

Datasheet

Wideband Mini Transponder (WMT)



Description

Sonardyne's existing Wideband Sub-Mini transponder (WSM) is typically interrogated by a responder trigger down the ROVs' umbilical or a narrow band tone signal. In some situations, reverberation or multipath of the tone interrogation can cause interference problems. The new WMT is Sonardyne's first mini-sized transponder, slightly larger than the WSM and providing full two-way Wideband interrogation and reply which completely mitigates interference from other users and to other users.

For use on ROVs, the WMT includes responder trigger, an integrated Li-Ion battery pack that is charged from the ROV's power supply and full RS232 communications enabling channel set up, power, gain etc. to be changed from the surface.

An On/Off switch helps ensure the battery pack is not discharged when not in use. When an umbilical trigger is not available, then full Wideband mode provides excellent USBL performance in a small, lightweight form.

New remote transducers, either omni or directional are available for both the WMT and existing WSM range. These make installation on an ROV easier as the transducer can be installed where there is good line-of-sight.

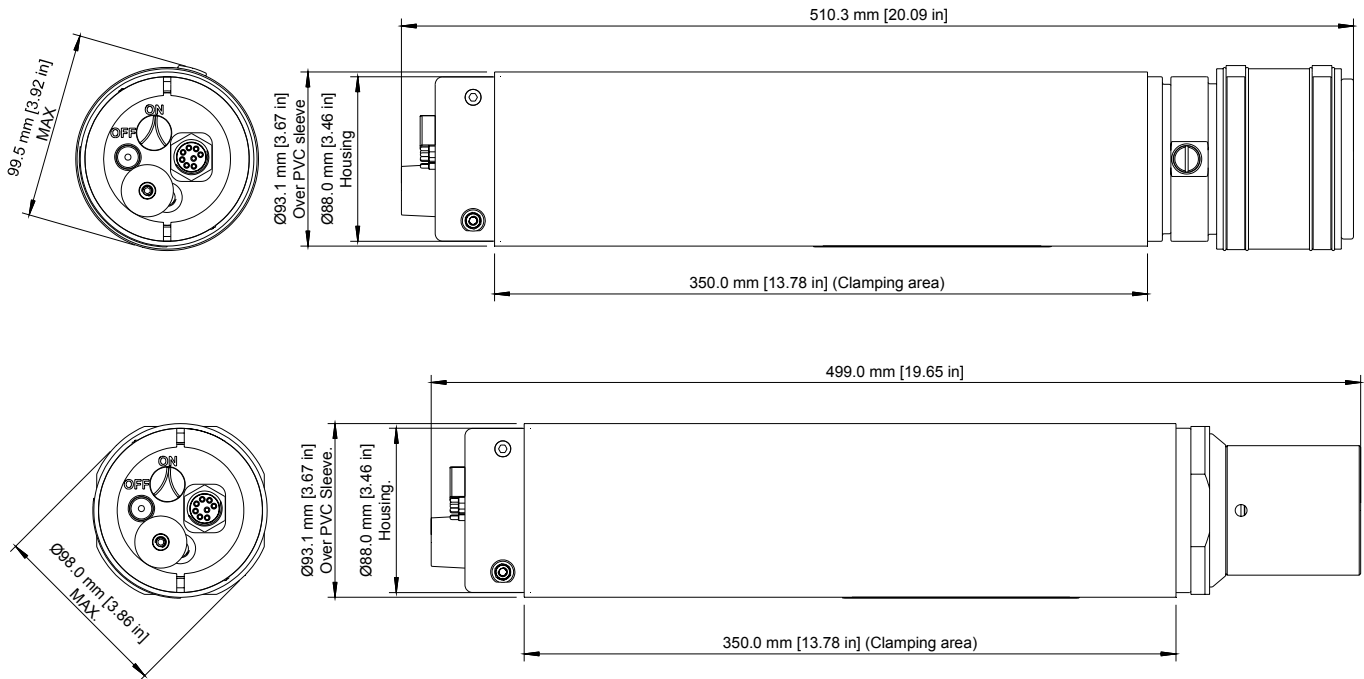
The main body of the transponder, the more expensive part, can then be installed within the ROV frame where it is well protected. Transducers can then be easily replaced if damaged.

Key Features

- Full two-way Sonardyne Wideband® interrogation and reply – mitigates any interference and multi-path issues
- Mini size – lightweight and small
- Responder mode
- Li-Ion battery pack
- Optional remote transducer
- Pressure sensor option
- Full RS232 control from the surface
- External On/Off switch
- New, versatile and future-proof design

Specifications

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System Features		Type 8190-3111	Type 8192-3112
Depth Rating		3,000 Metres	3,000 Metres
Frequency Band		MF (19-36kHz)	MF (19-36kHz)
Transducer beam shape		Omni-Directional $\pm 130^\circ$	Directional $\pm 40^\circ$
Source Level (re 1 μ Pa @ 1m)	High Power	187 dB	193 dB
	Low Power	181 dB	187 dB
Depth Sensor		$\pm 0.5\%$ full scale	$\pm 0.5\%$ full scale
Communications Interface		RS232 (9,600 – 115,200 baud)	
External Supply Voltage		18-50 Volts DC	18-50 Volts DC
External Power	Sleep	<300mW	<300mW
	Wideband Listening	<500mW	<500mW
	Battery Charging	6W	6W
	Peak (during transmission)	<50W	<50W
Battery Life (Lithium Ion 15V)	Listening	30 days	30 days
	Continuous 5 sec interrogation	Approx 6 days at low power	Approx 6 days at low power
Mechanical Construction		Anodised Aluminium alloy and Plastics	Anodised Aluminium alloy and Plastics
Dimensions		499mm x 93mm	510mm x 98mm
Weights (Air / Water)		5.1 / 2.2Kg	7.0 / 3.5Kg
Options		Remote, cable connected transducer (see separate datasheet)	