

Mini CH₄TM

Features

- Compact size
- Low power consumption
- Easy integration
- Multiple data output formats available
- Large selection of concentration ranges
- Optional internal or external battery power
- Digital option comes with internal data logger and controller with 2GB flash memory

pCH₄ Sensor Applications

- Determining background levels of dissolved methane prior to hydrofracturing
- Groundwater and wellwater monitoring
- Offshore oil and gas leak detection
- Wastewater greenhouse gas emissions
- Landfill leachate methane monitoring
- Greenhouse gas emissions from dam reservoir water supplies
- Methane hydrate studies
- Measurement of pCH₄ in fermentation bioreactors

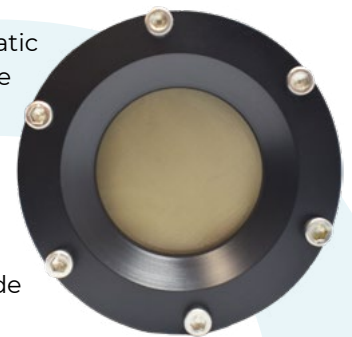
Mini CH₄TM Submersible pCH₄ Sensor

The Mini CH₄TM instrument uses infrared detection to measure the partial pressure of CH₄ gas dissolved in liquids. Conversion to dissolved methane concentration is simple with known temperature and salinity values.

Mini CH₄TM submersible instruments are compact, lightweight, plug and play sensors designed to measure pCH₄ for a range of applications. The instrument also measures total dissolved gas pressure (TDGP), a useful parameter for many applications and data correction.

With housing options rated to 6000 dbar of hydrostatic pressure and resistance to most corrosive liquids, the Mini CH₄ can provide reliable dissolved methane data for many applications. Flow-through and in-line adapters are also available for simple industrial solutions.

For specialized applications, Pro-Oceanus can provide custom products to suit any need.



PRO Stability in a sea of change.
OCEANUS

Mini CH₄TM

Sensor Specifications

Sensor Performance

pCH₄ Measurement Ranges 0-1% CH₄; by volume
(~0-300 µg/L; by mass)
0-10%v/v (~0-3 mg/L)
0-100%v/v (~0-30 mg/L)

Total Dissolved Gas Pressure 0-2 bar

Accuracy:

pCH₄ ± 3% of max range

TDGP ± 1%

Equilibration rate (t₆₃) 8 minutes (with water-pumped head)

Resolution 0.1% of max range

Physical

Length 28 cm (11 in)

Diameter 5.3 cm (2.1 in)

Weight Air 0.53 kg (2.2 lbs)
Water: -0.06 kg (-0.1 lbs)

Housing Material Acetal Plastic / Titanium

Depth Rating 0 - 600 m (Plastic)
Up to 6000 m (Titanium)

Water Temperature 0° to 40° C

Electrical

Input voltage digital: 7-24 VDC
analog: 12-24 VDC

Power consumption 85 mW (7 mA @ 12 V)

Data output digital: RS-232, ASCII CSV
analog: 0-5 V or 4-20mA

Sample rate 2 seconds (variable rate with logger/controller)

Optional Accessories

Titanium Housings

Rated up to 6000 m depth

Internal battery power

External battery packs

19, 76 or 134 Amp-hour capacity

Water-pumped head

Reduce biofouling and improve response rate

Mooring cage or frame with instrument brackets

Pigtail Cables with Locking Sleeves

5, 10, 25, 50 meters, or longer



Water-Pumped Head Accessory



Pigtail Cable with Locking Sleeve



Copper Antifouling Shield



Instrument and Battery Mooring Bracket

