

# LaserCEM®

## Multicomponent gas analyzer

- QAL1 – certified according to EN 15267
- Reduced operational costs
- Direct measurement without modifying the sample



## Features

- Continuous multi-gas measurement
- High resolution IR laser technology
- Patented OFCEAS TDL technology
- No moving optical parts
- Suitable for NO<sub>x</sub> ELV below 35 mg/m<sup>3</sup> (WI)/50 mg/m<sup>3</sup> (LCP)
- Direct measurement without modifying the sample
- Patented Low Pressure Sampling system
- Low compressed air consumption

## Technical data

Gas***	Certified range*	Typical max range
CO (mg/m <sup>3</sup> )	0 ... 75; 0 ... 1249 0 ... 30**	0 ... 3000
CO <sub>2</sub> (% vol)		0 ... 20
NO (mg/m <sup>3</sup> )	0 ... 78; 0 ... 150 0 ... 2008	0 ... 3000
NO <sub>2</sub> (mg/m <sup>3</sup> )	0 ... 40; 0 ... 100**	0 ... 2000
N <sub>2</sub> O (mg/m <sup>3</sup> )		0 ... 500
HF (mg/m <sup>3</sup> )	0 ... 1.5; 0 ... 10**	0 ... 100
SO <sub>2</sub> (mg/m <sup>3</sup> )	0 ... 75; 0 ... 2858	0 ... 5000
HCl (mg/m <sup>3</sup> )	0 ... 15	0 ... 150
NH <sub>3</sub> (mg/m <sup>3</sup> )	0 ... 15; 0 ... 45 0 ... 76	0 ... 500
CH <sub>4</sub> (mg/m <sup>3</sup> )	0 ... 5; 0 ... 20**	0 ... 500
O <sub>2</sub> (% vol)	0 ... 21	0 ... 25
H <sub>2</sub> O (% vol)	0 ... 30; 0 ... 40	0 ... 60
H <sub>2</sub> S (mg/m <sup>3</sup> )		0 ... 7500 0 ... 100
CHOH (mg/m <sup>3</sup> )		0 ... 30 0 ... 5
Linearity	<2 % range	
Repeatability	<1 % range	
Response time	<100 s (all gases) except NH <sub>3</sub> , HCl, HF (<400 s)	
Drift zero/span	Negligible	

## Benefits

- Multicomponent measurement without interference regardless of the matrix
- Measurement in wet gases
- Zero information contained in the signal (no zero gas required)
- Very fast response time
- Reduced operational costs (low compressed air + low power consumption due to self heated line @ 80 °C)
- High availability of the system

Analyzer	
Power supply	110 ... 230 VAC, 50 ... 60 Hz, 750 VA (consumption)
Compressed air supply	Dust free, oil free, dry, at ambient temperature 3 bar gage pressure at max 5.5 l/min flow Fail-safe for at least 15 min. after power outage Connected with ¼" stainless steel Swagelok connector
Ambient conditions	• Temperature: +5 ... +40 °C • Humidity: 10 ... 90 % relative humidity, non-condensing
Degree of protection	Up to IP54, according to IEC 60529
Probe with sampling box	
Mechanical connections	Sample gas line with 42 mm diameter
Power supply	110 ... 230 VAC, 50 ... 60 Hz, 600 VA (consumption)
Degree of protection	IP65, according to IEC 60529
ATEX version	Available on request

Application data	
Sample gas	• Type: Air, flue gas, non-combustible process gas • Temperature: +5 ... +600 °C • Absolute humidity: 0 ... 80 % vol
Stack	• Flow velocity: 0 ... 30 m/s • Inner stack pressure: -30 ... +30 kPa, relative to ambient pressure • Minimum hole diameter: 75 mm

\* Certification according to EN 15267-3, QAL1 TÜV + MCert

\*\* Certification ongoing

\*\*\* Measure is displayed at 1,013.25 hPa and 0 °C

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