

Datasheet

Compatt 5 Wideband Transponder - Heavy Load



Description

The Types 8045/8047 Heavy Load Compatt 5 combines the benefits of an advanced subsea navigation transponder with the heavy lift capabilities of an acoustic release transponder for use in the construction survey market.

The transponder has been developed to allow a user to precisely position a structure or load on the seabed and then release it on command using a Sonardyne Long Baseline or Ultra-Short Baseline acoustic navigation system. The need for a separate back deck unit to control the acoustic release is therefore removed, saving operational time and money.

All Medium Frequency Compatt 5s now incorporate Fusion Wideband Technology which uses advanced digital signalling techniques to dramatically improve the performance of acoustic positioning, navigation and telemetry systems.

The faster and more rugged wideband telemetry scheme supported by Compatt 5, enables baseline measurement and calibration data to be acquired faster and more reliably, allowing users to begin work sooner.

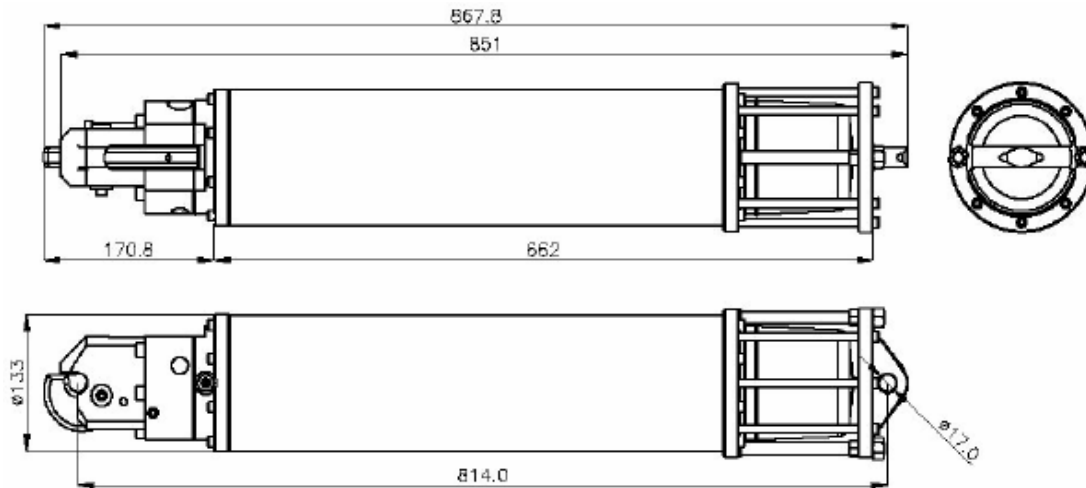
Key Features

- Incorporates Sonardyne's latest Fusion Wideband Technology
- Multiple operating modes; tone burst and wideband
- Safe Working Load of 2½ Tonnes
- Combined LBL & USBL positioning transponder
- Depth rated to 7,000 Metres
- Proven release mechanism
- Choice of short or long housing lengths
- Commandable from vessel or ROV
- Industry standard acoustics (inc. 300/400 series channels - positioning only)
- Excellent corrosion resistance - Ferralium 255
- Integrated temperature, depth and tilt sensor

Standard features include the choice of standard or short housing lengths, Omni or Directional transducers, highly reliable acoustic release mechanism, RS232 interface for test/setup, temperature, depth and tilt sensors and depth rating to 7,000 metres. The unit is fully compatible with all Fusion systems, standard Compatt 5 transponders as well as previous generation LBL and USBL hardware.

Specifications

Compatt 5 Wideband Transponder - Heavy Load



Feature	Type 8045	Type 8047
Depth Rating	7,000 Metres	7,000 Metres
Frequency	MF (18–36kHz)	MF (18–36kHz)
Transducer Beamshape	Omni-Directional	Directional
Operating Range (from surface/ROV)	2,000 Metres	7,000 Metres
Transmit Source Level (dB re 1µPa @ 1m)	185-192dB (Three Levels)	195-202dB (Three Levels)
Receive Threshold (dB re 1µPa)	90-120dB (Four Levels)	90-120dB (Four Levels)
Relative Positioning Accuracy (with Wideband)	0.05-1.0 m	0.05-1.0 m
Number of Unique Addresses (Wideband)	224	224
Number of Unique Addresses (Tone)	All Sonardyne/Simrad	All Sonardyne/Simrad
Battery Life (Listening, Disabled)	Std. Housing 833 days (Alkaline) 1389 (Lithium) Short Housing 417 (Lithium Option Only)	833 days (Alkaline) 1389 (Lithium) 417 (Lithium Option Only)
Safe Working Load (4:1)	2,500Kg	2,500Kg
Release Load	2,500Kg	2,500Kg
Breaking Load	10,000Kg	10,000Kg
Mechanical Construction	Ferralium 255	Ferralium 255
Dimensions (LxDia)	Std. Housing 868mm (34.2") x 145mm (5.7") Short Housing 814mm (32") x (145mm (5.7"))	868mm (34.2") x 145mm (5.7") 814mm (32") x (145mm (5.7"))
Weight in Air	TBA	TBA
Weight in Water	TBA	TBA
Endcap Sensors (Fitted as Standard)	Temperature (PRT) , Tilt Switch ($\pm 30-45^\circ$), Depth (strain Gauge Pressure transducer), Power for external sensors	

Definitions

Safe Working Load – The maximum recommended working load. This is set as a quarter (1/4) of the Breaking Load and makes an allowance for factors such as corrosion, fatigue and dynamic loads

Release Load – The maximum in-line load that the whole assembly can release whilst guaranteeing safe and reliable operation.

Breaking Load – The load that induces structural failure in one or more parts of the instrument causing the load to part from the release mechanism.

Operating Range – The operational range of the Heavy Load Compatt is dependant on the nature of the interrogating transceiver and the noise environment the system is operating in