of small objects out to 150 meters, combined with a 120° to 140° field of view, permits the operator to see the full underwater picture in real time.

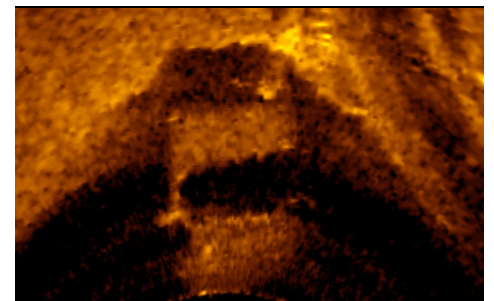
- Combines the high refresh rate of a conventional multibeam with the image quality comparable to a singlebeam sonar.
- Provides wide-angle, full-range situational awareness with concurrent true zoom ultra-short-range imaging with dynamic focusing.
- Allows variable vertical beamwidth for optimized obstacle avoidance.
- Provides exceptional range performance using high energy CHIRP pulses.



Cooling intakes for a power station using eIQ Mode



Pier corner at 100m



Abandoned Car

Versatile

The M3 Sonar software employs a new user interface with simplified controls by selecting a Sonar App that optimizes the sonar parameters for the application. The M3 Sonar delivers a uniform wide-coverage area for navigation and obstacle avoidance with a 120° to 140° field of view (horizontal) and a range of 150 meters. The vertical beamwidth is also variable from 3° to 30°.

Applications

- ROV Navigation
- Inspection
- Intervention
- Monitoring
- Underwater Recovery

Installation

The compact and light-weight M3 Sonar fits on a wide range of vehicles from large Work-class ROVs to small Observation-class ROVs.

The Ethernet telemetry interface is easy to integrate using commercially available network technology.

Benefits

- Uniform large coverage area
- Compact and light weight
- Low power
- Real time imaging
- MultiMode capability
- Easy to use
- System health monitor

Features

- 0.2 - 150 meter range with wide band CHIRP for cm range resolution
- Unique Enhanced Image Quality™ (eIQ) mode (patent pending) with 0.95° angular resolution, 140° field of view and 30° vertical beamwidth
- Variable Vertical Beamwidth mode with 1.6° angular resolution, 120° field of view and 3° to 30° vertical beamwidth
- Multiple true zoom windows
- Compact and light weight
- 10/100/1000 Mbps Ethernet telemetry
- 4000 m depth rating
- All-new simplified software user interface

Technical specifications

P/N 922-20020000

Sonar Specifications

- Range: 0.2 to 150 m
- Range Resolution: 1 cm
- Frequency: 500 kHz
- Pulse Types: CW, CHIRP
- Modes: Variable Vertical Beamwidth, eIQ

Variable Vertical Beamwidth Mode

- Horizontal Field of View: 120°
- Vertical Beamwidth: 3°, 7°, 15°, 30°
- Angular Resolution: 1.6°
- Update rate: up to 40 Hz

eIQ Imaging Mode

- Horizontal Field of View: 140°
- Vertical Beamwidth: 30°
- Angular Resolution: 0.95°
- Update rate: up to 10 Hz

Interface Specifications

- Communication: Ethernet
- Data Rates: 10/100/1000 Mbps
- Input Voltage: 11 to 36 VDC
- Input Power: 22 W (Typical)
- O/S: Windows 7 Professional SP1 or Windows XP Professional SP3

Environmental

Temperature

- Operation: -2°C to +38°C
- Storage: -40°C to +55°C

Shock and Vibration

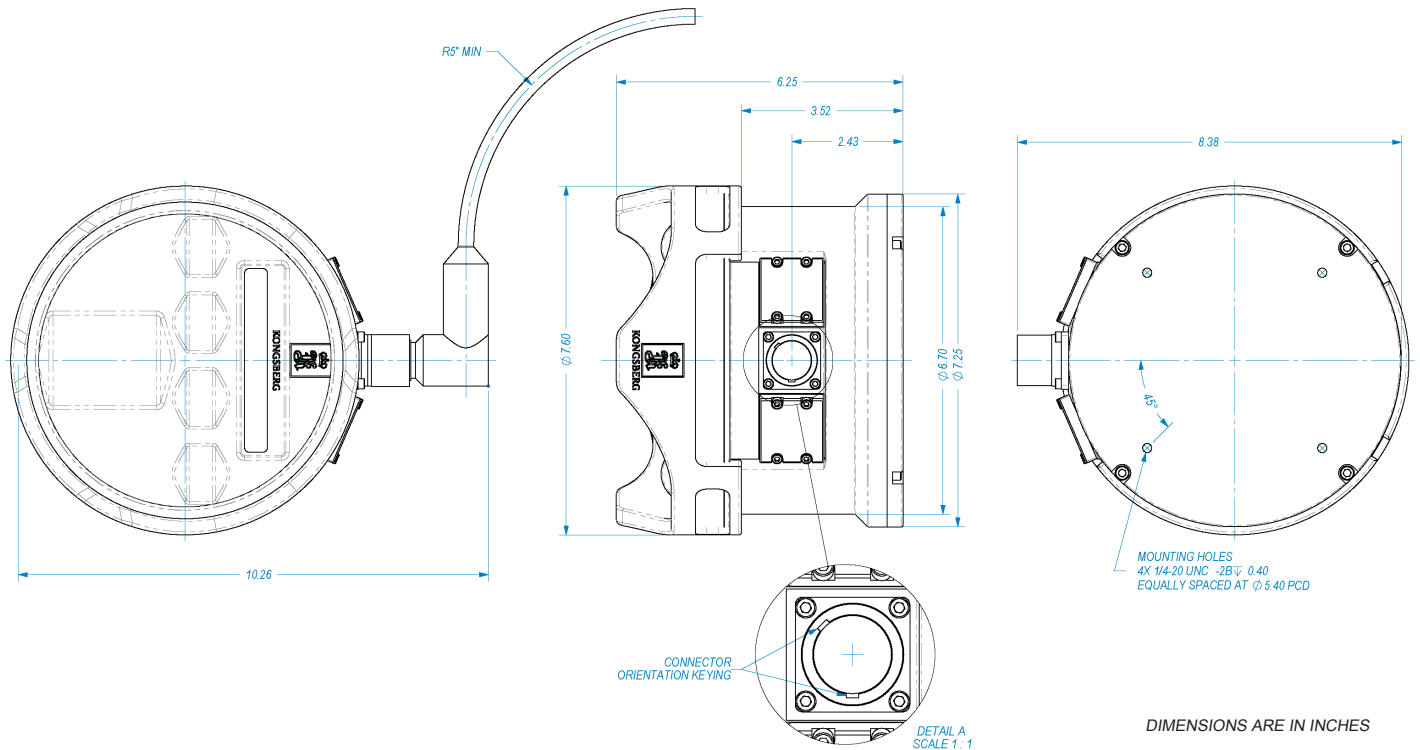
- Shock Qualified: +/-50gs, 3 Axes, 6 shocks per axis
- Vibration Qualified: 4g, 30Hz, 3 axes, 2 hours per axis. No resonance below 800Hz..

Mechanical Specifications

- Dimensions: (see below)
- Weight in air: 8.4 kg
- Weight in water: 5.2 kg
- Depth Rating: 4000 m
- Connector Type: SEA CON®
- Connector Model: MINK-10-FCRL

Materials

- Titanium
- Stainless Steel 316
- Elastomeric Polyurethane



Due to the continuous development of its products, Kongsberg Mesotech Ltd. reserves the right to alter the specifications shown above without notice. Please contact the manufacturer for information on any updated specifications.

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