

CONTROS HydroC™ CH₄ FT



ACCURATE AND STABLE METHANE SENSOR FOR LONG-TERM DEPLOYMENT

Dependable methane measurement for both pumped stationary systems (e.g., monitoring stations) or ship based underway systems (e.g. FerryBox).

The CONTROS HydroC™ CH₄ FT is a unique surface methane partial pressure sensor designed for flow through applications.

HIGH ACCURACY AND STABILITY

Due to their narrow line-width, the Tunable Diode Laser Detectors used in the Contros HydroC™ CH₄ FT are accurate, with excellent methane molecule selectivity. Further, they feature a large dynamic range covering background partial pressures up to 40 matm. All detectors are subject to individual calibration and an in depth quality check in the -4H Jena QA lab before they are integrated into our sensors. The quality of the calibration is then verified individually in calibration tanks. The sensor is stable over extended periods as the detector tunes the laser to CH₄ absorbing and non-absorbing wavelengths for each measurement, thus compensating for potential drift influences.

OPERATING PRINCIPLE

Water is pumped through the CONTROS HydroC™ CH₄ sensor flow head and dissolved gases diffuse through the custom-made thin film TOUGH membrane into the internal gas circuit. This leads to a detection chamber where CH₄ concentration is determined by means of Tunable Diode Laser Absorption Spectroscopy (TDLAS). Concentration dependent laser light intensities and additional gas circuit data are converted into an actionable, reliable output signal.

SOFTWARE

CONTROS DETECT® incl. real time data visualization, setting of sensor parameters (e.g. measuring intervals, internal data logger settings, sleep mode function) supported by a mission planning tool and data download from internal logger.

HARDWARE

Windows 7 32 Bit or higher, 200 MB free disk space, Dual Core CPU with 2GB RAM.

OPTIONS

- Data logger
- Easy integration into FerryBox applications
- No DAC available for an FT

CONTROS HydroC™ CH₄ FT

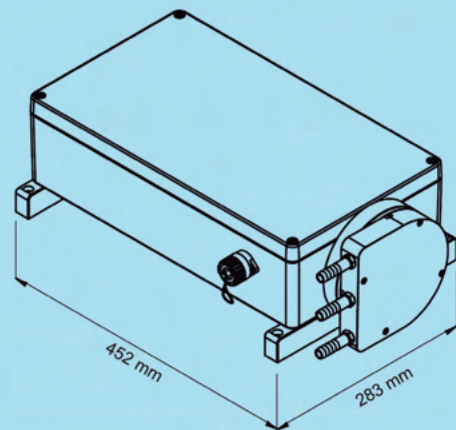
APPLICATIONS

The CONTROS HydroC™ CH₄ FT is trusted to deliver precise readings for diverse applications, including:

- Climate studies
- Methane hydrate studies
- Limnology
- Fresh water control

FEATURES

- New robust TOUGH membrane
- High accuracy and low detection limit of background concentration
- Large measuring range
- Optimal long-term stability
- Ideal methane selectivity
- Non-consuming CH₄ measurement
- Very robust
- User-friendly 'Plug & Play' principle; all required cables, connectors and software included



TECHNICAL SPECIFICATIONS

Detector	TDLAS -Tunable Diode Laser Absorption Spectroscopy	Flow rate ²	2 to 15 l/min
Measuring range	0- 40,000 µatm	Temp range	-2°C to +30°C
Detection limit	< 1 µatm	Supply voltage	12-30 V
Accuracy ¹	±2 µatm or ±3 %	Data interface	Only RS232 for FTs
Weight	8.5 kg	Data format	ASCII and NMEA protocol
Dimensions	452 x 283 x 142.5 mm	Connector ³	Hirschmann-plug CA6LD

1. Whichever is greater 2. Recommended 5l/min 3. Other connectors on request. Specifications subject to change without notice.

CONTACT -4H-JENA

Get in touch to find out how CONTROS HydroC™ CH₄ FT sensors can secure your ability to measure and report dependable methane data as part of your workflow.

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The CONTROS HydroC™ CH₄ FT enables climate researchers to contribute towards meeting the United Nations Sustainable Development Goals.



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