

HALO-CH₄

Trace Methane Analyzer for High Purity Gases

The HALO trace gas analyzer provides users with the unmatched accuracy, reliability, speed of response and ease of operation that users of Tiger Optics analyzers have come to expect. The HALO trace gas analyzer features Tiger Optics' patented Cavity Ring-Down Spectroscopy-based trace gas sensor in a very compact and economic analyzer design. This versatile analyzer allows users to measure methane in most inert and passive gases with just one device. Users also enjoy freedom from requirements such as periodic sensor maintenance, span calibrations, purifier replacement and pump rebuilds. As a result, the HALO is ideally suited to many applications where trace gas measurement is extremely critical.



PERFORMANCE*

Lowest Detection Limit**:	4 ppb
Sensitivity:	2 ppb
Accuracy (greater of):	4% of reading or ± 2 ppb
Speed of Response (typical):	Response to 50 ppb intrusion- < 1 minute
Operating Range:	0-8 ppm
Environmental Conditions:	10°C-40°C
Storage Temperature:	-10°C-50°C

* Nitrogen background gas

** Based on 24-hour peak-to-peak variation

DIMENSIONS

Mounting (H x W x D):	8.75" x 8.5" x 22.5" (22.2cm x 21.6 x 57.2)
Weight:	28 pounds (12.7 kg)

MATERIALS OF CONSTRUCTION

Materials of Construction:	316L stainless steel (optional Hastelloy®)
Wetted Components:	10 Ra surface finish
Gas Connection:	1/4" M VCR Inlet & Outlet
Leak Tested to:	$< 2 \times 10^{-8}$ mbar • l/sec

GAS SAMPLE CONDITIONS

Sample Inlet Pressure:	30-125 psi (3.1- 9.6 bar)
Flow Rate:	up to 1,800 sccm
Sample Gases:	Most inert and passive gases
Sample Line Temperature:	Up to 60°C

ELECTRICAL

Alarm Indicators:	User programmable set points
Power Requirements:	90-240 VAC, 50/60 Hz
Power Consumption:	40 Watts max.
Output Signals:	
• Recorder	Isolated 4-20 / 0-5VDC
• Alarm	Form-C relay
Communications:	RS-232, Wireless (Optional)
User Interface:	5.6" LCD touch screen, 10/100BaseT Ethernet, RS-232

TECHNOLOGY

Approvals:	CE: LVD & EMC
Method:	Cavity Ring-Down Spectroscopy
Patents:	U.S. Patent # 5,528,040 Other Patents Pending