

Oceano MT9x2-OEM

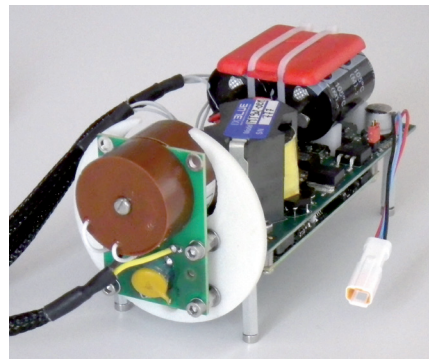
Medium Frequency - Miniature transponder

The MT9x2-OEM transponder/responder assembly is dedicated to customized applications when the use of a standalone MT912S/MT932S beacon is not possible.

MT9x2-OEM configuration must be installed in the watertight housing of a third party instrument or a subsea vehicle and hooked to Medium Frequency (MF) acoustic head such as PET132E, PET862E or even PET962S.

As for standalone MT912S/MT932S series beacons, MT9x2-OEM assembly is primarily designed for use with GAPS USBL underwater positioning system to track AUVs, ROVs, tow fish and other subsea targets.

Compact MT9x2-OEM configuration uses iXblue wide spectrum M-FSK technology. The MT9x2-OEM assembly can be interrogated by acoustic link through water (transponder mode) or by electrical triggering via a cable (responder mode). It must be powered from an external supply.



FEATURES

- Fully compatible with Gaps USBL system
- Free of export good
- Medium frequency M-FSK chirp transmit signals
- Field selectable transmit sound power level (188 dB default, 191 dB or 185 dB)
- To be associated with an omni-directional acoustic head
- Acoustic interrogate channel filed selectable among 4 tonal frequencies
- Transponder and responder operating modes
- Responder mode reverts automatically to transponder mode after 25 seconds delay
- Full configuration and set-up via serial port by PC-windows™ based MMI software
- External power supply (12-30Vdc, 20 W required).

OPTIONS

- Several models of remote acoustic transducer available
- 1 000 m or 3 000 m depth housing
- Provisions for pressure sensor.

APPLICATIONS

- ROV tracking
- AUV tracking
- Tow fish USBL tracking.

TECHNICAL SPECIFICATIONS

General

Ordering part number	KAA00687
Assembly drawing number	4453900
Operating temperature	-5°C to +40°C
Storage temperature	-20°C to +50°C
Shipping	ABS plastic cabinet, 464 x 366 x 176 mm, 4 kg

Mechanical

Overall dimensions (L x H x W)	155 x 72 x 71 mm
Weight	0.6 kg

Electrical

External power supply	12-30 Vdc, 20 W required
Receiving channels	1 tonal channel, field selectable among 4 (19.5, 20, 20.5 and 21 kHz)
Transmit frequency band	21.7 to 30.3 kHz 12M-FSK wide-spectrum codes, 10 ms width
Transmit source level	188 ± 4 dB ref. 1µPa @ 1 m (default) 191 dB or 185 dB level field selectable
I/O ports	Responder trigger/RS232c serial link/external power supply

Transducer

Model	PET132E	PET862E	PET962S
Ordering part number	KAA01174	KAA00176	KAA00178
Drawing number	9400061	9400055	9400067
Body material	Anodized aluminum	Anodized aluminum	Stainless steel
Diameter	58 mm	70 mm	91 mm
Height	49 mm	97 mm (with connector)	118 mm (with connector)
Weight (air/water)	0.23/0.15 kg	0.32/0.16 kg	1.06/0.8 kg
Maximum depth	3 000 m	6 000 m	6 000 m
Electrical I/O	Open rear part with pigtail cable	Subconn MCBH4F	Subconn MCBH3M
OCV (Sh)		-193 ± 3 dB ref. 1V / 1µPa @ 20 kHz	
TVR (Sv)		-131 dB ref. 1µPa / 1 V @ 1 m @ 26 kHz	
Directivity diagram		hemispherical	