

# MS1171

## Multi-Frequency profiling sonar head



The 1171 Series of Sonar Heads have been developed to meet the requirements for deep ocean applications. The new sonar heads have reduced size and weight while providing the high level of data quality characteristic for all Kongsberg Mesotech sonars. The Multi-Frequency design allows optimizing the profiling configuration for different applications. The transducer is protected within an oil-filled, pressure compensating dome. The telemetry is RS485 and RS232 compatible and is automatically sensed and configured at start up to match the telemetry link used. The sonar head operation is configured and controlled using the MS1000 Software Processor.

### Specifications

<b>Product</b>	MS1171 Multi-Frequency profiling sonar head
<b>Country of origin</b>	Norge
<b>Manufacturer</b>	Kongsberg Discovery

## Specifications

<b>Operating frequency</b>	User selectable from 675 kHz to 1350 kHz	
<b>Beam width</b>	1.9° Cone (@675kHz) to 1.0° Cone (@1350kHz)	
<b>Range</b>	0.5 - 75 m typical (@675kHz)	
<b>Range resolution</b>	≥ 0.5 cm (determined by transmit pulse width and receive bandwidth settings)	
<b>Range sample count</b>	238, 476, 952, 1904 (Low Resolution, High Resolution, Zoomx1, Zoomx2)	
<b>Sampling resolution</b>	≥ 0.5mm (function of range selection)	
<b>Scan speed</b>	typical 3.7 sec/360° @ 5 m and 1.8° step size nominal 34 sec/360° @ 100 m and 1.8° step size	
<b>Scan angle</b>	360° continuous (user adjustable for limited sector scans)	
<b>Step size</b>	0.45° - 7.2 (user selectable)	
<b>Transmit pulse widths</b>	5µs to 1000µs (auto selected for optimized operation)	
<b>Receive bandwidth</b>	200kHz max. (auto selected to suit pulse length & sample rate)	
<b>Telemetry</b>	RS485 or RS232 asynchronous serial data	
<b>Telemetry configurations</b>	Legacy mode	Downlink: 9600 bps fixed Uplink : 9600 bps to 460 kbps (auto set to highest rate allowed by the quality of the telemetry link)
	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 (user selected for compatibility with other serial communication equipment) Uplink: same speed as downlink
<b>Power requirement</b>	22-26 VDC @ ≤ 0.8A	
<b>Temperature range</b>	-10 to +40°C operating -30 to +40°C storage	
<b>Operating depth</b>	4000 m	
<b>Connector</b>	Mini Burton 5507-1506; optional connectors based on customer request	
<b>Materials</b>	Alum 6061-T6, 300 Series S.S., Urethane	
<b>Finish</b>	Anodize, Black/Gold MIL-A-8625 type II	
<b>Dimensions</b>	Diameter: 4.2in/107mm Length: 11.0in/279mm (excluding connector)	
<b>Weight</b>	In Air: 7.6lb/3.4kg In Seawater: 3.2lb/1.5kg	

