



KONGSBERG

cNODE MiniS 3X



cNODE MiniS Transponder

Kongsberg Maritime's cNODE® MiniS Transponder has an impressive range of features, including 560+ Cymbal digital acoustic channels and FSK B channels.

The transponder is available with pressure rated housings of 4000 m and 7000 m and different transducer options.

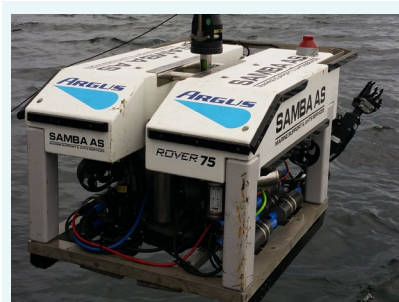
The cNODE MiniS Transponders are ideal for positioning a WROV or Towfish in SSBL mode. For noisy vehicles or for faster position update rates responder mode is available. The internal tilt sensor data can be transmitted on the back of the navigation reply without need for additional telemetry to provide both position and attitude of tracked targets simultaneously.

The cNODE MiniS has full LBL capability, can be used to measure baselines, used as part of an LBL array or tracked as an LBL target transponder.

The Transponder can be configured by RS232 line or by acoustic telemetry and the unit is fully compatible with HiPAP®, µPAP® and cPAP® medium-frequency underwater positioning systems for precise ranging and positioning utilizing Cymbal acoustic wideband protocol.

cNODE® MiniS 3x has a compact housing for the transponder electronics which can be powered both by the internal rechargeable battery or an external 24 VDC power supply.

- 500+ Cymbal Wideband channels
- Full telemetry
- SSBL and LBL ranging
- Fast Track
- Responder mode
- Rechargeable battery Li-Ion
- External power supply
- Works with HiPAP, µPAP and cPAP
- 4000 m/7000 m depth rating
- RS232 Comms to setup and change channel





TRANSPONDER INFORMATION

cNODE transponder model	MiniS 34-180	MiniS 34-40V	MiniS 37-40V Ti
Transducer beam pattern			
Beam coverage	180° vertical	40° vertical	40° vertical
Maximum source level (re 1µPa)	188 dB	203 dB	203 dB
Trigger level	<85 dB	<80 dB	<80 dB
Range capability (m) *)	3000+	5000+	5000+
Length x diameter (mm)	306 x 106	321 x 105	321 x 105
Weight in air/water (kg)	4.3 / 2.1	4.6 / 2.1	6.5 / 4.0
Depth rating (m)	4000	4000	7000
Part number	396588	396590	438678

*) Range capability is depending on line of sight, transponder's transmit power setting, vessel's acoustic system and influence of ambient noise and ray bending.

TECHNICAL DATA cNODE MiniS 3x

Frequency	20-30 kHz (MF)
Signal type	Cymbal wideband and FSK
Responder and beacon mode	Yes
Range accuracy	Better than 0.02 m
Depth rating	4000 m (Alu) / 7000 m (Ti)
External power supply	24 VDC/1 A
Subsea connector	Seacon MCBH8M
Housing	Aluminium / Titanium

ACCESSORIES

Part no.	Item	Part no.	Item
442750	Floating collar 4000 m rated	436669	Transit case for 2x MiniS
439442	Transducer guard	458541	TTC test unit
404199	Battery charger		