



KONGSBERG

CPAP® MK II

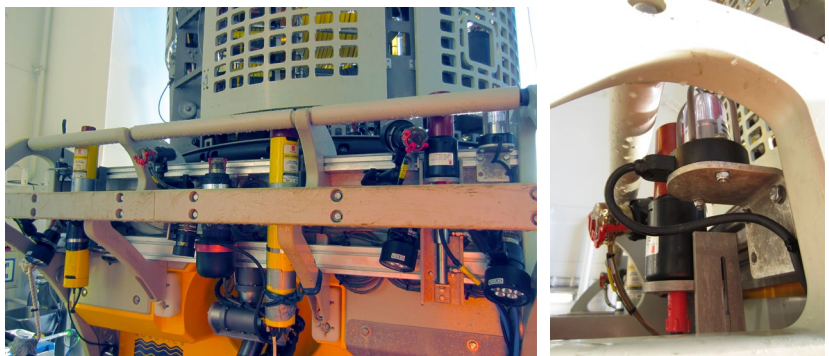


- 560+ Cymbal Wideband Channels
- LBL positioning and Sparse LBL ranging
- Telemetry
- External power supply (24 VDC)
- Choice of transducers
- Internal backup battery
- User control interface
- Depth rating of 4000 m and 6000 m

cPAP® MK II subsea transceiver

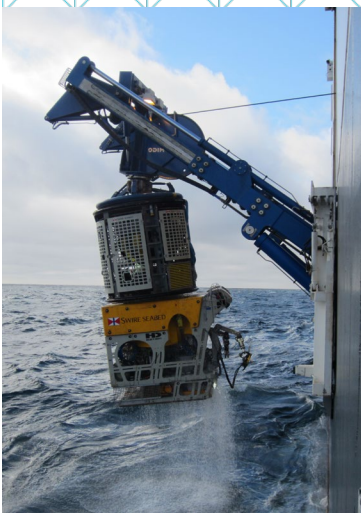
The cPAP® MK II is designed for positioning of an ROV or other underwater tethered vehicles within a subsea long baseline (LBL) or Sparse LBL array of cNODE transponders. Kongsberg Cymbal wideband acoustic protocol provides centimetric precision ranges and high data rates for telemetry.

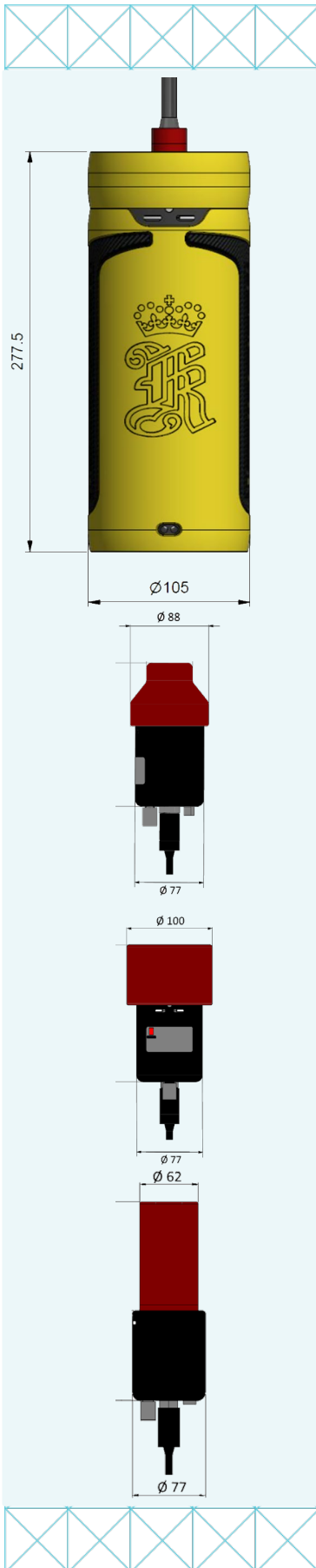
The unit contains a rechargeable battery pack, reducing the peak current drawn from the external power supply and serves as an uninterruptable power supply for the transceiver in case the external voltage is disrupted.



Navigation software APOS provides full LBL functionality for array calibration, navigation and control of the cPAP MK II. To provide flexibility for customized solutions a dedicated port can be used for NMEA commands, which means 3rd party software can control the transceiver and ranging to cNODE Transponders.

The 6000 m rated cPAP MK II is made from titanium, while the remote transducers are made from stainless steel. For the corresponding 4000 m versions they are all made from aluminum.





TECHNICAL DATA cPAP MK II

| | | |
|--------------------------|-------------------------|------------|
| Frequency | 20-30 kHz (MF) | |
| Signal type | Cymbal wideband and FSK | |
| Range accuracy | Better than 0.02 m | |
| APOS Interface | RS232 | |
| External power supply | 24 VDC / 1 A | |
| Depth rating | 4000 m | 6000 m |
| Housing | Aluminium | Titanium |
| Length x diameter (mm) | 279 x Ø 79 | 279 x Ø 79 |
| Weight in air/water (kg) | 4.2 / 2.2 | 5.8 / 3.8 |
| Operating temperature | -5 °C to + 55 °C | |

TRANSDUCER INFORMATION

| Transducer model | TDR180 | TDR40V | TDR30H |
|-----------------------------------|------------------|------------------------|------------------------|
| Transducer beam pattern | | | |
| Beam coverage | 180° vertical | 40° vertical | 30° horizontal |
| Maximum source level (re 1µPa) | 188 dB | 203 dB | 188 dB |
| Length x diameter (mm) | 4000 m 6000 m | 160 x 88 160.5x 88 | 161 x 100 161 x 100 |
| Weight in air/water (kg) | 4000 m 6000 m | 1.7 / 1.0 4.2 / 3.5 | 2.3 / 1.3 5.1 / 4.1 |
| | | | 1.5 / 0.8 3.4 / 2.8 |

ORDER INFORMATION

| Part no. | | Item |
|------------|--------------|------------------------------------|
| 4000 m Alu | 6000 m St/Ti | |
| 447900 | 475554 | cPAP MK II subsea transceiver |
| 349742 | 375361 | TDR180 remote transducer |
| 349743 | 375360 | TDR40V remote transducer |
| 345773 | 375359 | TDR30H remote transducer |
| 345772 | 345772 | 6 m transducer cable |
| 408094 | 408094 | ROV interface cable, pigtail 60 cm |