

ProCeas® NG / LNG contaminants

Accurate gas quality analysis at trace level

- Continuous measurement of critical contaminants - H₂S, H₂O, or CO₂
- Certified for Hazardous Areas ATEX zone 1 and 2, IECEx/ UKEX zone 1, Class I, Division 1, Groups B, C, D T6



PROCEAS® NG / LNG contaminants

Natural Gas (NG) and Liquefied Natural Gas (LNG) must meet stringent quality standards to ensure safety, efficiency, and compliance. The **ProCeas® NG / LNG Contaminants** analyzers provide unmatched accuracy in detecting H₂O, CO₂ or H₂S in methane streams, ensuring ultra-low trace measurements or high-range detection. Leveraging patented Optical Feedback Cavity Enhanced Absorption Spectroscopy (OFCEAS) technology, it offers a direct, continuous and interference-free analysis, making it ideal for process applications.

Designed for hazardous environments, it is available in ATEX or Class 1 Div 1 (D-UL) versions, ensuring compliance with global safety regulations. By providing real-time data, ProCeas® helps preventing process clogging, pipeline corrosion, protects LNG liquefaction processes, and ensure product quality, making it the trusted choice for critical gas analysis in the energy sector.

FEATURES

- Ultra-precise detection of H₂O or H₂S (trace or high concentrations)
- Patented OFCEAS® + LPS® technologies for no drift, interference-free measurement and long-term accuracy
- Various enclosures to fit your installation and process conditions
- Continuous, real-time operation for maximum reliability
- Hazardous area certifications:
 - ATEX II2G (Ex db IIB+H₂ T6 Gb)
 - IECEx (Ex db IIB+H₂ T6 Gb)

BENEFITS

- **Long-lasting accuracy:** On-line measurement, with no need for re-calibration or sensor replacement
- **Reduced operational costs and complexity:** Multi-point measurement, no zero gas or carrier gases required, easy to use with low maintenance
- **Helps protecting infrastructure:** Identifies contaminants in real-time enabling process adjustments that reduce maintenance costs for carbon beds, pipelines, turbines, etc.
- **Fast decision-making:** Real-time, accurate data supporting process control and gas quality assurance

Parameter	Standard range	LOD 3σ 60s
H ₂ S – High (ppm)	0 ... 2,000	< 0.1
H ₂ S – Low (ppm)	0 ... 500	< 0.03
H ₂ O – High (ppm)	0 ... 500	< 0.1
H ₂ O – Low (ppm)	0 ... 50	< 0.01
CO ₂ (%vol) (optional)	0 ... 20	0.03
CH ₄ (%vol) (indicative)*	0 ... 100	N/A
C ₂ H ₆ (%vol) (indicative)*	0 ... 20	N/A
Linearity: <1% of reading Repeatability: 3 x LOD or ± 0,5% relative *Repeatability: ±1 %		
Other parameters or ranges on request		

Measuring system	
Technology	Patented OFCEAS® (Optical Feedback Cavity Enhanced Absorption Spectroscopy) combined with LPS® (Low Pressure Sampling)
Power supply	110 ... 230 VA, 50 ... 60 Hz
Power consumption	150 VA max, 80 VA stabilized (per rack / wall mounted configuration)
Ambient conditions	Up to -10 ... +60°C / +14 ... +140°F
Protection class	IP66
Housing	Stainless Steel enclosure Dimensions: 600 x 510 x 347 mm (without purge controller). Approx. 80 kg
Sampling line	Depends on the process conditions and installation configuration. Recommended: standard, not heated line. Optional traced line, temperature maintained at max 80 °C
Sample flow rate	>2.400 sccm (min)
Sampling	Process connection: 1/4" Stainless Steel Sampling probe: consisting of sample filter and sonic nozzle. Material: Inconel 600
Communication interfaces	• USB ports • Modbus TCP/IP, RS232, RS485 (RJ45), VGA. • Remote access via Ethernet • Analog I/O optional