

## Datasheet

# Wideband Sub-Mini Transponder/Responder (WSM)



### Description

Sonardyne's family of Wideband Sub-Minis (WSM) are a versatile range of USBL transponder/responders designed for positioning ROVs, towfish and other mobile targets in water depths up to 4,000 metres.

Compact and rugged, WSMs incorporate the latest Sonardyne Wideband® signal technology which offers superior ranging accuracy, operation in a multi-user, multi-vessel environment and fast USBL position updates.

In addition to supporting new Sonardyne Wideband® signals, WSMs also support traditional Sonardyne tone and HPR 300 and HiPAP® channels. A link allows the WSM to be configured for use with all of the popular MF frequency acoustic navigation systems.

The Type 8071 WSM is equipped with an omni-directional transducer and is depth rated to 1,000 metres making it suitable for a wide range of general USBL tracking application.

The Type 8070 WSM is a 4,000 metre rated unit and features a high-power directional transducer with an acoustic output comparable to Sonardyne's most powerful full size seabed transponders.

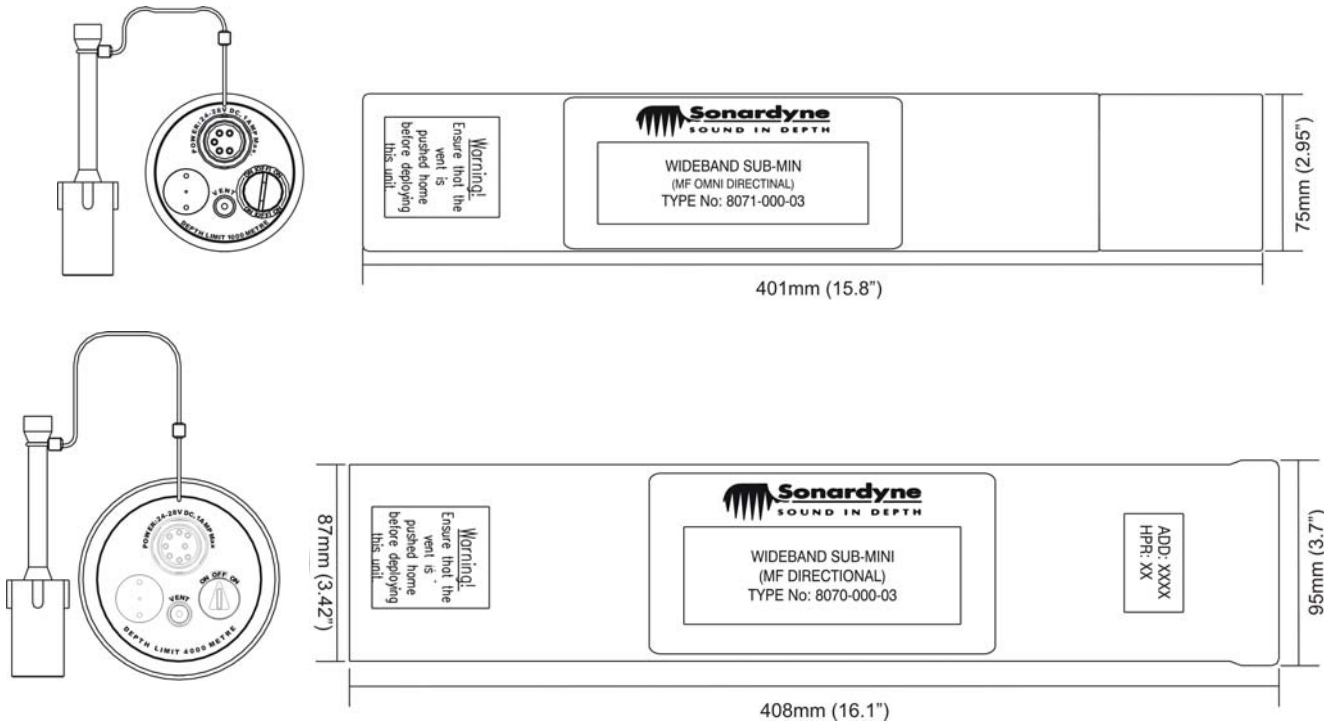
Both types of WSM have a depth sensor fitted as standard to aid USBL positioning accuracy and an external On/Off switch for ease of use and storage when not in use.

### Key Features

- Choice of 1,000 Metre or 4,000 Metre depth rating
- Choice of Omni-Directional or Directional beamshape with class leading acoustic power output
- Channel selection via serial data port by PC
- Transponder or Responder operating modes
- Depth sensor for improved USBL positioning performance
- Long-life NiMH battery
- Compact and rugged design
- Windows based software for test and setup
- External On/Off switch for ease of use and storage

# Specifications

## Wideband Sub-Mini Transponder/Responder (WSM)



Feature	Type 8071	Type 8070
Depth Rating	1,000 Metres	4,000 Metres
Operating Frequency	MF (19-36kHz)	MF (19-36kHz)
Operating Channels	All Sonardyne Wideband/Tone HPR 300 & 400 Channels	All Sonardyne Wideband/Tone HPR 300 & 400 Channels
Transducer Beamshape	Omni-Directional	Directional
Transmit Source Level (dB re 1µPa @ 1m)(26-32kHz)	(External Power) 190dB (Battery – High Power) 188dB (Battery – Low Power) 185dB	202dB 199dB 196dB
Receive Sensitivity (dB re 1µPa)	High Gain <100dB Low Gain <110dB	<100dB <110dB
Power Supply	Long-Life Ni MH battery or ext. 24V via ROV's umbilical	Long-Life Ni MH battery or ext. 24V via ROV's umbilical
Number of Replies (Responder)	Unlimited with External Power	Unlimited with External Power
Depth Sensor	Standard	Standard
Maximum Update Period	750ms	750ms
Quiescent Life	60 Days	60 Days
Mating Connector	Subconn MCIL5F	Subconn MCIL5F
Mechanical Construction	Aluminium Alloy, Anodised	Aluminium Alloy, Anodised
Dimensions (LxDia)	401mm (15.8") x 75mm (2.95")	408mm (16.1") x 95mm (3.7")
Weight in Air	2.7kg	5.0kg
Weight in Water	1.4kg	2.6kg
Battery Charger	7972-000-04	7972-000-04