cNODE® Transponders
Maxi 31 Exd

KONGSBERG

Introduction

cNODE® is a family of transponders for underwater acoustic positioning and data link, and operates with both HiPAP®, HPR and cPAP® transceivers. The cNODE® transponders operates with either the HiPAP®/HPR 400 channels and telemetry or with the new Cymbal acoustic protocol.

The cNODE Maxi 31 Exd transponders are made especially for operating in an explosive atmosphere. Two models are available:

- cNODE Maxi 31-80V-90-Exd
- cNODE Maxi 31-80V-Exd

The cNODE Maxi 31 Exd transponders comply with the following standards:

- IEC/EX 60079-1:2007
- IEC 60079-0:2011
- IEC 60086-1
- EN 60079-0:2012

cNODE® Maxi 31-80V-90-Exd

cNODE® Maxi 31-80V-Exd

Technical specifications

Materials

Bolts and tube:.....Super Duplex stainless steel
Transducer, top end cap and bottom end cap:.....Titanium grade 5

Performance specifications

Operation depth:.....1000 m
Operating frequency:.....21 kHz to 31 kHz
Communication principle:.....Phase Shift Keying (Cymbal) and Frequency Shift Keying (FSK)
Transducer beam width:.....80° at -3 dB
Frequency band:.....Medium frequency (MF)
Source level:.....198 dB
Receiver sensitivity:.....85 dB

Weight and outline dimensions

cNODE Maxi 31-80V-90-Exd

Width:.....164 mm
Height:.....874 mm
Weight in air:.....35.5 kg
Weight in water:.....25 kg

cNODE Maxi 31-80V-Exd

Width:.....139.5 mm
Height:.....880 mm
Weight in air:.....35.5 kg
Weight in water:.....25 kg

Power specifications

Battery type:....Non-rechargeable Lithium metal, (Li/SOC_2)
Operating voltage:.....10 to 14.4 VDC
Battery output:.....14.4 VDC
Total battery energy content:.....128 Ah
Cells per battery:.....48
Type of cells:.....Lithium
Power consumption (peak operation):.....250 W
Power consumption average:.....3.6 W
(Presumed High Tx power and ping rate 1 sec.)

Environmental specifications

Operation temperature:.....-5°C to +55°C
Storage temperature:.....-30°C to +70°C

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