

Datasheet

High Power Transponder / Responder (Discontinued)



Description

Sonardyne's Type 7823-04 is a high powered, directional Transponder/Responder developed for deepwater ROV positioning and long range towfish tracking applications.

Designed with size and weight in mind, the battery pack common to Sonardyne's full size transponders has been removed to give full functionality in a 5,000 metre rated housing that is just 0.6 metres long and weighs 18.5Kg in air.

The unit can be operated in Transponder mode, triggered on the Common Interrogation Frequency, or in Responder mode, electronically triggered, replying on any one of the 14 Sonardyne reply frequencies. This gives the flexibility to avoid a frequency that may already be in use by or one that is being adversely affected by noise.

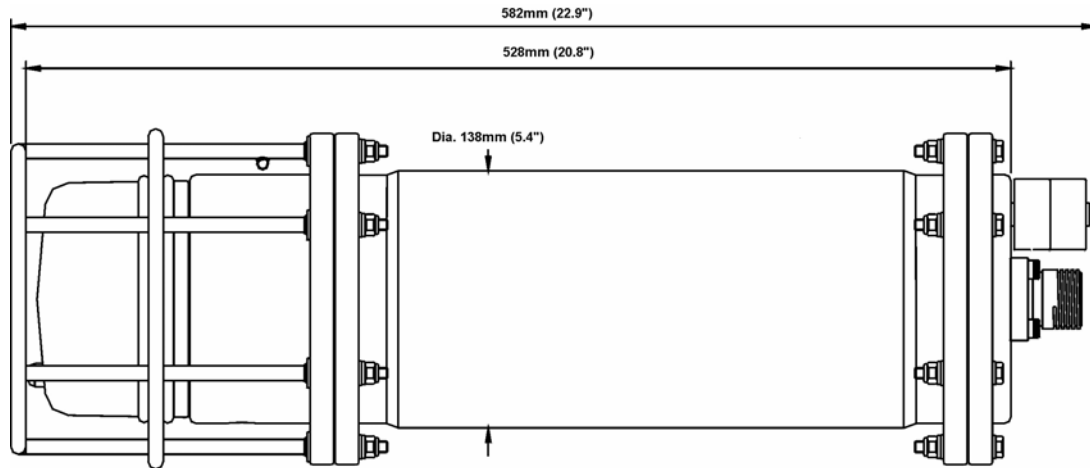
In a deep tow tracking scenario, slant ranges of 5,000 metres can be achieved by utilising the unit's low frequency capabilities. Acoustic energy is attenuated as it passes through the water column, the higher the frequency; the more its energy is attenuated.

Key Features

- Sonardyne USBL compatible
- Depth rated to 5,000 Metres
- High power (205dB) source level enables use over long laybacks
- Directional transducer beam pattern; ± 15 degrees
- Rugged, compact design for ease of mounting on most types of ROV and towfish
- Externally powered via main umbilical
- Can be operated in Responder mode (triggered electrically) or in Transponder mode, interrogated on CIF

Specifications

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Feature	Type 7823-04
Depth Rating	5,000 Metres (6,000 Metres optional)
Operating Frequency	MF (19-32kHz)
Transducer Beamshape	Directional $\pm 15^\circ$
Transmit Source Level (Dependent on Channel)	205 dB re 1 μ Pa @1m
Receive Sensitivity Threshold	<85 dB re 1 μ Pa
Power Supply	28-32V DC @ 2 amps
Directivity Index	12dB at 0°
Pulse Length	4ms
Responder Trigger Delay	61.3ms
Responder Trigger	TTL pulse (min 3ms) triggered on positive going edge. Configured for simultaneous Transponder and Responder modes
Transponder Turn Around Delay	62.5ms
Mechanical Construction	Aluminium Alloy, Hard Anodised
Dimensions (LxDia)	582mm (22.9") x 178mm (7.0")
Weight in Air	18.5kg
Weight in Water	9.2 kg