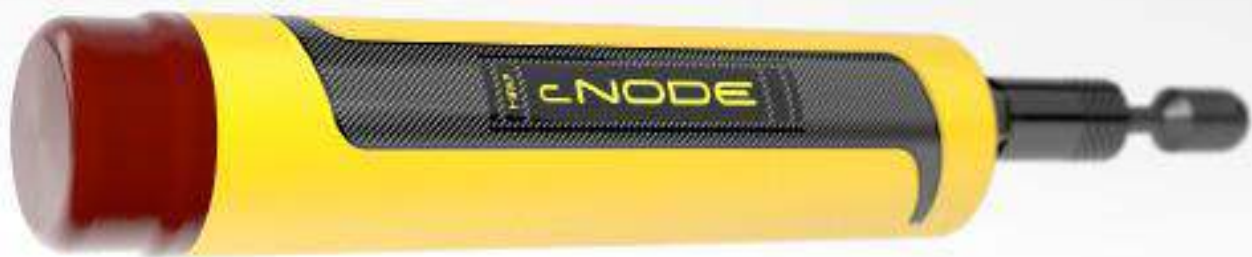


# cNODE<sup>®</sup> MICRO



KONGSBERG



January 2018

## cNODE<sup>®</sup> MICRO 31-180

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The cNODE<sup>®</sup> Micro transponder is rated to 600 metres and is small and light enough to be used by divers and shallow water ROV's. Operating on Kongsberg Cymbal digital acoustic protocols, the cNODE<sup>®</sup> Micro provides the optimal positioning performance with the Kongsberg range of SSBL systems, from  $\mu$ PAP<sup>®</sup> through to HiPAP<sup>®</sup>.

The cNODE<sup>®</sup> Micro is extremely flexible featuring Cymbal digital telemetry and both SSBL & Long Baseline positioning capabilities. With range accuracies of better than 2 cm achievable, measured baselines between transponders on the seabed provide capabilities for simple diver metrology or archeology.

The telemetry capability allows the battery status to be read during operation and the integrated tilt sensor can be turned on and off with positioning updates. Multiple cNODE<sup>®</sup> Micro transponders can be interrogated simultaneously in SSBL positioning mode using the  $\mu$ PAP<sup>®</sup> and HiPAP<sup>®</sup> Fast track feature to ensure the fastest possible updates during operation.

Some common features of the cNODE<sup>®</sup> Micro include:

- Cymbal channels (500+)
- Acoustic telemetry for battery status and tilt sensor
- Responder and transponder functionalities
- SSBL positioning
- LBL positioning
- Range measurements between transponders
- 600 metre depth rated
- 180° omnidirectional beam
- Coated Anodised aluminium housing
- Internal rechargeable Li-Ion battery
- External connector for configuration, software update and charging
- External on/off function
- Internal tilt sensor  $\pm 90^\circ$
- Pressure relief valve (safety device)
- Frequency band 21-31 kHz
- Operating temperature  $-5^\circ\text{C}$  to  $+55^\circ\text{C}$

# TECHNICAL SPECIFICATION

KM ITEM NUMBER	424770
DIMENSIONS (Length X Diameter)	245 x 55 mm
WEIGHT IN AIR/WATER	1 kg/0.4 kg
DEPTH RATING	600 m
BEAM WIDTH	180°
SOURCE LEVEL - MAX	170 dB
TRIGGER LEVEL	< 85 dB

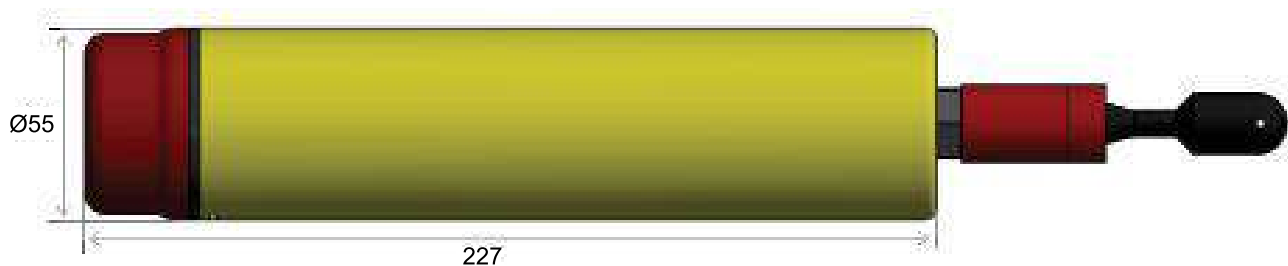
## OPERATING BATTERY LIFETIME

QUIESCENT BATTERY LIFETIME	< 10 days
CYMBAL® (Low power, 1 sec update rate)	< 48 hours

## OTHER SPECIFICATIONS

RESPONDER TRIGGER SIGNAL	5V to 25V positive logic pulse (2ms - 6ms)
EXTERNAL CONNECTOR	Seacon MC-IL-8-F (cNODE MiniS compatible)
BATTERY CHARGER INPUT VOLTAGE	110/230 VAC

Outline drawing for the  
cNODE® Micro 31-180 transponder



Specifications subject to change without any further notice.

424983/Rev B/January 2018