Kongsberg Mesotech is recognized as a leader in single-beam scanning sonars, developing systems with the highest quality and highest resolution on the market.

This 1171-series Sonar Head uses new transducer construction techniques optimized to provide low noise and high-resolution sonar operation at frequencies from 600 kHz to 1.5 MHz.

This wide-frequency, dual-transducer configuration is ideal for both imaging and profiling applications where data clarity supersedes any other requirement at operating ranges from 25 m out to more than 150 m.

This 1171 Sonar Head is well suited for bottom clearance, body recovery, underwater construction support, pipeline and cable surveys, bridge and pier inspection applications.

The open-face transducer design is ideal for all water temperatures, and the beam pattern is not affected by thermal defocusing. This Sonar Head uses Ethernet 10Base-T or 100Base-Tx telemetry and is operated using the MS1000 software.
## TECHNICAL SPECIFICATIONS

### PERFORMANCE DATA

<table>
<thead>
<tr>
<th>Preset Frequencies</th>
<th>600 kHz</th>
<th>675 kHz</th>
<th>900 kHz</th>
<th>1 MHz</th>
<th>1.2 MHz</th>
<th>1.5 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fan Beam Width (nom)</td>
<td>45° x 1.0°</td>
<td>38° x 0.9°</td>
<td>30° x 0.6°</td>
<td>25° x 0.6°</td>
<td>28° x 0.6°</td>
<td>-</td>
</tr>
<tr>
<td>Cone Beam Width (nom)</td>
<td>2.5°</td>
<td>2.4°</td>
<td>1.8°</td>
<td>1.6°</td>
<td>1.3°</td>
<td>1.0°</td>
</tr>
<tr>
<td>Range (typical with LFM)</td>
<td>150 m +</td>
<td>150 m</td>
<td>100 m</td>
<td>75 m</td>
<td>40 m</td>
<td>25 m</td>
</tr>
</tbody>
</table>

- **Range Resolution**: ≥7.5mm @10µs pulse length @ 1500 m/s speed of sound
- **Range Sampling**: ≥1mm
- **Scan Speed (nom)**: 8 sec/360° @ 10 m and 1.8° step size (@ 460 kbits/sec.)
  18 sec/360° @ 50m and 1.8° step size (@ 460 kbits/sec.)
- **Scan Angle**: 360° continuous and user-sectored
- **Step Size**: 0.225° (minimum) - 7.2° (user selectable)
- **Transmit Pulse Widths**: 0 to 2500µs (manual or auto selected for optimized operation)
- **Receive Bandwidth**: 200 kHz max. (auto selected to suit pulse length and sample rate)
- **Telemetry**: Ethernet 10Base-T or 100Base-Tx (auto sensing)
- **Telemetry configurations**:
  - **Fixed**: Downlink: 9600 bps to 460 kbps (user selected for compatibility with other serial communication equipment)
  - **Uplink**: same speed as downlink
  - **Optimized**: Downlink: 9600 bps to 460 kbps (auto set to highest rate allowed by the quality of the telemetry link)
  - **Uplink**: same speed as downlink

### PHYSICAL SPECIFICATIONS

- **Power Requirement**: 22-60 VDC, 28W
- **Temperature Range**:
  - Operating: -10 to +40°C
  - Storage: -30 to +40°C
- **Operating depth**: 3,000 m
- **Connector**: SubConn 8-pin, MCBH8M Series
- **Materials**:
  - Aluminum 6061-T6, 300 Series S.S.
- **Weight**:
  - In Air: 14.2 lb / 6.4 kg
  - In Seawater: 6.7 lb / 3.0 kg

Specifications subject to change without any further notice.

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