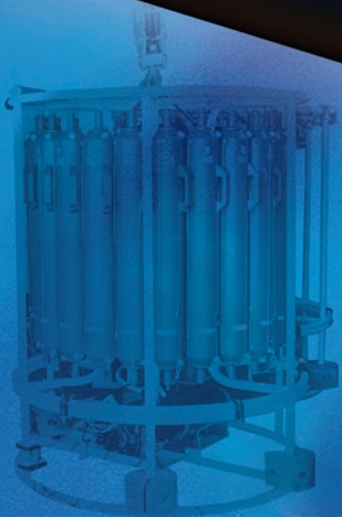


CONTROS SOPHISTICATED UNDERWATER GAS DETECTION

MADE IN GERMANY

HydroC™

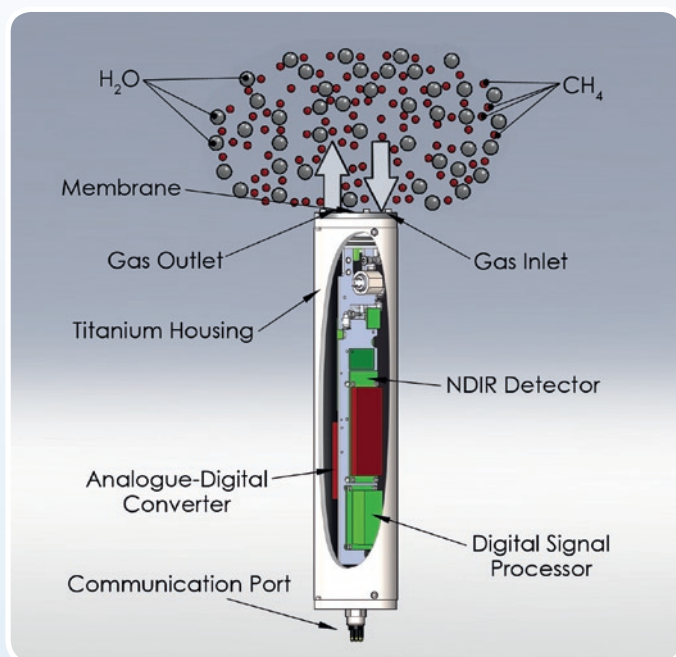
CH₄



THE OCEANOGRAPHIC METHANE SENSOR

- ✓ Climate Change Studies
- ✓ Limnology
- ✓ Methane Hydrate Studies
- ✓ Profiling / Moorings





Methane is one of the most important gases in our environment. Detecting sites of active methane seepage from the sediment and quantifying gas fluxes in the water column requires accurate online measurements in-situ.

CONTROS' HydroC™ is a unique underwater methane sensor solving the global problems of the in-situ and online measurements of CH₄.

Applications include Climate Change Studies, Limnology, Methane Hydrate Studies and Profiling / Moorings.

FUNCTION PRINCIPLE

Dissolved methane diffuses quickly from the liquid through a patented thinfilm composite membrane into the internal gas circuit.

Therein the CH₄ concentration is measured with high accuracy by non dispersive infrared spectrometry (NDIR).

ADVANTAGES

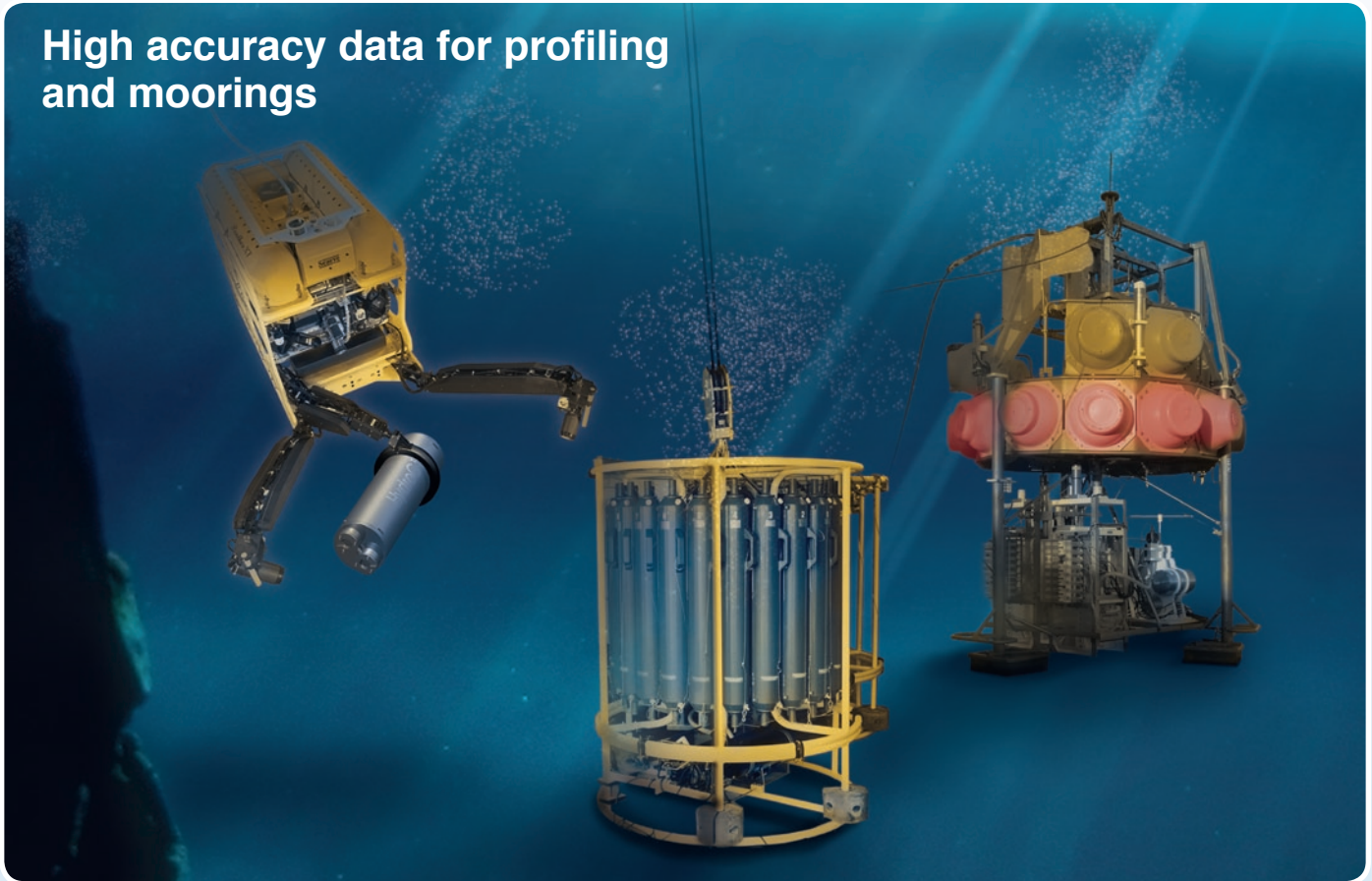
- ✓ The HydroC™ system detects dissolved CH₄ in the water column.
- ✓ The HydroC™ system features an optical technology with a proven track record.
- ✓ The HydroC™ system has a long-term stable signal and reproducible data.



TECHNICAL OUTLINE

Dimension/ Weight:	90 d x 526 mm corrosion-free titanium / 5,9 kg (2,6 kg in water)
Operation depth:	2.000, 4.000, 6.000 m version available
Temperature range:	from -4°C to +30°C
Measuring range:	100 nmol – 50 µmol/l (other ranges available)
Equilibration time:	first signal after 5s, T ₆₃ < 2min (with external pump)
Accuracy:	±3% reading (as the total sum of all the errors)
Data Interface:	RS-232C • Data format ASCII NMEA-0183
Power supply:	Typ. 12 VDC (11–24 VDC)
Options:	RS-485 • Analogue Output: 0 – 5/10 V (Range / Full-scale can be user-configured) • Internal or external data logger • external PowerPack (e.g. 36 Ah) • Build-in water temperature probe for concentration calculation • Ultra Sleep energy saving for long-term monitoring • ROV and AUV adaption packages • Profiling and mooring frames • HydroC™/ CH ₄ - FT flow - through sensor for underway (FerryBox) and lab applications • biofouling protection • external mounted pump with flow head for faster response time

High accuracy data for profiling and moorings



CONTROS' OFFER

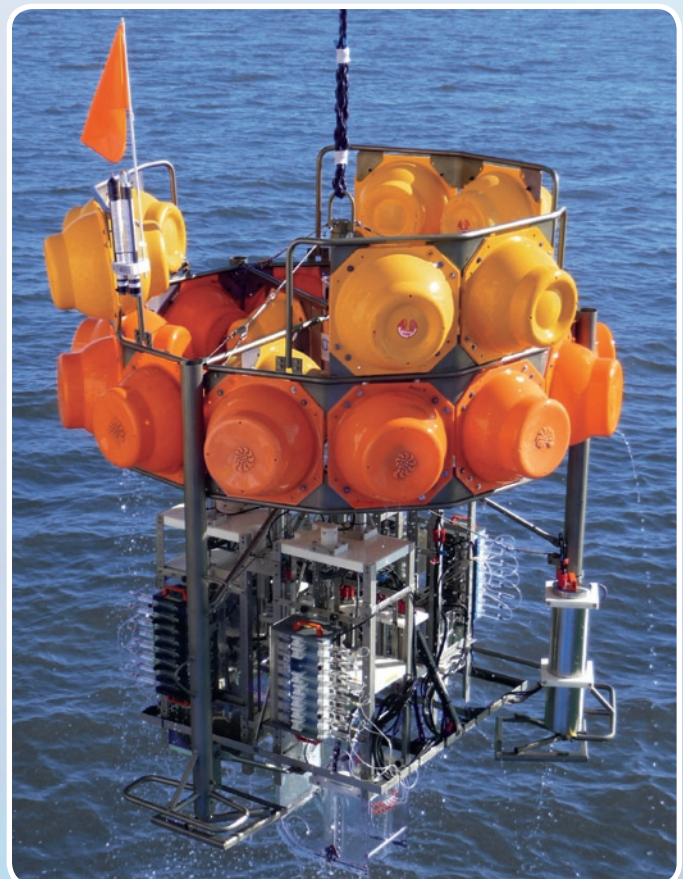
The key expertise of CONTROS is the development of subsea sensor systems for the detection of Hydrocarbons and CO₂. HydroC™ scientific product line, field experience and advanced data management systems meet the demanding requirements from research institutes worldwide.

PRODUCTS

- ✓ Sensor Systems
- ✓ PAH Systems
- ✓ MEG Systems
- ✓ Subsea Power Supplies
- ✓ Early Leak Detection Systems

SERVICES

- ✓ Instruction and Training
- ✓ Engineering Services
- ✓ International Project Management
- ✓ Offshore Oil & Gas Surveys
- ✓ Global presence and availability





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