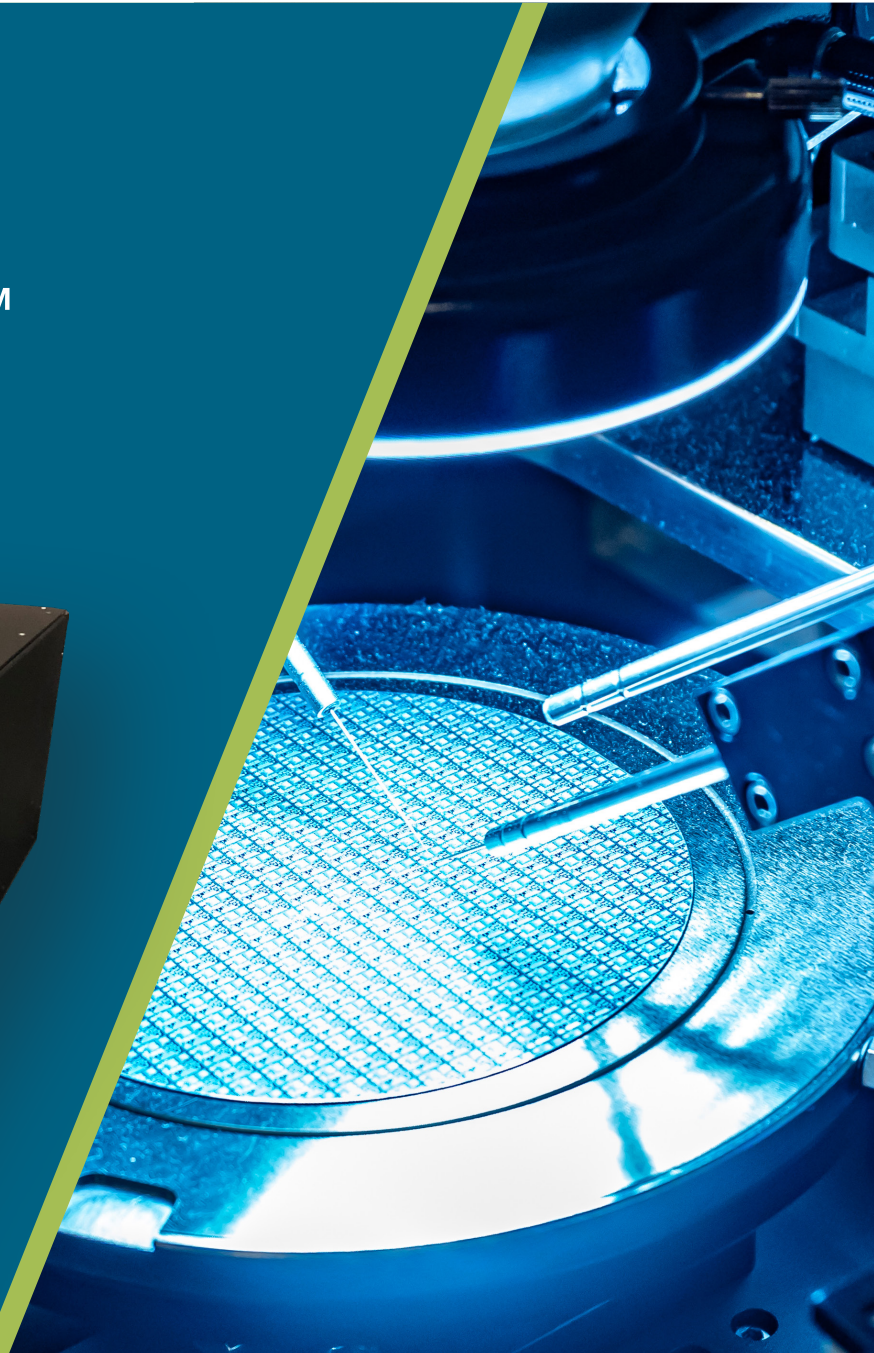


**PRODUCT DATASHEET**

# HALO 3 CH<sub>4</sub>™

TRACE METHANE ANALYZER  
FOR HIGH-PURITY GASES



## Designed for trace level methane analysis, HALO 3 CH<sub>4</sub> offers:

- Low single-digit parts per billion (ppb) methane detection capability in an array of gases
- Absolute measurement (freedom from calibration gases)
- Wide dynamic range
- Low cost of ownership and operational simplicity
- Clean technology – no external calibration gases required
- Compact analyzer footprint

# Specifications

## Performance

<b>Operating range:</b>	See gas performance table below
<b>Detection limit (LDL, 3<math>\sigma</math>/24h):</b>	See gas performance table below
<b>Precision (1<math>\sigma</math>, greater of):</b>	$\pm$ 0.75% or 1/3 of LDL
<b>Accuracy (greater of):</b>	$\pm$ 4% or LDL
<b>Speed of response:</b>	< 1 minute to 90%
<b>Environmental conditions:</b>	10°C to 40°C 30% to 80% RH (non-condensing)
<b>Storage temperature:</b>	-10°C to 50°C

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## Gas Handling System and Conditions

<b>Wetted materials:</b>	316L stainless steel (corrosive gas version optional) 10 Ra surface finish
<b>Gas connections:</b>	1/4" male VCR inlet and outlet
<b>Leak tested to:</b>	1 x 10 <sup>-9</sup> mbar l / sec
<b>Inlet pressure:</b>	10 - 125 psig (1.7 - 9.6 bara)
<b>Flow rate:</b>	Up to 1.8 slpm
<b>Sample gases:</b>	Most inert, toxic, passive and corrosive matrices
<b>Gas temperature:</b>	Up to 60°C

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## Dimensions & Weight

<b>Standard sensor:</b>	H x W x D 8.73 x 8.57 x 23.6 in (222 x 218 x 599 mm)
<b>Sensor rack (fits up to two sensors):</b>	H x W x D 8.73 x 19.0 x 23.6 in (222 x 483 x 599 mm)
<b>Standard sensor weight:</b>	28 lbs (12.7 kg)

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## Electrical and Interfaces

<b>Platform:</b>	Max Series analyzer
<b>Alarm indicators:</b>	2 user programmable 1 system fault Form C relays
<b>Power requirements:</b>	90 - 240 VAC, 50/60 Hz
<b>Power consumption:</b>	40 Watts max.
<b>Signal output:</b>	Isolated 4-20 mA per sensor
<b>User interfaces:</b>	5.7" LCD touchscreen. 10/100 Base-T Ethernet. USB, RS-232, RS-485. Modbus TCP (optional)
<b>Data storage:</b>	Internal or external flash drive
<b>Certification:</b>	CE Mark

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## Performance, CH<sub>4</sub>

Detection and Matrix	Range	LDL (3 $\sigma$ )	Precision (1 $\sigma$ ) @ zero
<i>Standard Model</i>			
CH <sub>4</sub> in N <sub>2</sub> :	0 - 8 ppm	1.6 ppb	0.6 ppb
CH <sub>4</sub> in He:	0 - 5 ppm	1.1 ppb	0.4 ppb
CH <sub>4</sub> in Ar:	0 - 7 ppm	1.4 ppb	0.5 ppb
CH <sub>4</sub> in H <sub>2</sub> :	0 - 8 ppm	1.6 ppb	0.6 ppb
CH <sub>4</sub> in O <sub>2</sub> :	0 - 6 ppm	1.1 ppb	0.4 ppb
<i>CO<sub>2</sub> Model</i>			
CH <sub>4</sub> in CO <sub>2</sub> :	0 - 70 ppm	35 ppb	12 ppb
CH <sub>4</sub> in N <sub>2</sub> :	0 - 60 ppm	30 ppb	10 ppb

Contact us for additional analytes and matrices. U.S. Patent # 7,277,177

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