

## Datasheet

# Super Sub Mini Transponder/Responder (SSM)



### Description

Sonardyne's range of Super Sub-Mini Transponder/Responders (SSMs) represents the latest design developments in the acoustic positioning of ROVs, towfish and other subsea targets.

The Type 7973 Super Sub-Mini is depth rated to 1,000 metres and has an omni-directional beam pattern that gives a wide area of acoustic coverage.

For improved positioning accuracy, a built-in pressure transducer provides depth; this can be telemetered to Sonardyne's USBL systems as part of the positioning cycle. A dual external channel selection control, or serial data link, allows the SSM to be used with all of the popular acoustic navigation systems.

The unit's 'bilingual personality' mode automatically senses the type of positioning system interrogating it and switches mode accordingly. In addition, Super Sub-Minis now support more Sonardyne frequencies and all HPR 300 and HiPAP® channels.

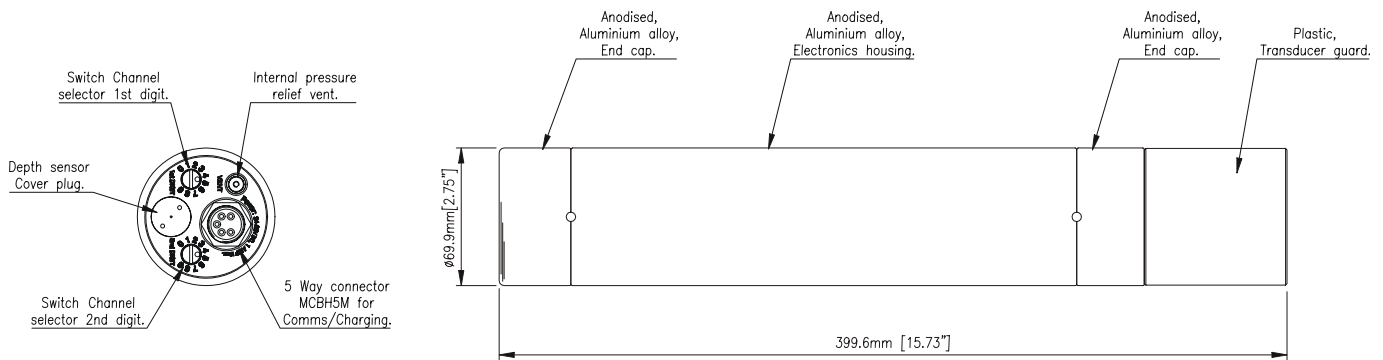
Options for the Type 7973 SSM include a remote transducer that provides added flexibility when sitting the unit on smaller vehicles and a floatation collar to enable seabed deployment.

### Key features

- Depth telemetry capability with 1,000 Metre rated sensor
- 2,000 Metre and 4,000 Metre SSMs also available (Type 7970)
- Directional Beamshape with class leading acoustic power output
- Channel selection via dual external controls or serial data port by PC
- Long-life, fast charging NiMH battery
- Optional remote transducer
- Provides greater flexibility when deciding where to install unit on vehicle
- Ideal for small ROVs and towfish

# Specifications

## Super Sub Mini Transponder/Responder (SSM)



Feature	Type 7973
Depth Rating	1,000 Metres
Operating Frequency	MF (19-36kHz)
Transducer Beamshape	Omni-Directional
Operating Channels	All Sonardyne and HPR 300 / 400 Channels, HiPAP Channels B12-B87
Transmit Source level (dB re 1µPa @1M)	190dB
Receive Sensitivity (dB re 1µPa)	<95dB
Number of Replies	Responder Transponder
	Unlimited 40,000
Depth Telemetry	Yes
Maximum Update Period	750ms
Power Supply	Long-life NiMH battery or External, 24v via ROV's Umbilical
Quiescent Life	42 Days
Mating Connections (Bulkhead)	Subconn MCIL5M
Mechanical Construction	Aluminium Alloy, Anodised
Dimensions (LxDia)	399.6mm (15.7") X 69.9mm (2.7")
Weight in Air	2.7kg
Weight in Water	1.4kg
Options and Accessories	Remote Omni-Directional Transducer, Floatation Collar

### Ordering Information

Type 7973-000-01	Super Sub-Mini
Type 7970-054	Responder Lead (5 metres)
Type 7973-003-01	Remote Transducer
Type 7972 SSM	Charger/Interface Kit
Type 7973-008	Floatation Collar