

# M3 SONAR® - 500 M



KONGSBERG

P/N 922-20010000

## FEATURES

- Up to 500 m water depth
- Imaging and profiling capabilities
- GeoTIFF output for image mosaics
- Multiple true-zoom windows
- CHIRP and Doppler modes of operation
- User-friendly interface
- Significant time savings
- Integrated tilt and pan/tilt control

Receive Transducer

eIQ Transmit Transducers

Imaging/Profiling Transducer



## MULTIMODE MULTIBEAM FOR MULTIPLE APPLICATIONS

Kongsberg Mesotech's M3 Sonar is a multibeam system with both imaging and profiling capabilities. The M3 Sonar provides high-resolution and easy-to-interpret images by combining the rapid refresh rate of a conventional multibeam sonar with image quality comparable to a single-beam sonar.

Detection of small objects out to 150 meters combined with a 120° to 140° field of view allows the operator to see the complete underwater picture in real-time.

## APPLICATIONS

- Marine Engineering
- Shallow-Water Bathymetric Surveying
- Site Inspection
- Environmental Monitoring
- Site Clearance
- Defense and Security

## INSTALLATION OPTIONS

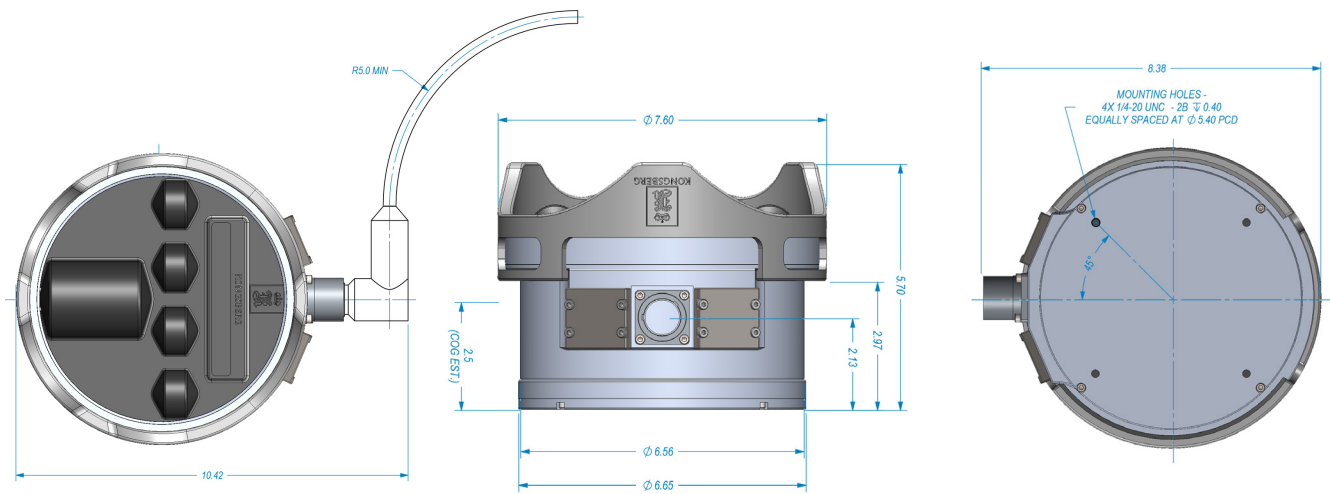
- Pole mount on a surface vessel
- Suitable for a wide range of vehicles from large workclass ROVs to small observation-class ROVs
- Tripod mounted

## M3 SONAR SOFTWARE

The M3 Sonar software was developed specifically for the M3 Sonar to manage communications with the head and operate all beamforming and image processing.

There are four predefined operating modes:

1. **Imaging:** Long-range navigation with high-speed update rate.
2. **Enhanced Image Quality (eIQ):** Greatest image quality (0.95° angular resolution) from a short range with a slower update rate.
3. **ROV Navigation:** Selects eIQ or imaging based on range.
4. **Profiling:** Narrow 3° beam used to generate a 3D point cloud.



## TECHNICAL SPECIFICATIONS

### SONAR SPECIFICATIONS

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

### IMAGING MODE

Horizontal FOV:	120°
Vertical beamwidth:	3°, 7°, 15°, 30°
Angular resolution:	1.6°
Update rate:	up to 40 Hz

### EIQ IMAGING MODE

Horizontal FOV:	140°
Vertical beamwidth:	30°
Angular resolution:	0.95°
Update rate:	up to 10 Hz

### PROFILING MODE

Horizontal FOV:	120°
Vertical beamwidth:	3°
Number of beams:	256
Update rate:	up to 40 Hz

### INTERFACE SPECIFICATIONS

Communication:	Ethernet
Data rates:	10/100/1000 Mbps
Input voltage:	12 to 36 VDC
Input power:	22 W (avg.), peak power < 60 W, mode dependant
Operating System:	Windows 11

### ENVIRONMENTAL SPECIFICATIONS

<b>Temperature</b>	
Operation:	-2°C to +38°C
Storage:	-40°C to +55°C
<b>Shock and Vibration</b>	
Shock Qualified:	+/-50 gs, 3 axes, 6 shocks per axis
Vibration Qualified:	4 g, 30 Hz 3 axes, 2 hours per axis. No resonance below 800 Hz

### MECHANICAL SPECIFICATIONS

Width:	213 mm (8.38 in)
Height:	145 mm (5.70 in)
Weight in Air:	4.6 kg
Weight in Water:	1.7 kg
Depth Rating:	500 m
Connector Type:	SEA CON®
Connector Model:	MINK-10-FCRL
Materials:	Anodized Aluminum, Stainless Steel 316, Elastomeric Polyurethane

922-20017901-1.6

### KONGSBERG DISCOVERY CANADA

1598 Kebet Way, Port Coquitlam, BC, Canada, V3C 5M5  
 Phone: 1-604-464-8144  
 Toll-Free: 1-888-464-1598

sales.vancouver@kd.kongsberg.com



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