

# Datasheet

## Small Seismic Transponder 6 (SST 6)



**The Type 8325 Small Seismic Transponder 6 (SST 6) is a small rugged transponder designed for acoustic positioning of ocean bottom seismic cables and nodes, where high-performance, small-size, low-cost and ease of programming are all important operational factors.**

The SST 6 incorporates Near Field Communications (NFC) allowing fast programming of 16 group interrogation addresses and 95 reply channels providing more than 1,520 unique acoustic identities. This allows the marking of seismic cables and other applications demanding dense transponder coverage.

The SST 6 is configured using NFC with a suitable NFC enabled handset (including an NFC enabled Android™ handset with the Sonardyne NFC App) or a dedicated HF Radio Frequency Identification (RFID) reader.

The SST 6 operates in the Medium Frequency (MF) band and is compatible with Sonardyne's Ranger 2 Wideband® Nodal USBL systems that use HPT 5000/7000 transceivers.

Ranger 2 USBL systems measure both range and bearing to SST 6 in the same operation so an accurate position of the node or cable can be determined very quickly and at a high update rate.

Combining the use of Ranger 2 USBL and SST 6 in this way results in considerable savings in vessel time and new standards of efficiency for seismic operations.

Sonardyne Wideband acoustic signal processing offers improved performance in challenging conditions such as at long range, high elevation and long layback tracking, with performance diagnostics provided for quality control.

Sonardyne Wideband signal encoding also reduces the interference both on and by adjacent Sonardyne and other acoustic positioning systems.

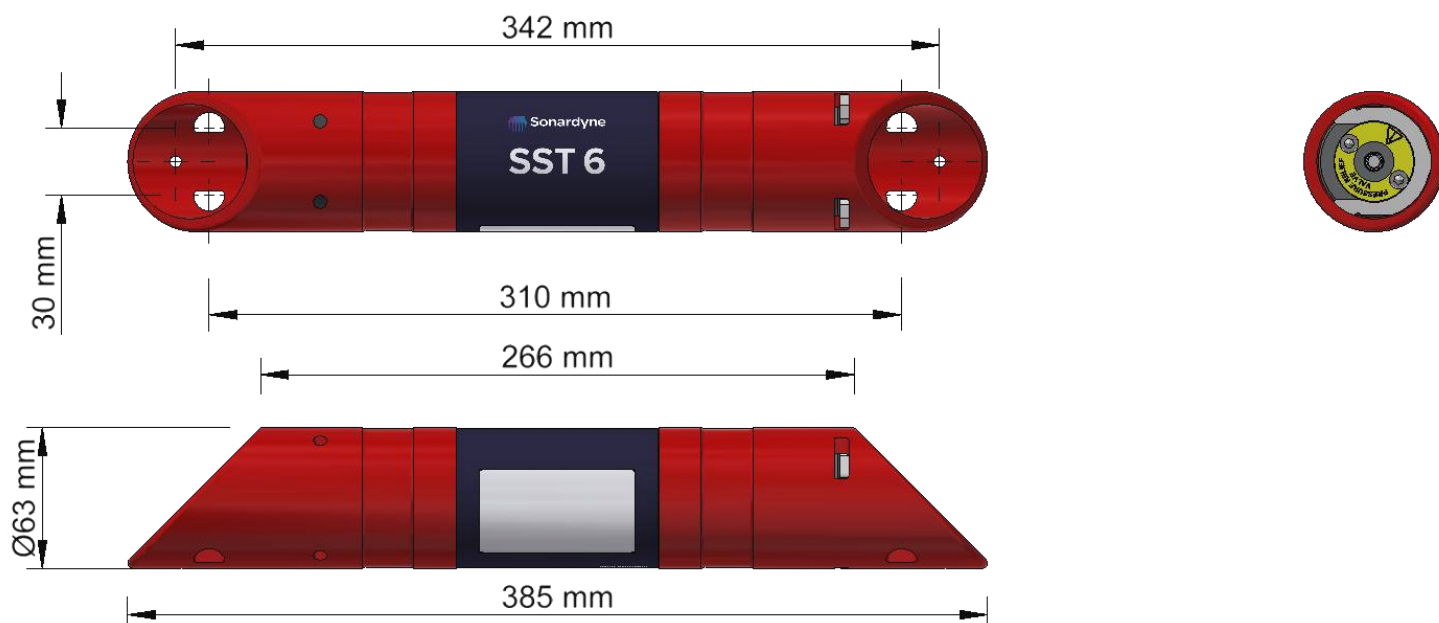
The NFC link provides the ability to enter SST 6 into a storage mode when not in use, thereby significantly increasing the overall battery endurance.

### Key features

- MF frequency band utilising Sonardyne Wideband Nodal protocol
- Compatible with Sonardyne's MF frequency USBL systems (HPT5000/7000 transceivers)
- Programmable to any one of 16 group interrogations and 95 reply channels, providing 1,520 unique acoustic identities
- NFC configuration and diagnostics using a suitable NFC enabled handset with Sonardyne NFC App
- Alkaline battery pack with 9.5 months listening life
- Storage mode eliminates power consumption when not in use
- Depth rated to 1,000 and 3,000 m
- Compact and rugged design

# Specifications

## Small Seismic Transponder 6 (SST 6)



Feature		Type 8325-1111	Type 8325-3311
Depth rating		1,000 m	3,000 m
Operating frequency		MF (20–34 kHz)	MF (20–34 kHz)
Transmit source level (re 1 $\mu$ Pa @ 1 m)		187 dB	187 dB
Individual address		1520	1520
Interrogation groups		16	16
Replies		95	95
Battery life (continuously listening)		9.5 months	9.5 months
Storage mode (battery disconnect via NFC)		5 years (battery self-discharge limited)	5 years (battery self-discharge limited)
Operating temperature		-5 to 40°C	-5 to 40°C
Storage temperature <sup>1</sup>		-20 to 55°C	-20 to 55°C
Mechanical construction	Outer housing	Polypropylene	Polypropylene
	Inner housing	Aluminium alloy	Duplex stainless steel
Dimensions (length x diameter)		385 x 63 mm	385 x 63 mm
Weight in air/water		1.0/0.3 kg	2.0/1.3 kg

<sup>1</sup> To maximise battery life, the recommended storage temperature range when the instrument contains a battery pack is 10 to 25°C (50 to 77°F).