methane sensor - METS

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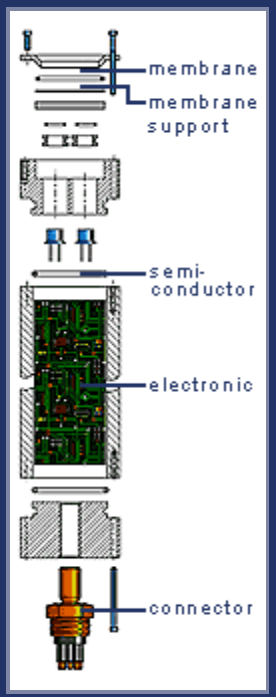

Methane is one of the most important gases in our environment. Indeed, in many areas of everyday life, the monitoring of methane is a necessity. The CAPSUMS`s METS is a unique underwater methane sensor solving the problems of the in-situ measuraments of CH4. Applications range from the treatment of sewage waters and landfill leachates to water quality monitoring, from biogas production to climate change studies and also includes many aspects of the offshore oil, gas and hydrate exploration activities (e.g. installation safety, environmental protection, exploration surveys).

Detector:	type: semi-conductor
Function principle:	The hydrocarbon molecules diffuse out of the liquid through a special silicone membrane into the detector room. The adsorption of hydrocarbon on the active layer leads to electron exchange with oxygen and thus to modification of the resistance, which the electronic transduces into a voltage.
Membrane:	
Standard:	10 µm silicone membrane
Optional:	10 to 100 µm silicone membrane with antifouling protection
Operational Ranges:	
Depth:	0-2000 m optional to 3,500 metres
Temperature:	typical 2-20 °C (other ranges on request)
Methane:	typical 50 nmol/l-10 µmol/l (other ranges on request)
Power Supply:	generally 9 - 36 VDC
Power consumption:	160 mA (switch-on peak 400 mA)
Output:	
Standard:	analog 0 - 5 V and digital RS-485
Options:	• RS - 232 (sensor output) • RS - 485/ RS - 232 (desktop converter) • 0 - 5 V/ 4-20 mA (desktop converter) (other outputs on request)
Specifications:	
Housing diameter:	49 mm
Length overall:	200 mm
Weight in air approx:	1,5 kg (titanium: 1,0 kg)
Housing material:	High-grade-steel or titanium
Connector:	MC BH 8M

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