

HALO-500-H₂O

Trace Moisture Analyzer for High Detection Range

The HALO-500 moisture analyzer provides users seeking a higher detection range with the unmatched accuracy, reliability, speed of response and ease of operation that users of Tiger Optics analyzers have come to expect. The HALO moisture analyzer features Tiger Optics' patented Cavity Ring-Down Spectroscopy-based moisture sensor in a very compact and economic analyzer design. This versatile analyzer allows users to measure moisture in most inert, corrosive and toxic 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 moisture measurement is extremely critical. These applications include fixed bulk gas continuous quality control, portable mobile analytical carts, process tool monitoring, air separation, gas cylinder quality control and many other demanding applications.



PERFORMANCE*

Lowest Detection Limit**:	20 ppb
Sensitivity:	10 ppb
Accuracy (greater of):	4% of reading or ± 10 ppb
Speed of Response (typical):	95% Response < 3 minutes
Operating Range:	20 ppb – 500 ppm
Environmental Conditions:	10°C-40°C
Storage Temperature:	-10°C-50°C

* Nitrogen background gas

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

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

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

DIMENSIONS

Mounting (H x W x D):	8.75" x 8.5" x 23.6" (22.2 cm x 21.6 x 57.2)
Weight:	28 pounds (12.7 kg)

GAS SAMPLE CONDITIONS

Sample Inlet Pressure:	10-125 psig
Flow Rate:	up to 1,800 sccm
Sample Gases:	Most inert, passive, toxic and corrosive gases
Sample Line Temperature:	Up to 60°C

TECHNOLOGY

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