

# Datasheet

## Scout USBL Transceiver



**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 Sonardyne 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.

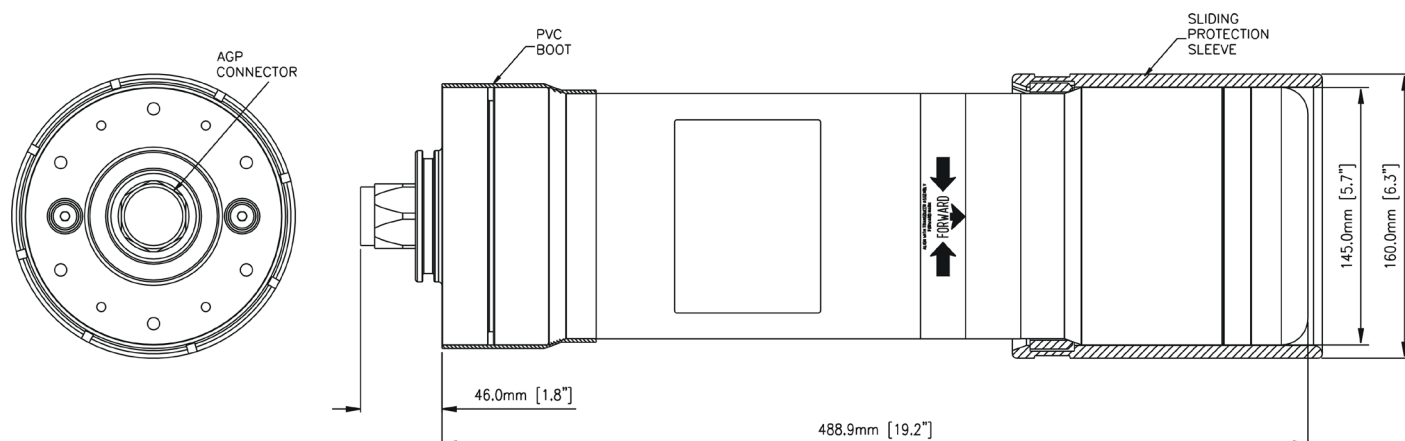
During installation and storage on or off the vessel, the transducer array is protected with a sliding guard. This is raised prior to deployment.

### 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
- Through-hull or over-the-side deployment options
- Supports transponder Types: 7815, 7986, 7835, 8044, 8070,8071

# Specifications

## Scout USBL Transceiver



Feature		Type 8024
Operating Frequency		HF (35-55 kHz)
Operating Range		500 m
Acoustic Coverage		±90° below transceiver
Accuracy	With Integrated Heading/Pitch/Roll Sensor	±2.75% of slant range
	With External Heading/Pitch/Roll Sensors	±0.5% of slant range
Tracking		Simultaneous tracking of multiple subsea targets
Integrated Sensors	Magnetic Heading	0.5°
	Pitch/Roll	0.25°
Power		48 V dc
Communications		RS485
Deployment Method		Through-hull or over-the-side
Mechanical Construction	Standard	Powder coated aluminium bronze,
	Lightweight Option	Anodised aluminium alloy
Dimensions (Length x Diameter)	Standard	489 x 160 mm (9.25 x 6.3")
	Lightweight Option	500 x 145 mm (19.7 x 5.7")
Weight in Air/Water	Standard	18.9/8.9 kg
	Lightweight Option	10/2.2 kg