

# OceanXpert-Sea IR-CH4

## Precise subsea CH<sub>4</sub> Analyzer



- ▶ Cost-effective sensor for leak detection
- ▶ Precise NDIR dual-wavelength sensor
- ▶ Low maintenance – low follow up costs
- ▶ Robust construction
- ▶ Corrosion-free
- ▶ Low power
- ▶ Snaps into industrial PLC
- ▶ Integrated Datalogger
- ▶ Expandable

- ✓ ROV or AUV integration
- ✓ Shallow water or deep sea
- ✓ Water quality control

- ✓ Monitoring e.g. Offshore Oil+Gas / CCS
- ✓ Environmental monitoring
- ✓ Long-time deployments

### Features & Benefits:

- Robust, versatile and compact submersible housing for buoy and marine applications
- Complete, portable and easy to maintain. Easy handling and intuitive design
- Extensive temperature and pressure compensation. Optional external gas tanks for auto calibration
- Flat membrane equilibrator with anti-fouling protection for long-time deployments
- Internal data logger allows easy integration of additional sensors: CTD/TSG, Oxygen, Fluorometer, Turbidity, Nutrient Analysers, pH, etc.
- Optional alarm outputs for configurable threshold concentrations
- Complete solution "Ready to Run" with cables, clamps, etc.
- Optional high-reliability production IPC-A-610 class 3
- Optional GPS georeferences for all data and position event control
- Optional online telemetry data transfer and alarm services
- Optional external or internal Li-Ion PowerPack



## Specifications

<b>Sensor Principle</b>	High performance NDIR dual-wavelength optical sensor • Silicone flat membrane equilibrator
<b>Range</b>	0..1%, 0..5%, 0..10%, 0..30%, 0..100%
<b>Resolution</b>	0.1 ppm CH <sub>4</sub>
<b>Accuracy</b>	Auto-correction for pressure and temperature effects • ±2% Full-scale
<b>Sample Rate</b>	Output rate typ. 1 Hz with optional averaging • User configurable • Storage rate configurable
<b>Calibration</b>	Internally stored coefficients • User correction supported for Zero & Span
<b>Temperature</b>	Operating temperature range 0 to +40°C • Optional heater for -20 to +40°C
<b>Analogue Out</b>	Optional • 0...5V or 0...20mA / 4...20mA • Range can be adjusted
<b>Data Interface</b>	RS-232 (RS-485 optional) • simple ASCII NMEA-0183 • Easy integration into existing systems
<b>Data Storage</b>	Internal 8GB SD card • Storage capacity approx. 5 years (depending on sample rate)
<b>External Sensors</b>	GPS • CTD • Meteorological instrumentation • Oceanographic sensors
<b>Anti-fouling</b>	Flat membrane equilibrator with anti-fouling protection for long-time deployments
<b>Housing</b>	Shallow water (max. 50m): POM • 15 kg (2 kg in water) • Φ180mm x 527mm Deep sea (300m; up to 3000m possible): Titanium • 16 kg (4 kg in water) • Φ168mm x 527mm
<b>Power</b>	12...32 VDC • typ. 15 W (@20 °C) • Warming up max. 25 W • Optional Li-Ion PowerPack
<b>Accessories</b>	Li-Ion Batteries • External datalogger • External sensors or analyzers • Pump for faster equilibration time • Frames or lander available
<b>Service</b>	Recalibration & service recommended every 12 months • Membrane lifetime up to 10years

