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Datasheet

Programmable Generic Transponder (PGT)



Description

The Programmable Generic Transponder (PGT) is the successor to Sonardyne's popular Type 7730 HPR Transponder/Responder. Available in three versions; Type 7971 Omni-Directional, Type 7977 Directional and Type 7978 Super Directional, the PGT family incorporates Sonardyne's latest acoustic design developments with the hardware already installed to permit through-life upgrading of functionality.

Features include a depth telemetry capability for improved positioning accuracy, channel selection via dual external controls (or optional serial data link) and innovative 'screw-off' acoustic release mechanism. These benefits are combined with an increased depth rating (2,500m, 4,000m or 6,000m) and compatibility with all HPR 300 and HPR 400 channels. Where size and weight are important operational factors a short housing version is available (requires external power supply).

Applications for the PGT include the accurate tracking of cable ploughs and deep ROVs, long term marking of seabed targets (e.g. wellheads) and as a position reference transponder for dynamic positioning systems.

Key Features

- Depth rated to 2,500 Metres (4,000 Metre rated option available)
- Channel selection via dual external controls or optional serial data port
- Depth telemetry capability option
- 'Screw-off' acoustic release available
- Choice of housing lengths to suit deployment scenario and application

Type 7977/7978

- Depth rated to 2,500 Metres (4,000 & 6,000 Metre rated option available)
- High power Directional and Super Directional transducers
- Depth telemetry capability option
- 'Screw-off' acoustic release available'
- External On/Off and channel controls
- Choice of short (No battery) or long housing available

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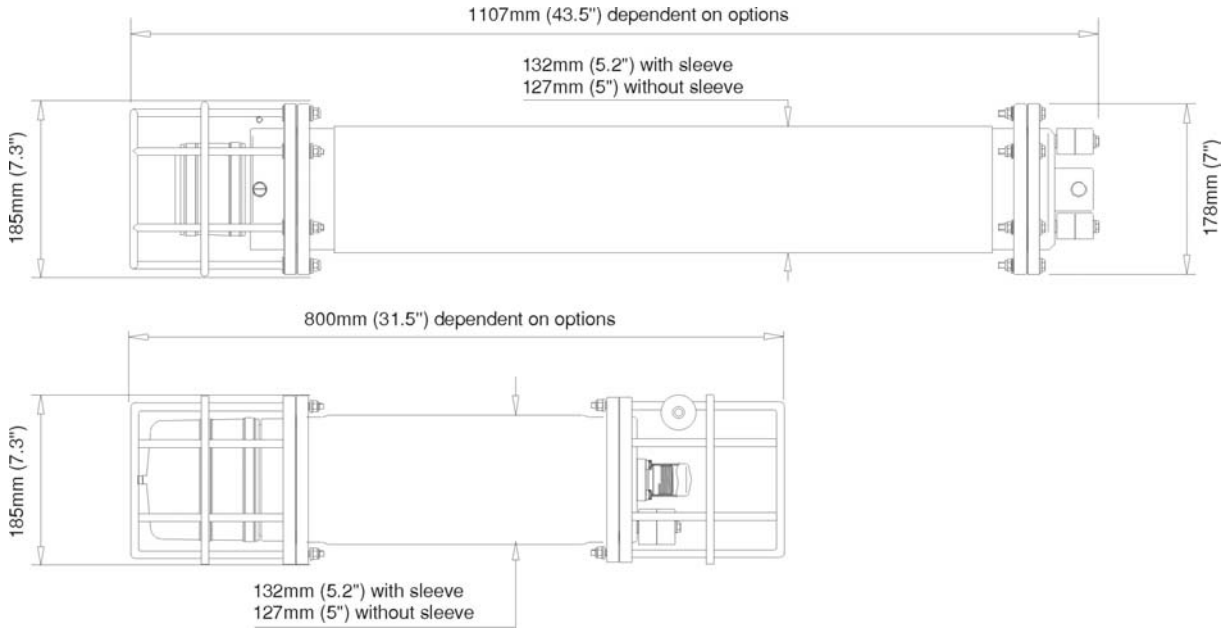
Specifications

Programmable Generic Transponder (PGT)



Feature	Type 7971	Type 7977	Type 7978
Depth Rating	2,500 Metres (4,000 Metre option available)	2,500 Metres (4,000 Metre option available)	2,500 Metres (4,000 & 6,000 Metre options available)
Operating Frequency Channels	HPR 300/400 Channels	HPR 300/400 Channels	HPR 300/400 Channels
Transducer Beamshape	Omni-Directional ±130°	Directional ±30°	Super-directional ±12°
Transmit Source Level (dB re 1µPa @1m)	192dB ±3dB	200dB ±3dB	206 ±3dB
Number of Transmission (High Power on Channel 33)	Alkaline:1.0 X 10 Lithium:2.3 X10	Alkaline: 0.8X10 Lithium: 1.8X10	Alkaline: 0.5X10 Lithium: 1.2X10
Receive Sensitivity	<85dB re 1µPa	<85dB re 1µPa	<85dB re 1µPa
Listening Life (Days)	Alkaline: 3.7 years, Lithium: 6.1 years	Alkaline: 3.7 years, Lithium: 6.1 years	Alkaline: 3.7 years, Lithium: 6.1 years
Mechanical Construction	Aluminium Alloy, Hard Anodised	Aluminium Alloy, Hard Anodised	Aluminium Alloy, Hard Anodised
Dimensions (LxDia)	1107mm X 183mm	1107mm X 183mm	1107mm X 183mm
Weight in Air	22kg	22kg	22kg
Weight in Water	9kg	9kg	9kg
Features	Pressure relief safety valve, External channel selection control External On/Off control, High/Low Transmit power set via RS232 port (if fitted)		
Options	Alkaline or Lithium Short (no battery) or Long housing Responder/Charging/comms connector (Bulkhead Connector 5 pin McCartney MC BH5M) Screw-off' acoustic release mechanism Depth sensor (2,000m, 4,000m or 6,000m options)		