



CONTROS™ Leak Detection System

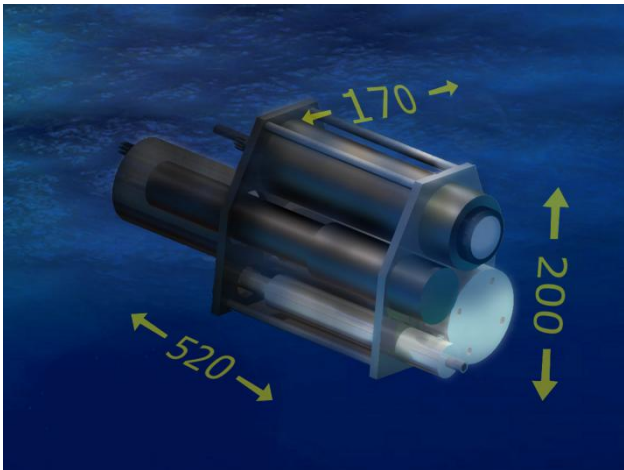


- Detect oil and gas pipeline leaks with a completely integrated system designed for ROV integration.
- Optional flow-through version with submersible pump for manipulator directed measurements.
- Wide variety of sensors as optional add-ons.
- Software with GIS package for integration into existing data acquisition systems.

1	Application	Detect oil and gas pipeline leaks
2	Operational depth	max. 2000 m
3	Temperature	4°C to 15°C
4	Measuring range	CH ₄ : 0,1 – 50 µmol/L ± 0.3 µmol/L PAH: 0 – 500 µg/L Temp: -4...+40 °C ± 0.1 °C Cond: 0 – 60 mS/cm ± 0.001 mS/cm Press: 0 – 4000 dbar ± 1 dbar
5	Reaction time	< 10 sec
6	Size	Standard configuration 520 x 170 x 200 mm ³
7	Weight	12.3 kg in air / 9.2 in sea water
8	Material	Titanium Grade 2 / Stainless Steel 1.4404
9	Pump	ENWAVE Deep Sea Pump, 3.3 L/min for configuration with pump
10	Power supply	12 / 24 VDC @ 18W (max. 35 W on start-up)
11	Connector	SUBCONN® MCBH8-M-TI 8-pin SUBCONN® MCBH5-F-TI 5-pin.
12	Digital Output	EIA-232, Data format ASCII NMEA-0183
13	Data Output	19200, 8 data bits, no parity, 1 stop bit. No flow control
14	Software	With DETECT™ Software Suite for graphical data visualization



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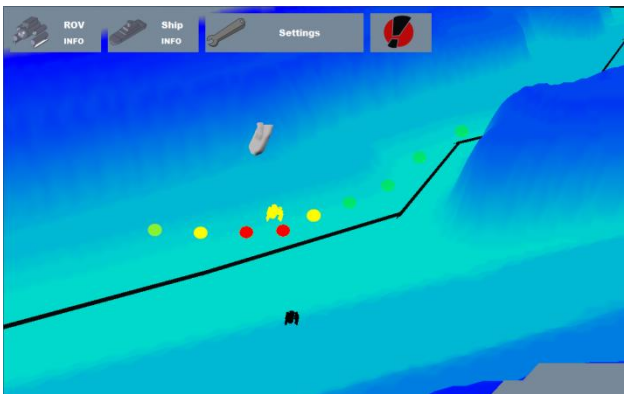


Integration

Fully integrates a broad variety of sensors for full coverage of any kind of anomalies:

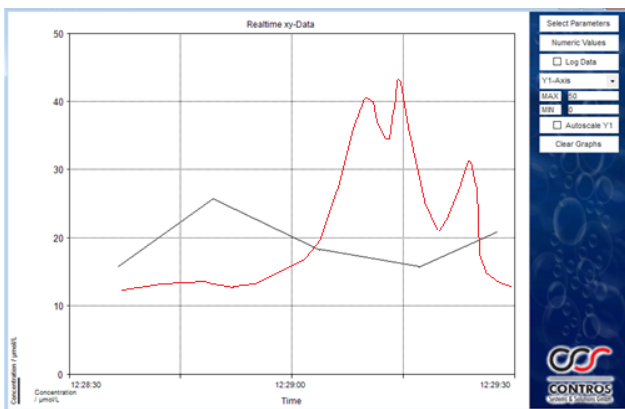
- HydroC™ LDS
- HydroC™ CH₄, PAH and CO₂
- CTDs (RBR, Seabird u.a.)
- Fluorometer
- Diss. Oxygene
- pH and Redox
- and more...

Designed for easy ROV integration



DETECT™ Software Suite

- Graphical display and interface to ROV Operator Display for easy location of leaks
- Shapefile Geo-Tiff and BSB im- and export (e.g. pipeline tracks, sea charts) for easy reporting and full compatibility
- Integrated Survey Planning and Simulation Tool for cost effective surveys
- Supports standard oceanographic sensors for full coverage of any kind of anomalies



Automated detection of any leaks (oil/gas) through graphical display and simplified status flags instead of complex multi graph display:

- Allows for easy location of anomalies even through trained technicians
- Raw data can be displayed as graphs for further qualification and quantification of anomaly and reporting