

Datasheet

Compatt 6 Maxi – Life of Field Multiuser USBL/LBL Transponder and Modem



Description

The Type 8300 Compatt 6 Maxi is a long endurance USBL/ LBL transponder based on the field proven capabilities of Compatt 6.

The ultra-long battery life enables Compatt 6 Maxi transponders to be left in situ throughout all drilling and construction survey activities therefore saving vessel installation time which reduces operational cost.

Compatt 6 Maxi is the ideal transponder when enabled in Sonardyne's multiuser mode whereby the extra battery capacity can offset the increased battery usage of multiuser operations ensuring no extra battery changes are required.

Compatt 6 Maxi is fully compatible with all 6G[®] equipment and Sonardyne latest 6G LBL and USBL systems and other USBL systems such as Kongsberg HiPAP[®]. This allows them to be used as fixed DP and survey references during all survey tasks including metrology, structure deployments, cut to length and umbilical lay.

Sonardyne Wideband[®]2 signals enable seamless multi-vessel 'SIMOPS' capability ensuring no vessel down time.

The long battery life is provided by either lithium or alkaline battery packs giving up to eight years listening life and twice the operational life of a standard Compatt 6 transponder when using lithium batteries. Omni or directional transducers are available along with a range of integrated sensors.

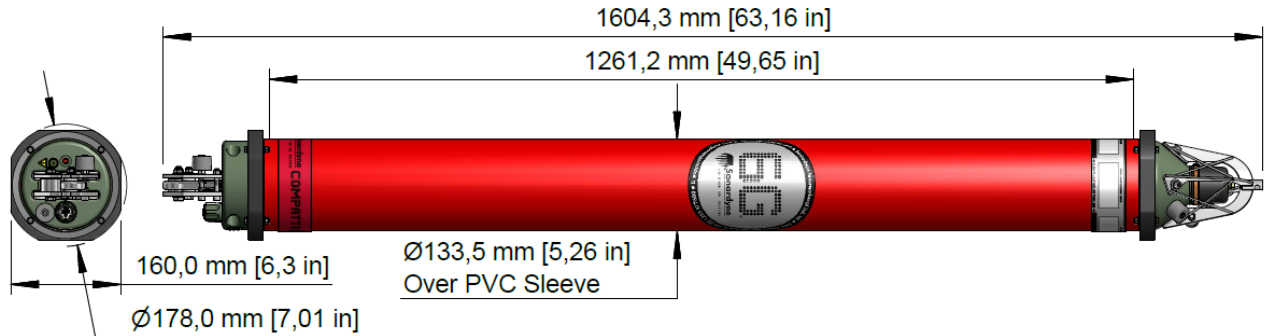
Depth ratings are available in 3000 m and 5000 m, hard anodised aluminium alloy with protective polyurethane sleeve.

Key Features

- Ultra long-life semi-permanent transponder – reduces installation costs and vessel time
- Over twice the operational life of a standard Compatt 6 transponder
- MF frequency band utilising Sonardyne Wideband 2 ranging and telemetry protocols
- Sonardyne Wideband LBL, USBL and LUSBL compatible transponder
- Enables full SIMOPS multi-vessel operations
- Advanced multi-user/multi-vessel capability
- More than 500 unique Sonardyne Wideband 1 and 2 addresses
- Sonardyne Wideband and HPR 400 navigation compatible
- Integrated modem mode with data rates ranging from 100 to 9000 bits per second in multiple frequency bands
- Highly reliable release mechanism
- Standard sensors – temperature, pressure and MEMS inclinometer
- Optional sensors – Paroscientific DigiQuartz pressure sensor, inclinometer and sound velocity
- Battery disconnect fob allows quick battery disconnection.
- Field proven

Specifications

Compatt 6 Maxi – USBL/LBL Transponder and Modem



3 km Depth Rated MF Omni version shown (8300-3121)

Feature	Type 8300-3121	Type 8300-3123
Depth Rating	3,000 Metres	3,000 Metres
Operating Frequency	MF (19–34 kHz)	MF (19–34 kHz)
Transducer Beam Shape	Omni-Directional	Directional
Transmit Source Level (dB re 1 μ Pa @ 1 m)	187-196 dB (4 Levels)	190-202 dB (4 Levels)
Tone Equivalent Energy (TEE)*	193-202 dB	196-208 dB
Receive Sensitivity (dB re 1 μ Pa)	90-120 dB (7 Levels)	80-120 dB (7 Levels)
Ranging Precision	Better Than 15 mm	Better Than 15 mm
Number of Unique Addresses Wideband 1 & 2	>500	>500
Battery Life (Listening) Lithium	400 Days	400 Days
Safe Working Load (4:1)	250 kg	250 kg
Operating Temperature	-5 to 40°C	-5 to 40°C
Storage Temperature	-20 to 55°C	-20 to 55°C
Dimensions; Length x Diameter	1604 x 134 mm	1588 x 134 mm
Weight in Air/Water**	34.8/14.7 kg	37.7/16.6 kg

End Cap Sensors and Options

Temperature ($\pm 0.1^\circ\text{C}$)	Standard	Standard
Tilt Switch ($\pm 30-45^\circ$)	Standard	Standard
Strain Gauge Pressure Sensor ($\pm 0.1\%$)	Standard	Standard
High Precision Strain Gauge ($\pm 0.01\%$)	Optional	Optional
Presens or Keller		
Paroscientific Digiquartz Pressure Sensor 1350 m, 2000 m, 4130 m, 6800 m ($\pm 0.01\%$)	Optional	Optional
Inclinometer (Tilt Sensor)	Standard	Standard
Range $\pm 90^\circ$, Accuracy: $\pm 1^\circ$		
High Accuracy Inclinometer	Optional	Optional
Range: $\pm 90^\circ$, Accuracy: $\pm 0.05^\circ$ over $0 - \pm 15^\circ$; $\pm 0.2^\circ$ over $0 - \pm 45^\circ$		
Sound Velocity Sensor	Optional	Optional
± 0.02 m/s accuracy under calibration conditions		
Release Mechanism	Standard	Standard
Power for External Sensors	Standard	Standard
Gyro Input	Standard	Standard

*TEE – WBv2+ signals are 4x the duration of Sonardyne tone signals (WBv1 & WBv2 are 2x). The TEE figure shows the operational performance when comparing wideband and tone systems.

**Estimated weights (exact weights are dependent on configuration).