

Datasheet

Transition Zone Transceiver



Description

The Type 8263 Transition Zone Transceiver (TZ Transceiver) is designed for use with Sonardyne's Transition Zone Ocean Bottom Cable (TZ/OBC) and Small Seismic Transponder 6 (SST 6) transponders.

The Remote Transducer portion of the TZ Transceiver system is normally attached to a rigid pole and deployed over the side of a vessel. A GNSS receiver is typically attached to the top of this pole.

On command from a PC equipped with Sonardyne's HydroPos software, TZ Transceiver acoustically interrogates up to nine TZ/OBC or 95 SST 6 transponders at a time and the acoustic responses are used to generate range measurements to each of them.

By combining many acoustic range measurements made to each transponder with GNSS data input into HydroPos or Gator 2 it is possible to generate accurate positions of all transponders to better than 1 m absolute precision.

The trigger (output) is accessible on pin 9 of the D type connector.

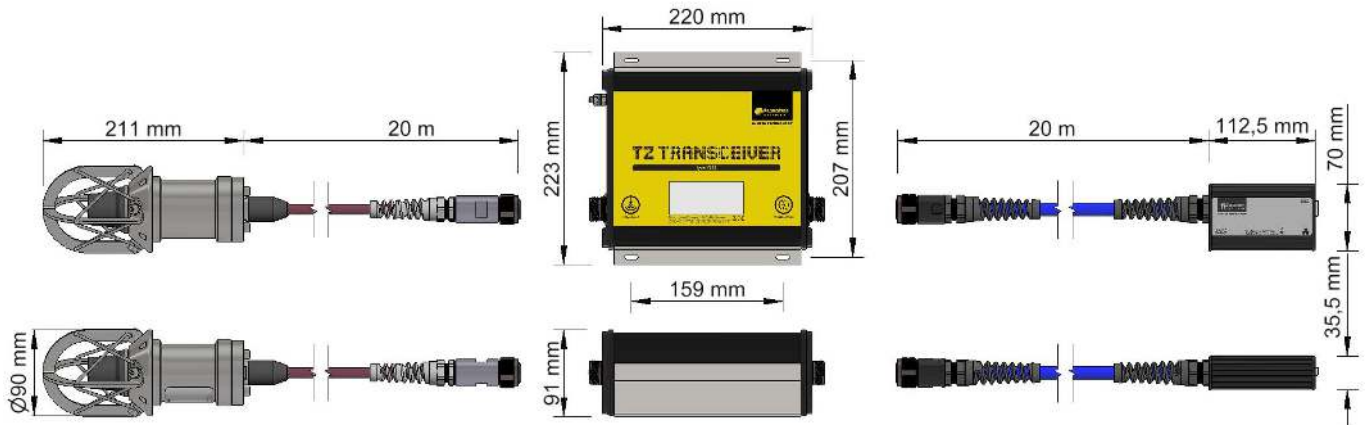
High Frequency (HF) and Medium Frequency (MF) operating band options support TZ/OBC and SST 6 transponders respectively.

Key features

- Interoperation with Sonardyne TZ/OBC and SST 6 transponders
- Simultaneous interrogation of up to 9 TZ/OBC transponders in each group
- Simultaneous interrogation of up to 95 SST6 transponders in each group
- Transmits release commands for LRT (HF) and RT 6-1000 (MF)
- Remote Transducer with 20 m cable for pole attachment
- Splash-proof Transceiver module rated to IP65 for on-deck mounting
- 20 m Deck cable for RS232 Ethernet communications and 28 V dc power
- Configured for use with HydroPos and Gator 2 positioning software systems

Specifications

Transition Zone Transceiver



HF Transducer Shown Above

Feature	Type 8263-010-0021 Transceiver	Type 8263-010-0022 Transceiver
Operating Frequency	HF (35–55 kHz)	MF (19–34 kHz)
Transmit Source Level	>184–186 dB	>184–187 dB
Receive Sensitivity (dB re 1 μ Pa @1 m)	<90 dB	<90 dB
Ranging Precision	Better than 0.5 metre	Better than 15 mm
Addresses	401	1520
Power	28 V dc, max 2 A	
Communications	RS232/RS485* @ 9600 to 115,200 baud, Ethernet.	
Connections	15-way Amphenol (power and communications)/5-way Amphenol (remote transducer)	
Mechanical Construction	Aluminium alloy	
Operating Temperature	-5 to +50°C	
Storage Temperature	-20 to +70°C	
Dimensions (Length x Width x Height)	223 x 220 x 91 mm	
Weight	3 kg	

Feature	Remote Transducer HF	Remote Transducer MF
Operating Frequency	HF (35–55 kHz)	MF (19–34 kHz)
Depth Rating (Acoustic Transducer)	100 metres	
Cable Length	20 metres	
Mechanical Construction	Stainless steel	
Dimensions (Diameter x Length)	90 x 211 mm (without cable)	
Weight in Air	3.7 kg (without cable)	

*The TZ Transceiver is configured for RS232 communications as standard.