

Datasheet

Transition Zone Transponder (TZT)



Type 8365-0001



Type 8365-0002 (with RFID tag)

The Type 8365 Transition Zone Transponder (TZT) is designed to work with Sonardyne's TZ/OBC acoustic positioning system and enables the positions of seismic hydrophone positions to be accurately and efficiently determined.

Prior to deployment from a cable lay boat, the transponders are attached to the seismic cable at each ground station, typically every 50 m. Once the bottom cable is laid, the acoustic system measures the ranges from the surface transceiver to the transponders to enable their exact positions to be established. This positioning process can either be conducted while laying the cable or later while shooting.

The transponders are small and lightweight and have been proven to be able to withstand the demanding and varied operational environment of OBC and TZ surveys.

Standard features include a depth rating of 500 m, a unique acoustic 'address' enabling thousands of units to be laid in a single deployment and automatic battery

voltage monitoring to allow better planning of maintenance schedules.

The Type 8365-0002 TZT includes an RFID tag to enable asset tracking

In OBC operations using a 'squirter' cable deployment system, 'carapaces' are available that provide a fast and secure means of attaching transponders to the cable. The carapaces are manufactured from tough plastic that encapsulates the transponder and optional RFID asset tracking tag, clamping it securely to the cable whilst protecting it from the high cable deployment and recovery speeds.

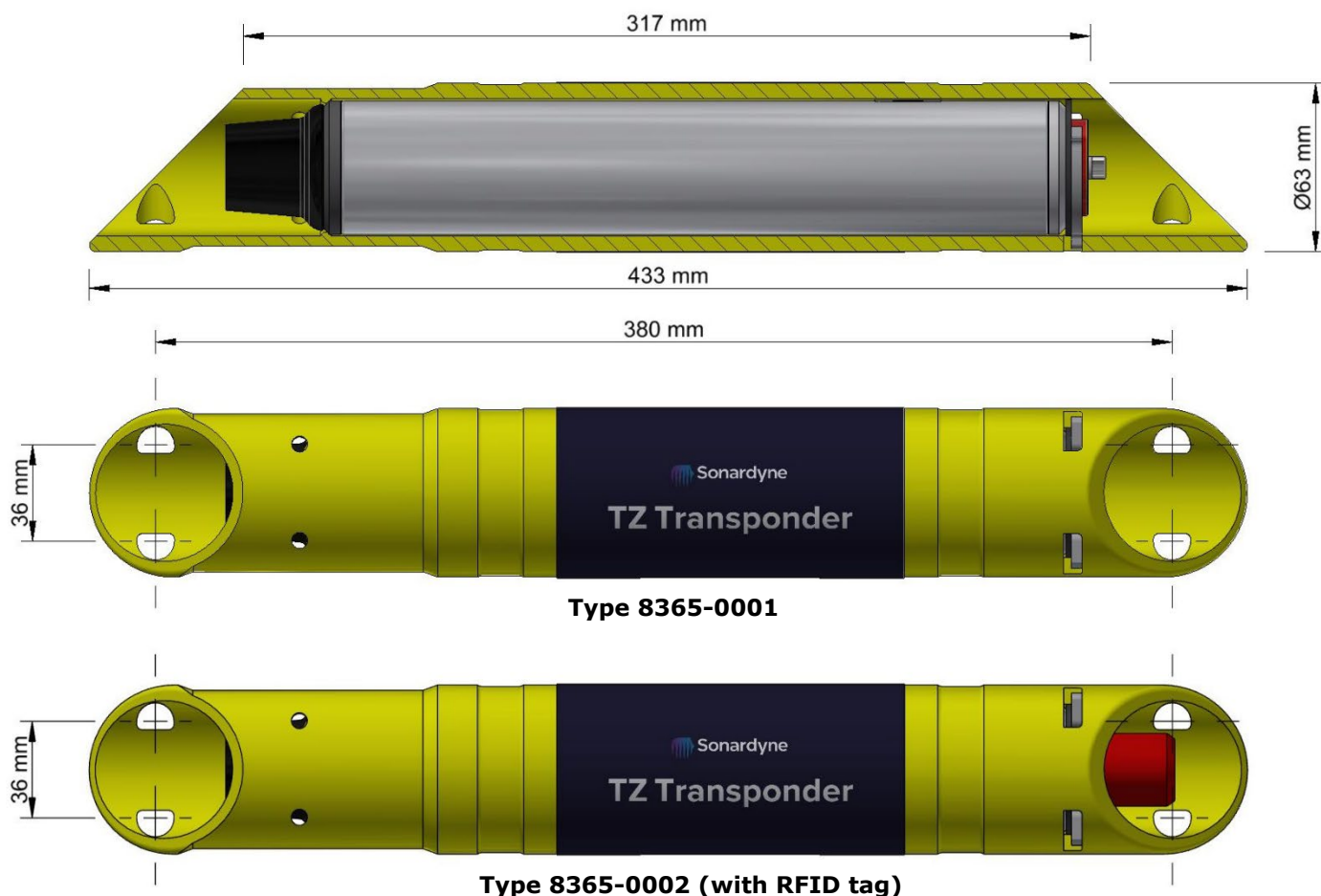
The carapace design which is now in use with many operators around the world has been proven to be easy to fit and reduces long term maintenance when compared with traditional tie-wrap and tape methods. The low-profile shape of the carapace also reduces the risk of snagging and as it is acoustically 'quieter' in the water, creates less noise interference down the cable.

Key features

- Versatile, low-cost transponder
- Depth rated to 500 m
- Provides fast and efficient positioning of OBC cables
- Compact and rugged design
- HF frequency band 34–50 kHz
- Alkaline battery packs give up to 18 months listening life
- Optional RFID tags for asset tracking

Specifications

Transition Zone Transponder (TZT)



Feature	Type 8365-0001	Type 8365-0002
RFID tag	No	Yes
Depth rating	500 m	
Operating frequency	HF (33–50 kHz)	
Transmit source level (dB re 1 μ Pa @ 1 m)	184–187 dB	
Receive sensitivity (dB re 1 μ Pa)	105–115 dB	
Number of unique addresses	3609 (field programmable)	
Battery life (alkaline)	18 months	
Mechanical construction	Anodised aluminium alloy and plastic	
Operating temperature	-5 to +40°C	
Storage temperature	-20 to +55°C	
Dimensions (length x diameter)	433 x 63 mm	
Weight in air/water	1.1/0.2 kg	
Deck unit	Type 7967-000-02 (includes transducer and 10 m of cable)	