

Datasheet

Scout USBL Transceiver



Description

The Type 8024 transceiver is a portable, vessel-mounted acoustic transmitter and receiver designed for use with Sonardyne's family of Scout Ultra-Short Baseline (USBL) acoustic positioning systems.

The transceiver interrogates subsea transponders attached to targets being tracked (ROVs, divers, towfish), receives their replies and calculates the range, bearing and declination to determine the relative x,y,z position from the vessel.

Depending upon the type of Scout system; Scout, Scout Plus or Scout Pro, up to 10 subsea targets can be tracked simultaneously.

Constructed in Aluminium Bronze, the transceiver offers excellent corrosion resistance making it suitable for long term deployment.

A lightweight Aluminium alloy version is also available for applications where weight is an operational factor.

Power and communications are provided by a subsea connector.

Scout transceivers are typically deployed from a rigid pole mounted to the side of the vessel. When a permanent installation is required, the transceiver can be fitted to a through-hull deployment machine.

Sonardyne offers options on both over-the-side and through-hull deployment arrangements. Please contact us for further information.

All USBL systems need to remove the huge effects of vessel motion. To do this they use heading, pitch and roll motion sensors on the vessel.

Scout transceivers are equipped with an integrated motion sensor that automatically compensate for the dynamic motion of the vessel.

For higher accuracy applications, external reference sensors can be used with Scout Plus and Scout Pro.

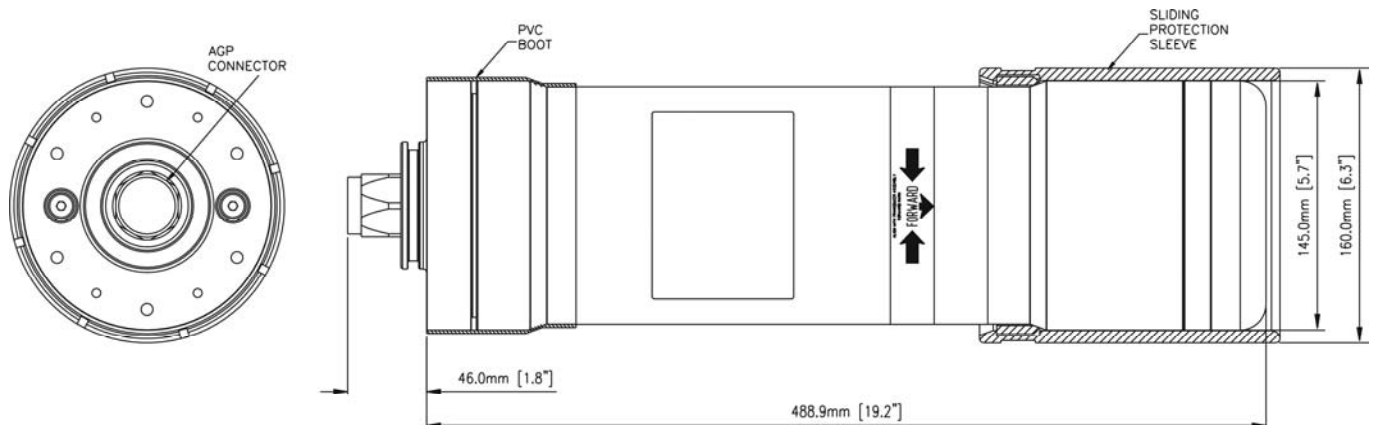
During installation and storage on or off the vessel, the transducer array is protected with a sliding guard. This is raised prior to deployment.

Key Features

- Easy to install and set-up
- Aluminium Bronze housing for long term deployment; optional lightweight aluminium alloy version
- High accuracy performance; up to 0.5% of slant range
- Integrated magnetic heading, pitch and roll sensor reduces purchase and operating costs
- Over-the-side or through-hull deployment options
- Supports transponder Types : 7815, 7986, 7835, 8044, 8070, 8071

Specifications

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Feature		Type 8024
Operating Frequency		Sonardyne HF (35-55 kHz)
Operating Range		500 Metres
Acoustic Coverage		$\pm 90^\circ$ below transceiver
Accuracy		$\pm 2.75\%$ of Slant Range (With integrated heading/pitch/roll sensor) $\pm 0.5\%$ of Slant Range (With external heading/pitch/roll sensors)
Tracking		Simultaneous tracking of multiple subsea targets
Integrated Sensors		Magnetic heading (0.5deg) and Pitch/Roll (0.25deg)
Power		48VDC
Communications		RS485
Deployment Method		Through-hull or Over-the-side
Mechanical Construction	Standard	Aluminium Bronze, Powder Coated
	Lightweight Option	Aluminium Alloy, Anodised
Dimensions (LxDia)	Standard	489mm (19.25") x 160mm (6.3")
	Lightweight Option	500mm (19.7") x 145mm (5.7")
Weight in Air	Standard	18.9kg
	Lightweight Option	10kg
Weight in Water	Standard	8.9kg
	Lightweight Option	2.2kg