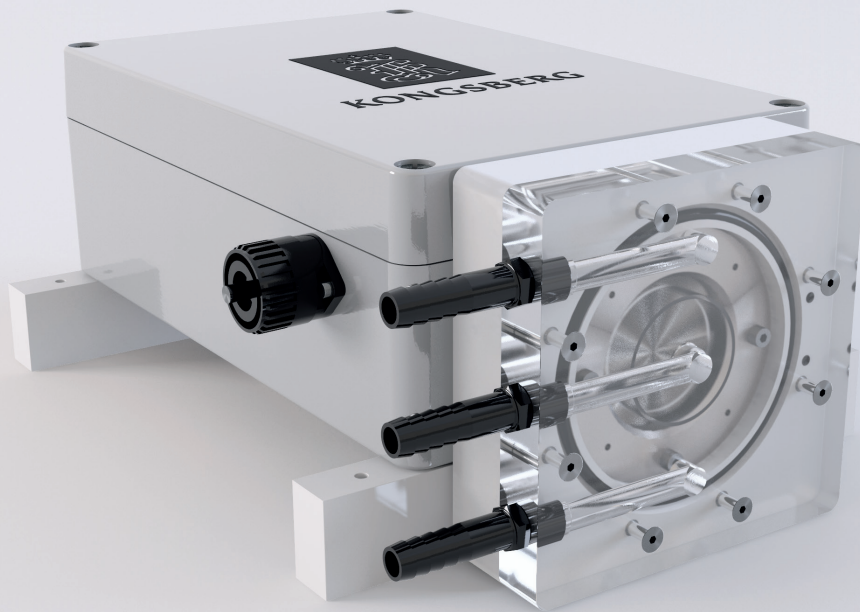


# CONTROS HydroC CO<sub>2</sub> FT



KONGSBERG



## ACCURATE, FAST AND VERSATILE $p\text{CO}_2$ FLOW-THROUGH SENSOR

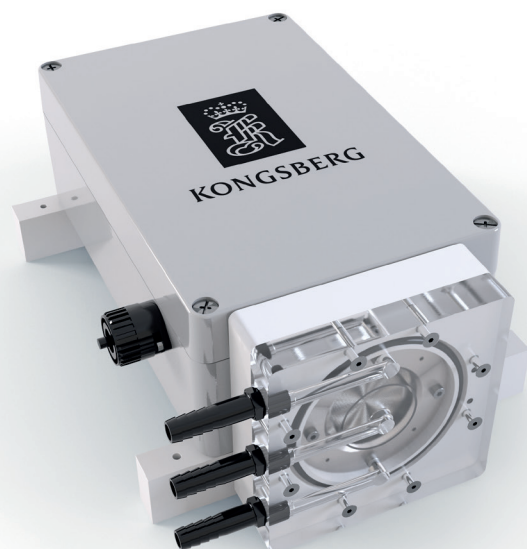
The CONTROS HydroC<sup>®</sup> CO<sub>2</sub> FT is a unique surface water carbon dioxide partial pressure sensor designed for underway (FerryBox) and lab applications. Fields of application include: ocean acidification research, climate studies, air-sea gas exchange, limnology, fresh water control, aquaculture/fish farming, carbon capture and storage - monitoring, measurement and verification (CCS-MMV).

### Individual 'in-situ' calibration

All sensors are individually calibrated using a water tank which simulates the deployment temperature. A proven reference flow through system is used to verify the CO<sub>2</sub> partial pressures in the calibration tank. High quality standard gases are used to calibrate the reference system before and after every sensor calibration. This process ensures that the CONTROS HydroC<sup>®</sup> CO<sub>2</sub> sensors achieve excellent short and long term accuracy.

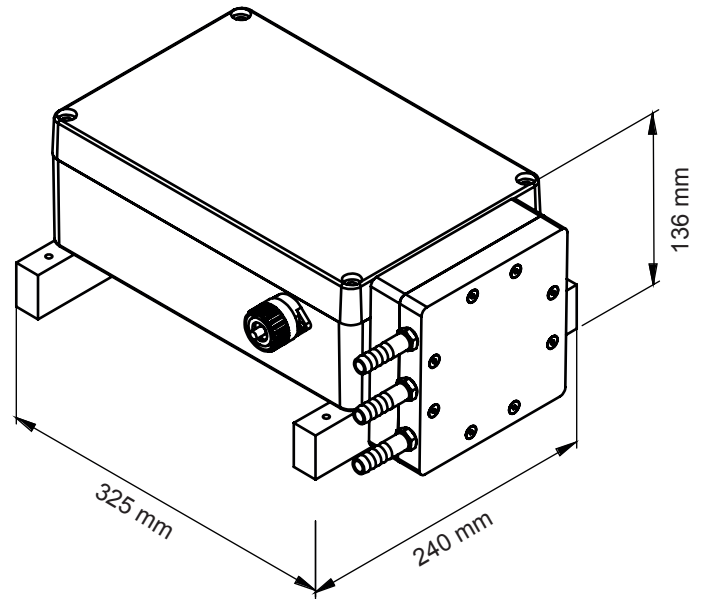
### Operating principle

Water is pumped through the flow head of the CONTROS HydroC<sup>®</sup> CO<sub>2</sub> FT sensor. Dissolved gases diffuse through a custom made thin film composite membrane into the internal gas circuit leading to a detector chamber, where the partial pressure of CO<sub>2</sub> is determined by means of IR absorption spectrometry. Concentration dependent IR light intensities are converted into the output signal from calibration coefficients stored in firmware and data from additional sensors within the gas circuit.



## FEATURES

- High accuracy
- Fast response time
- User-friendly
- Long-term maintenance interval of 12 months
- Long-term deployment capability
- 'Plug & Play' principle; all required cables, connectors and software are included
- The CONTROS HydroC® technology has a track record in peer-reviewed scientific publications



## TECHNICAL SPECIFICATIONS

### CONTROS HydroC CO<sub>2</sub> FT

- Detector High-precision optical analyzing NDIR system
- Measuring range 200 – 1,000 µatm (other ranges available)
- Weight 5.3 kg
- Flow rate 2 to 15 l/min (recommended 5 l/min)
- Dimensions 325 x 240 x 136 mm
- Temperature range 1°C to 30°C
- Resolution < 1 µatm
- Initial accuracy ± 0.5 % of reading
- Connector Hirschmann-plug CA6LD (other connectors on request)
- Supply Voltage 11 V - 24 V
- Power Consumption Approx. 350 mA @ 12 V
- Data interface RS-232C
- Data format ASCII

### SOFTWARE

CONTROS DETECT® incl. real-time data visualization, setting of sensor parameters, download data from internal data logger and sleep mode function

### HARDWARE REQUIREMENTS

Win 7 32 Bit, 200 MB free disk space, Dual Core CPU with 2GB RAM

### OPTIONS

- Measuring range up to 6,000 µatm
- Data logger
- Easy integration into FerryBox applications

Specifications subject to change without any further notice.

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