

Datasheet

Buoy Positioning Transponder (BPT)



Description

The Type 8054 Buoy Positioning Transponder (BPT) has been specifically designed to provide accurate tracking of a vessel relative to an underwater turret buoy or similar. High performance, long battery life, rugged design and ease of installation are important operational factors for this transponder.

A number of BPT transponders plus a Fusion USBL system allow accurate range and bearing measurement of the tanker to the buoy. In addition, integral pressure sensors in the transponder provide accurate depth information as the buoy is raised for docking.

Multiple transponder addresses allow for several buoys to be installed in the same vicinity without causing acoustic interference to each other.

The transponders have a long battery life, are extremely compact in size and can be easily handled by one person.

The outcome of the design is an instrument that is easier and safer to handle, has a low cost and has an extended maintenance period whilst meeting the Ex operating requirements (i.e. safe operation in potentially explosive gas environments). See Type 8053 Gas Safe Transponder.

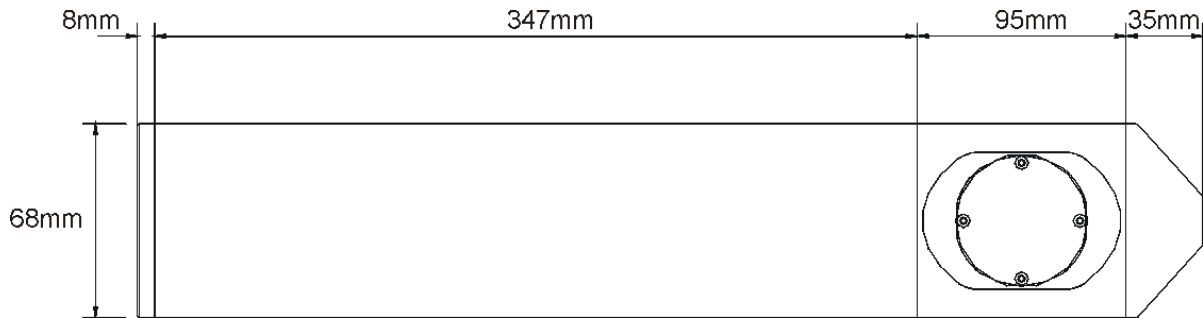
The use of a transducer mounted at right angles to the main axis of the transponder simplifies mounting by hand or ROV on the buoy structure.

Key Features

- Depth rated to 200 Metres
- Up to 5 years listening life
- Choice of standard (Type 8054) or Ex approved designs (Type 8053)
- Integral pressure sensor to provide depth information for the docking process
- Three or six transponder configurations
- Top or bottom (on the buoy) transponder mounting options to satisfy different maintenance philosophies
- Fusion USBL compatible algorithms that track the centre of the buoy and not just the position of a transponder
- Simultaneous transponder tracking with high position update rate

Specifications

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Feature	Type 8054
Depth Rating	200 m
Operating Frequency	Sonardyne MF (19–34 kHz)
Operating Range	1,000 m
Transmit Source Level (dB re 1 μPa @ 1 m)	>190dB
Receive Sensitivity (dB re 1 μPa)	<105dB
Max Listening Life (Lithium Battery Pack)	5 Years
Switch On	Continuously listening
Operational Life (Lithium Pack)	>3 years at 10 hours interrogation per month
Dimensions (L x Dia)	485 x 88.9mm
Weight in Air	7.6kg
Weight in Water	4.8kg
Housing Material	Titanium