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**

![Diagram of Compatt 6 Maxi](image)

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

#### End Cap Sensors and Options

- Temperature (±0.1°C) – Standard
- Tilt Switch (±30-45°) – Standard
- Strain Gauge Pressure Sensor (±0.1%) – Standard
- High Precision Strain Gauge (±0.01%) – Optional
- Presens or Keller
  - Paroscientific Digiquartz Pressure Sensor: Optional
  - 1350 m, 2000 m, 4130 m, 6800 m (±0.01%)
- Inclinometer (Tilt Sensor) – Standard
  - Range ±90°, Accuracy: ±1°
- High Accuracy Inclinometer – Optional
  - Range: ±90°, Accuracy: ±0.05° over 0 - ±15°; ±0.2° over 0 - ±45°
- Sound Velocity 100 mm (±0.017 m/s) – Optional
- Sound Velocity 50 mm (±0.03 m/s) – Optional
- Release Mechanism – Standard
- Power for External Sensors – Standard
- Gyro Input – Standard

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*T – 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).**