



SWALE OCEANOGRAPHIC

Mini-Pro CH₄ Submersible pCH₄ Sensor

For partial pressure measurement of dissolved Methane.



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

Mini-Pro 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 submersible options rated from 300-4000 dBar pressure, and resistant to most corrosive liquids, the Mini-Pro CH₄ can provide reliable methane data for many applications. Flow-through and in-line adapters are also available for simple industrial solutions.

Features

- Low power consumption
- Easy integration
- Multiple data output formats available
- Optional data logger (>1 year of data storage)
- Large selection of concentration ranges
- Optional internal or external battery power

Applications

- Groundwater and well-water monitoring
- Offshore oil and gas leak detection
- Wastewater greenhouse gas emissions
- Landfill leachate methane monitoring
- Methane hydrate studies
- Measurement of pCH₄ in fermentation bioreactors
- Background levels of pCH₄ prior to hydro-fracking
- Greenhouse gas emissions from reservoirs

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|----------------------------------|------------|-----------------------|---------------------|
| pCH ₄ Concentration | Resolution | Length | 280mm |
| 0-1% CH ₄ ; by volume | 0.01% | Diameter | 50mm |
| (~0-300 µg/L; by mass) | | Weight (air / water) | 1.0kg / 0.25kg |
| 0-10 % (~0-3 mg/L) | 0.01% | Depth (Delrin*) | 300m |
| 0-100 % (~0-30 mg/L) | 0.1% | Operational Temp | -2 – +50 °C |
| TDGP | 0 – 3 Bar | Input Voltage | 6 – 12 Vdc |
| Accuracy: pCH ₄ | ± 2% FS | Power consumption | 100mA (120mA max) |
| TDGP | ± 1% FS | Data Output Analog | 0 – 5 V or 4 – 20mA |
| Equilibration rate (t63) | 6 minutes | Digital | RS-232 or RS-485 |
| | | Sample Rate | 1 Sec * |

*Options:

Data logger and controller, complete with 2 GB flash memory and terminal program for self-contained measurement and logging, with variable sampling rate (Required for digital output.)

Titanium Housing for depths to 4000m / Internal batteries / External power / Water pumped Head

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