

Compatt 6

USBL/LBL transponder and modem



The Compatt 6 transponder is fully compatible with all 6G[®] equipment and Sonardyne's latest 6G[®] LBL and USBL systems.

Compatt 6 offers significant time saving using faster and more robust Sonardyne Wideband^{®2} acoustic ranging and telemetry protocols. This makes any system operating with Compatt 6 significantly easier to operate therefore de-risking operations, reducing vessel time and reducing training requirements for offshore personnel.

Specifications

Product	Compatt 6+ USBL/LBL transponder and modem
Country of origin	UK
Manufacturer	Sonardyne

Typical applications

- Long baseline positioning
- Pipeline lay-down
- Spool piece metrology
- Subsea structure placement

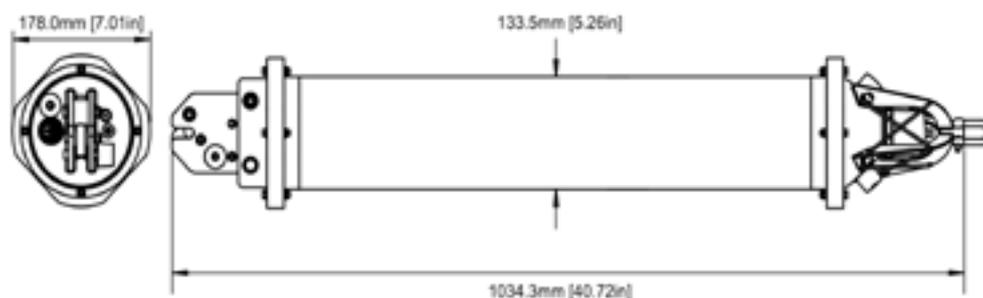
Sonardyne Wideband®2 advanced signal processing offers improved acoustic performance in challenging conditions, longer ranges, improved multipath rejection around structures and real-time range diagnostics for quality control. Sonardyne Wideband®2 also reduces the interference to and from adjacent Sonardyne and other acoustic positioning systems.

The integrated communications and navigation technology allows the transponder to be used as a multipurpose modem, autonomous data logger and navigation reference transponder.

The Type 8300 Compatt 6+ is the standard length version and is based on the field proven mechanics of Compatt 6. The design offers the perfect balance between size, acoustic output and battery life. Several depth ratings are available: 3,000, 5,000 and 7,000 m, all using a hard anodised aluminium alloy with protective polyurethane sleeves.

Key Features

- More robust performance in shallow water and reverberant environments around structures etc
- Real time diagnostics available on ranges to enable quality control
- Reduced mutual interference to further improve simultaneous ops
- Sonardyne Wideband®1 and HPR400 navigation compatible
- Automatic power-down if not used for a programmable period
- Omni or directional transducer
- Optional sensors – Paroscientific DigiQuartz pressure sensor, inclinometer and sound velocity
- MF frequency band utilising Sonardyne Wideband®2 ranging and telemetry protocols
- Dramatically faster and easier to set-up, calibrate and operate
- Advanced multi-user / multi-vessel capability
- More than 500 unique Sonardyne Wideband®1 and 2 addresses
- Faster and easier to set-up, calibrate and operate
- Highly reliable release mechanism
- Standard sensors – temperature, pressure and MEMS inclinometer
- Field proven



Specifications

Feature		Type 8300-3111	Type 8300-3113	Type 8300-5213
Depth rating		3,000 m	3,000 m	5,000 m
Operating frequency		MF (19–34 kHz)	MF (19–34 kHz)	MF (19–34 kHz)
Transducer beam shape		Omni-directional	Directional	Directional
Transmit source level (dB re 1 μ Pa @ 1 m)		187–196 dB (4 levels)	190–202 dB (4 levels)	190–202 dB (4 levels)
Tone Equivalent Energy (TEE)*		193–202 dB	196–208 dB	196–208 dB
Receive sensitivity (dB re 1 μ Pa)		90–120 dB (7 levels)	80–120 dB (7 levels)	80–120 dB (7 levels)
Number of unique addresses Wideband 1& 2		>500	>500	>500
Battery life (listening)	Alkaline	833 days	833 days	50 bar abs +/-0.7% FS
	Lithium	1,390 days	1,390 days	1,390 days
Safe working load (4:1)		250 kg	250 kg	250 kg
External power supply		24 V	24 V	24 V
Ranging precision		Better than 15 mm	Better than 15 mm	Better than 15 mm
Dimensions length x diameter		1035 mm x 134 mm	1010 mm x 134 mm	1010 mm x 143 mm
Weight in air/water		24 kg (12 kg)	27 kg (14 kg)	28 kg (15 kg)

Endcap sensors and options

Feature	Type 8300-3111	Type 8300-3113	Type 8300-5213
Temperature ($\pm 0.1^{\circ}\text{C}$)	Standard	Standard	Standard
Tilt switch ($\pm 30\text{--}45^{\circ}$)	Standard	Standard	Standard
Strain gauge pressure sensor ($\pm 0.1\%$)	Standard	Standard	Standard
High precision strain gauge ($\pm 0.01\%$) Presens or Keller	Optional	Optional	Optional
Paroscientific DigiQuartz pressure sensor 1,350 m, 2,000 m, 4,130 m, 6,800 m ($\pm 0.01\%$)	Optional	Optional	Optional
Inclinometer (tilt sensor) range $\pm 90^{\circ}$, accuracy: $\pm 1^{\circ}$	Standard	Standard	Standard
High accuracy inclinometer range $\pm 90^{\circ}$, accuracy: $\pm 0.05^{\circ}$ over $0 - \pm 15^{\circ}$; $\pm 0.2^{\circ}$ over $0 - \pm 45^{\circ}$	Optional	Optional	Optional
Sound velocity sensor ± 0.02 m/s accuracy under calibration conditions	Optional	Optional	Optional
Release mechanism	Standard	Standard	Standard
Power for external sensors	Standard	Standard	Standard
Gyro input	Standard	Standard	Standard