

The Oculus M series multibeam sonars are a new generation of compact imaging sonar, designed for use across a wide variety of underwater applications.

Their small form factor makes them ideally suited for deployment onto micro sized platforms, while their rugged construction also makes them an excellent choice for larger work-class vehicles and subsea infrastructure.



Oculus M1200d  
125mm x 122mm x 62mm  
360g in water, 980g in air

## M370s

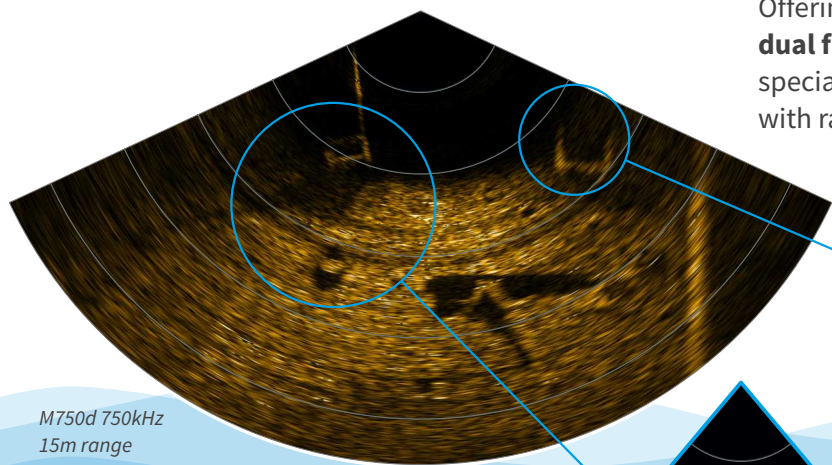
With a 200m range capability, this sonar is a cost effective alternative to traditional mechanically scanned sonars, typically being used for long range navigation and situational awareness.

## M750d

A general purpose **dual-frequency** 750kHz/1.2MHz sonar offering up to 120 metre range capability for navigation and high resolution imagery for near field target identification.

## M1200d

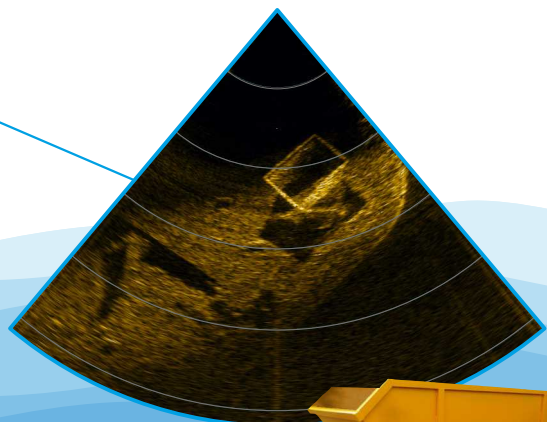
Offering the highest resolution in the M series range, the **dual frequency** 1.2MHz/2.1MHz M1200d may be used for specialised inspection tasks where image quality is critical with ranges up to 40m.



M750d 750kHz  
15m range



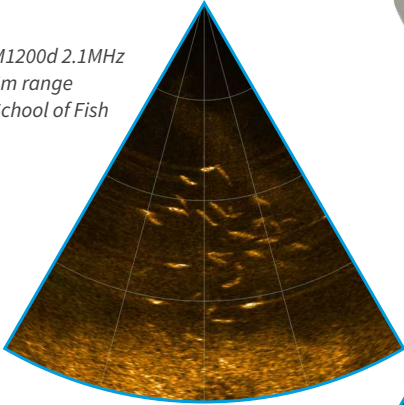
M750d 1.2MHz  
Car Tyre & IBC



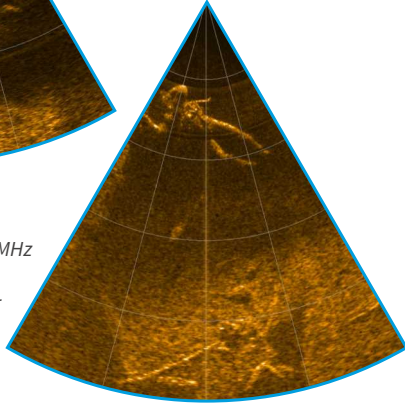
M750d 1.2MHz  
Skip/Dumpster



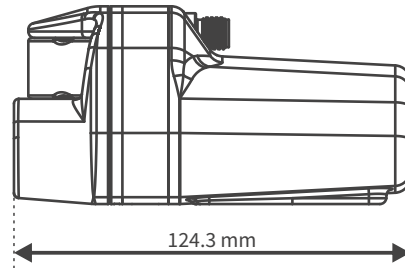
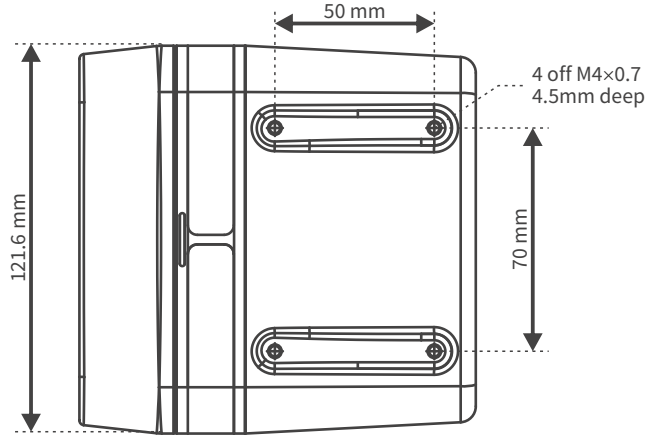
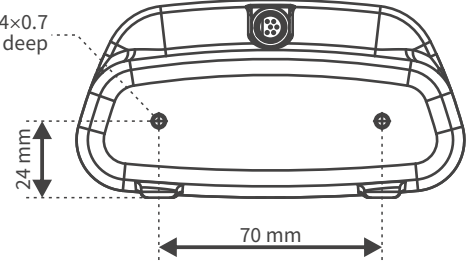
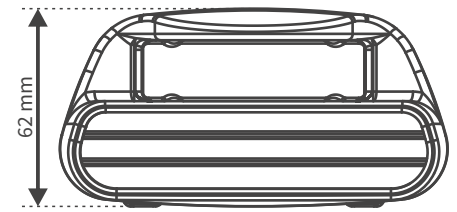
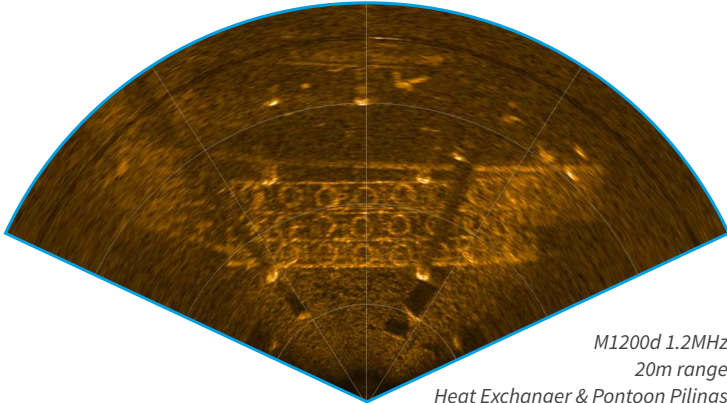
M1200d 2.1MHz  
5m range  
School of Fish



M1200d 2.1MHz  
5m range  
Scuba Diver



M1200d 1.2MHz  
20m range  
Heat Exchanger & Pontoon Pilings



## Specifications

### Mechanical

<b>Dimensions</b>	125mm Long × 122mm Wide × 62mm High
<b>Construction</b>	Anodised Aluminium
<b>Weight</b>	980g (air), 360g (water)
<b>Depth Rating</b>	300m
<b>Temperature Range</b>	-5°C to +35°C (operating) -20°C to +50°C (storage)

### Electrical

<b>Connector</b>	Impulse IE55 Series, 6-way
<b>Communications</b>	4-wire 100-BaseT Ethernet, 2-wire DSL extender module (Trigger in/out and RS232 aux options ♦)
<b>Supply Voltage</b>	18V to 32V isolated DC (12V non-isolated option ♦)
<b>Power Consumption</b>	10W to 35W (model and range dependent ★)
<b>Integrated Sensors</b>	Water pressure and temperature (for Velocity-of-Sound calculation)

### Performance

	M370s BP01041	M750d BP01032	M1200d BP01042
<b>Operating Frequency</b>	375kHz	750kHz / 1.2MHz	1.2MHz / 2.1MHz
<b>Range (max)</b>	200m	120m / 40m	30m / 10m
<b>Range (min)</b>	0.2m	0.1m	0.1m
<b>Range Resolution ★</b>	8mm	4mm / 2.5mm	2.5mm / 2.5mm
<b>Update Rate (max) ★</b>	40Hz	40Hz	40Hz
<b>Horizontal Aperture</b>	130°	130° / 70°	130° / 60°
<b>Vertical Aperture</b>	20°	20° / 12°	20° / 12°
<b>Number of Beams (max)</b>	256	512	512
<b>Angular Resolution</b>	2°	1° / 0.6°	0.6° / 0.4°
<b>Beam Separation</b>	0.5°	0.25° / 0.16°	0.25° / 0.16°

★ indicates parameter is dependent on range  
♦ consult factory for availability and further details