

Mini CH₄TM

Features

- Compact size
- Low power consumption
- Easy integration
- Multiple data output formats available
- Optional internal datalogger
- 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

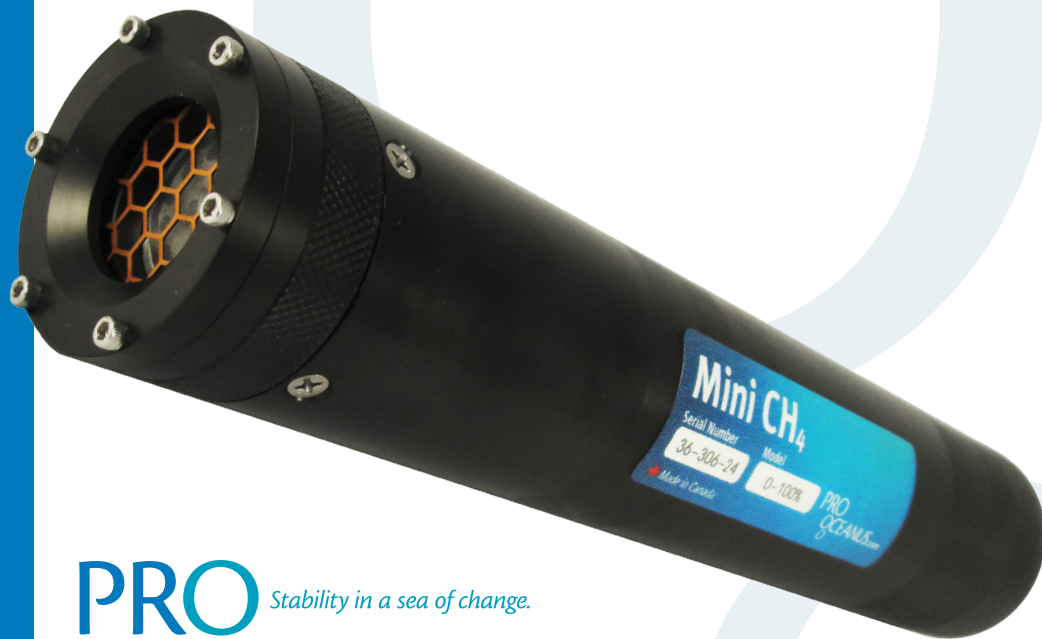
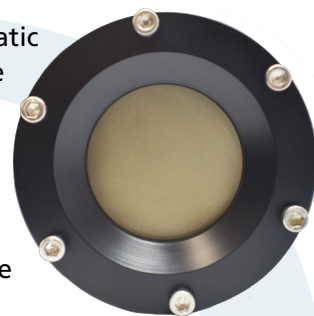
Mini CH₄ Submersible pCH₄ Sensor

The Mini CH₄ 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 CH₄ 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% CH ₄ ; 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	0-2000 mbar
Accuracy: pCH₄	± 2% 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	5.1 cm (2 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 0 - 6000 m (Titanium)
Water Temperature	-2° to 40° C

Electrical

Input voltage	digital: 5-30 VDC analog: 12-24 VDC
Power consumption	0.45 W (35 mA @ 12 V)
Data output	digital: RS-232, ASCII format analog: 0-5 V or 4-20 mA
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

76 or 134 Amp-hour capacity

Water-pumped head

Reduce biofouling and improve response rate

Mooring frame with instrument brackets

Mooring cage with instrument brackets

Pigtail Cables with Locking Sleeves

5, 10, 25, 50 meters, or longer



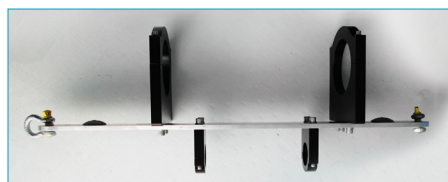
Water-Pumped Head Accessory



Pigtail Cable with Locking Sleeve



Copper Antifouling Head



Instrument and Battery Mooring Bracket

