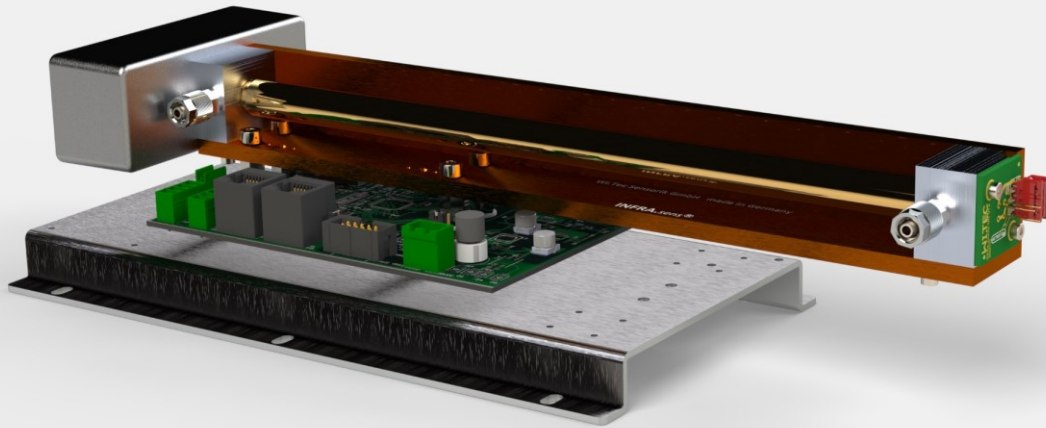


CO₂ / CO / N₂O / CH₄ / C_nH_m / H₂O / NO



INFRA.sens® AK250G

Applications

- > TOC water analysis
- > Elemental analysis
- > Environmental monitoring
- > Process control
- > Automotive measurement
- > Leakage detection

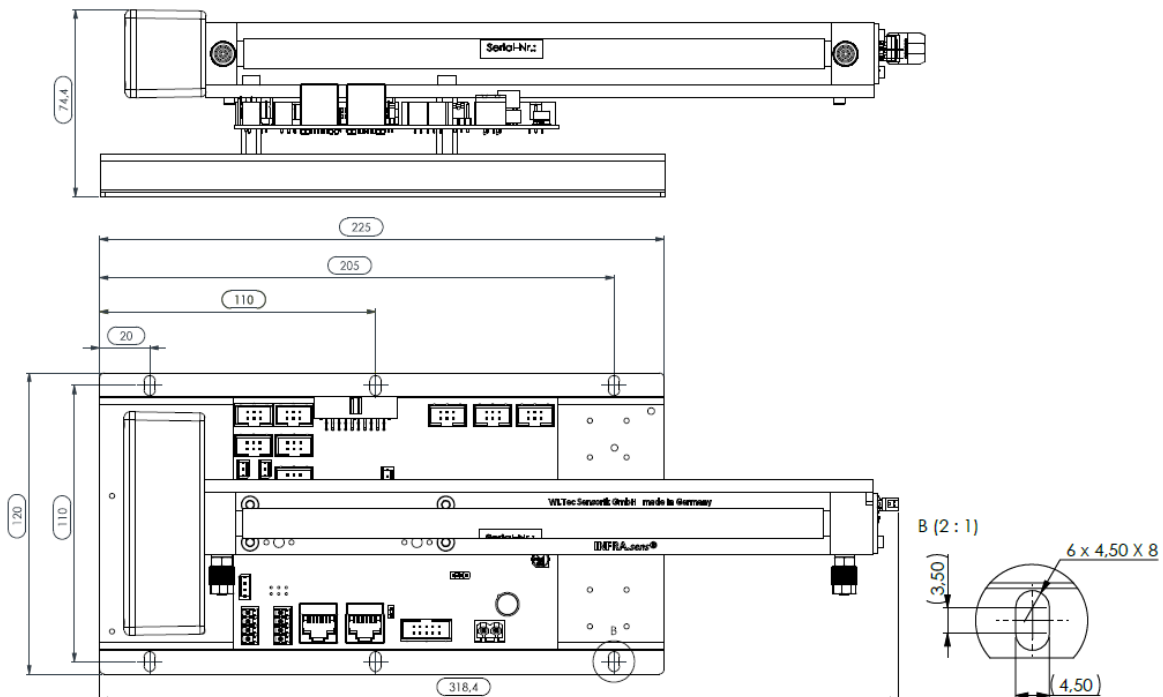
Options

- > O2.sens (Oxygen sensor)
- > P.sens (Pressure sensor)
- > HUMI.sens® (Humidity sensor)
- > Analogboard (0-10V)
- > Thermobox

Features & Benefits

- > high dynamic range
- > low power consumption <2W @ 24V
- > different interfaces (RS232, CANbus)
- > low drift
- > MARS-Tool (Wi.Tec Software)

Dimensions



For more and most recent information please have a look on our website at www.witec-sensorik.de/en/

INFRA.sens® AK250G

CO₂ / CO / N₂O / CH₄ / C_nH_m / H₂O / NO

List of module configurations

	gas channel 1 ¹	gas channel 2 ¹	gas channel 3 ¹	gas channel 4 ¹	option ²		
Single Gas Module	CO / CO ₂ / N ₂ O / CH ₄ / C _n H _m / H ₂ O / NO				O ₂	P	H
Dual Gas Module	CO / CO ₂ / N ₂ O / CH ₄ / C _n H _m / H ₂ O / NO	CO / CO ₂ / N ₂ O / CH ₄ / C _n H _m / H ₂ O / NO			O ₂	P	H
Triple Gas Module	CO / CO ₂ / N ₂ O / CH ₄ / C _n H _m / H ₂ O / NO	CO / CO ₂ / N ₂ O / CH ₄ / C _n H _m / H ₂ O / NO	CO / CO ₂ / N ₂ O / CH ₄ / C _n H _m / H ₂ O / NO		O ₂	P	H

¹ one gas per channel selectable

² O₂ = oxygen sensor (**O2.sens**) P = pressure sensor (**P.sens**), H = humidity sensor (**HUMI.sens**®)

List of measurement ranges

Measurement range ¹	CO ₂	CO	N ₂ O	CH ₄	C _n H _m	CF ₄	SF ₆	H ₂ O	NO
100Vol.%									
50Vol.%									
30Vol.%									
20Vol.%	✓								
10Vol.%	✓								
5Vol.%	✓								
1Vol.%	✓	✓		✓	✓			✓ ⁴	✓
5000ppm	✓	✓		✓	✓			✓	✓
2000ppm	✓	✓	✓	✓	✓			✓	✓
1000ppm	✓	✓	✓	✓	✓				✓
500ppm	✓	✓ ²	✓	✓ ³	✓ ³				
100ppm	✓		✓						
50ppm	✓								
10ppm									

¹ Full scale value (F.S.)

² We recommend the usage of our TBH on request

³ Only with response time >10s

⁴ Up to 2Vol.%

For other measuring ranges please refer to our further datasheets

Subject to change without notice. // 2021-12 Rev.08



The Gas Measurement Company

CAUSE IT MAKES .SENS

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INFRA.sens® AK250G

CO₂ / CO / N₂O / CH₄ / C_nH_m / H₂O / NO

General features	
Measurement principle	Non-dispersive infrared (NDIR); dual beam; dual to quad wavelengths
Measurement range	see list of measurement ranges
Gas flow	0.1 – 1.5 l/min
Dimensions	318.4mm x 120mm x 74.4mm
Weight	approx. 720g
Tube connector	4/6mm tube
Lifetime of IR radiation source	> 40 000h
Measuring response ¹	
Warm-up time	1 min (initial), <15 min ²
Response time(t ₉₀)	1.5s – 15s ³
Detection limit (3·σ)	< 0,5% F.S ⁴
Linearity error	< ± 1% F.S.
Repeatability	< ± 0.3% of reading
Long term stability (zero)	< ± 2% F.S./week
Long term stability (span)	< ± 2% F.S./month
Temp. Influence zero	< 1% F.S./10K
Temp. Influence span	< 1% F.S./10K ⁵
Cross sensitivity	< 2% F.S. ⁶
Pressure influence	< 1.5%/10hPa of reading ⁷
Electrical inputs and outputs	
Supply voltage	24 (15 – 30) VDC
Supply current (peak)	< 0.1A
Average power consumption	< 2W
Digital output signal	RS 232 (ASCII) or CANbus
Climatic conditions	
Operating temperature	5 – 45 °C ⁸
Storage temperature	-20 – 60 °C
Air pressure	600 – 1200 hPa (mbar)
Ambient humidity	0 – 95% rel. humidity (not condensing)

F.S. full scale ¹ related to P_a = 1020hPa; T_a = 25°C; flow = 1l/min ² full specification, demands to environmental conditions ³ depends on digital filter settings ⁴ at zero point ⁵ with span temperature compensation ⁶ to each calibrated gas channel, other gases on request ⁷ without pressure compensation ⁸ stable climatic conditions recommended, please check dewpoint considerations

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