M3 SONAR® HF - 4000 M

HIGH-FREQUENCY SONAR WITH SYNCHRONIZATION AND 1PPS

P/N 922-20300000

KONGSBERG

Receive Transducer

Imaging/Profiling Transducer

FEATURES

- Up to 4000 m water depth
- Imaging and profiling capabilities
- 700 kHz to 1400 kHz operating frequency
- GeoTIFF output for image mosaics
- Intuitive and easy-to-use software
- Significant time savings
- Integrated tilt and pan/tilt control

MULTIMODE MULTIBEAM FOR MULTIPLE APPLICATIONS

Kongsberg Mesotech's M3 Sonar HF is a multibeam system with both imaging and profiling capabilites. The M3 Sonar HF 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 100 meters combined with up to a 140° field of view allows the operator to see the complete underwater picture in real-time. The M3 Sonar HF provides high-resolution images at short range, reducing the time it takes to search for and locate targets.

APPLICATIONS

- Pipeline survey and inspection
- Fish behaviour monitoring
- Fish habitat mapping
- Infrastructure inspection
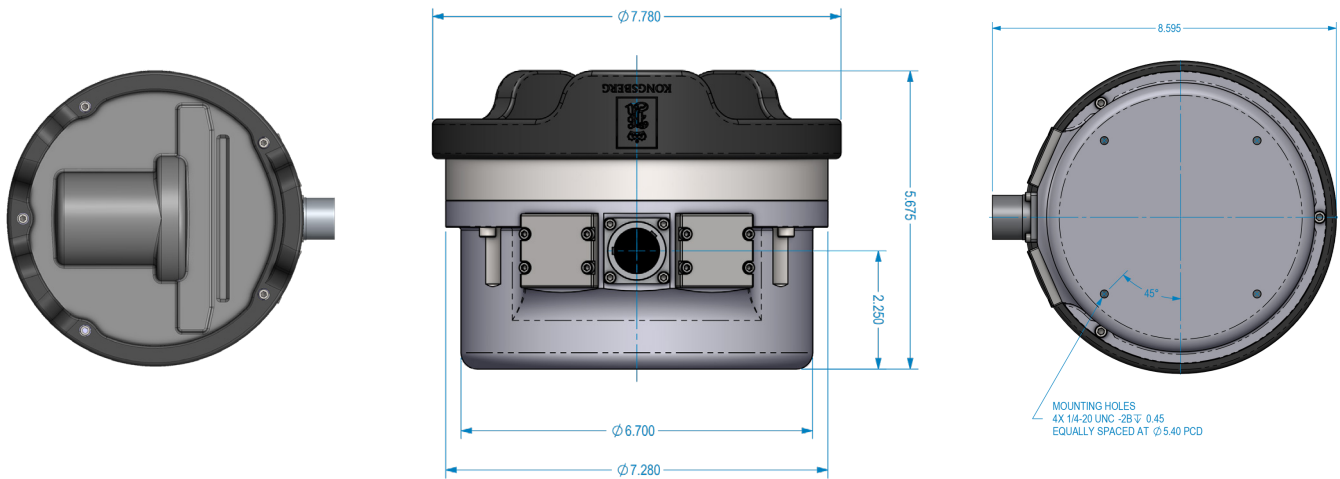- Dredge monitoring
- Cable laying and trenching

INSTALLATION OPTIONS

- Pole mount on a surface vessel
- Suitable for a wide range of vehicles from ROVs to USVs and ASVs
- Tripod mounted

M3 SONAR SOFTWARE

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

The predefined imaging modes present distortion-free images at a high update rate. For an alternative data visualization, the provided profiling modes generate a 3D point cloud.

TECHNICAL SPECIFICATIONS

SONAR SPECIFICATIONS

Range:	0.2 m to 100 m
Range resolution:	1 cm
Frequency:	700 kHz - 1400 kHz
Pulse types:	CW, CHIRP
Update rate:	up to 40 Hz
Max. number of beams:	512

700-KHZ MODES

Detection range:	100 m
Coverage:	140°
Imaging beamwidth:	1.0° x 30°
Profiling beamwidth:	1.0° x 1.8°

950-KHZ MODES

Detection range:	70 m
Coverage:	140°
Imaging beamwidth:	0.8° x 27°
Profiling beamwidth:	0.8° x 1.4°

1200-KHZ MODES

Detection range:	50 m
Coverage:	75°
Imaging beamwidth:	0.65° x 21°
Profiling beamwidth:	0.65° x 1.1°

1400-KHZ MODES

Detection range:	30 m
Coverage:	45°
Imaging beamwidth:	0.55° x 18°
Profiling beamwidth:	0.55° x 0.9°

INTERFACE SPECIFICATIONS

Communication:	Ethernet
Data rates:	10/100 Mbps
Input voltage:	12 to 36 VDC
Input power:	50 W (avg.), peak power < 70 W, mode dependant
Operating System:	Windows 10
Synchronization:	PRI Sync, 1PPS

ENVIRONMENTAL SPECIFICATIONS

Temperature

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

MECHANICAL SPECIFICATIONS

Width:	218 mm (8.59 in)
Height:	144 mm (5.67 in)
Weight in Air:	7.8 kg (17.3 lbs)
Weight in Water:	5.0 kg (11.0 lbs)
Depth Rating:	4000 m
Connector Type:	SEA CON®
Connector Model:	MINK-10-FCRL
Materials:	Titanium, Elastomeric Polyurethane

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