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Datasheet

High Power Transponder/Responder (Discontinued)

Description

This Type 7823 High Power Transponder/Responder has been developed for operation with the Sonardyne Ultra-Short BaseLine System (USBL) Type 7707 in deep water on a Towfish or ROV. It can also be interrogated by other systems such as Sonardyne PAN Type 7145.

The Transponder/Responder has been designed as part of Sonardyne's integrated family of underwater acoustic navigation equipment and operates in the frequency band of 20-30kHz.

Its high power output and pressure rating make it ideal for operation at long range in deep water. Its ability to operate as a Responder makes it suitable for use on noisy ROVs and its reversion to Transponder mode when the trigger is disconnected or held low means that it will allow the position of the ROV to be determined if connections to it are lost.

The excellent transducer response time and stable turnaround delays allows good measurement accuracies to be achieved and the delayed response provides a 'down to zero' ranging capability.

It operates as a Responder if the trigger input is pulsed, transmitting 61.3ms after the positive edge of the trigger pulse. Otherwise if the trigger input is unused or held low it operates as a Transponder with a turn around delay time of 62.5ms.

It is designed for the MF band and optimised to give maximum source level transmitting around 27kHz. Other channels can be selected using an internal switch.

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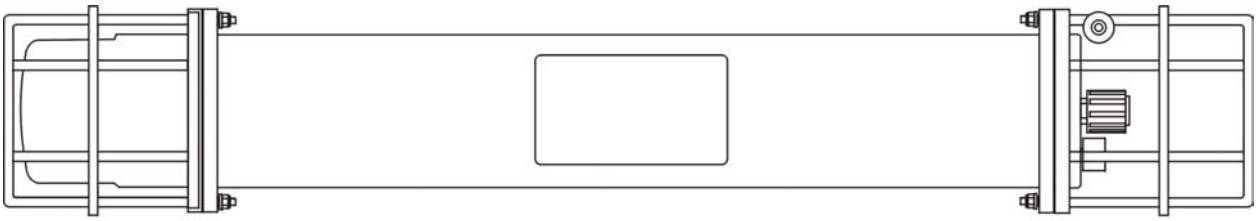
Specifications

High Power Transponder/Responder (Discontinued)



Feature	
Depth Rating	4,000 Metres
Operating Frequency	HF (18-36kHz)
Quiescent Life	730 days
Operating Frequency	HF (18-36kHz)
Source Level	208dB re 1µPa @1m
Directivity Index	12dB @ 0º (Beamwidth ±15º)
Pulse Index	8ms
Receiver Sensivity	80dB
Responder Trigger Delay	61.3ms
Transponder Turn Around Delay	62.5ms
Power	Alkaline
Battery Life	600,000
Responder Trigger	TTL pulse (min 10ms) Triggered on Positive going edge. It is configured for simultaneous Transponder and responder Modes
Weight in Air	30kg
Weight in Water	15.5kg