



# Tiger-*i* 2000 HCl

## Trace Hydrogen Chloride Monitor for Ambient Molecular Contaminants

AUTOMOTIVE

ENERGY

ENVIRONMENTAL

GASES & CHEMICALS

LABORATORIES

LEDS

SEMICONDUCTORS

**Designed for ambient molecular contaminants, the compact Tiger-*i* 2000 offers:**

- Accuracy traceable to the world's major national reference labs
- Specificity – no ozone or other interference
- Sub-ppb detection capability
- Freedom from the need for span calibrations
- No periodic sensor replacement/maintenance
- Great sensitivity
- Wide dynamic range

### Delivering your best measurements

Detect ambient contamination issues before they can damage your processes. Using Tiger Optics' Tiger-*i* 2000, you can verify HCl levels with part-per-billion accuracy, drift-free stability, and virtually immediate response. You'll find our system exceptionally easy and fast to install, and effortless to maintain, with built-in calibration verification.

Tiger-*i* sensors can detect trace HCl, HF, NH<sub>3</sub>, CH<sub>4</sub>, and other species. And its robust design – free of moving parts – results in an analyzer that has a high Mean Time Between Failure (MTBF) rate and a very low Cost of Ownership (CoO).

**Tiger**optics

21<sup>ST</sup> CENTURY SPECTROSCOPY

# Tiger-i 2000 HCl

## Trace Hydrogen Chloride Monitor for Ambient Molecular Contaminants



### Performance

Lowest Detection Limit	0.7 ppb (based on peak to peak variation over 24 hours at 50% R.H.)
Sensitivity	0.35 ppb
Accuracy (greater of)	4% of reading or $\pm .7$ ppb
Speed of Response (typical)	80% response < 2 minutes
Operating Range	0-4 ppm
Environmental Conditions	10 °C - 40 °C
Storage Temperature	-10 °C - 50 °C

### Materials of Construction

Materials of Construction	316L stainless steel, Teflon, PFA, Silcolloy™ 1000
Wetted Components	10 Ra surface finish
Gas Connection	1/4" M VCR Inlet & Outlet
Leak Tested to	<2 X 10 <sup>-8</sup> mbar • l /sec

### Electrical

Alarm Indicators	User programmable set points
Power Requirements	90-240 VAC, 50/60 Hz
Power Consumption	200 Watts max.
Output Signals	
• Recorder	0-5VDC, Isolated 4-20
• Alarm	Form-C relay
Communications	RS-232, Wireless (optional)
User Interface	5.6" LCD touch screen, 10BaseT Ethernet, RS-232

### Dimensions

Mounting (H x W x D)	8.75" x 8.5" x 22.5" (22.2 cm x 21.6 x 57.2)
Weight	33 pounds (15 kg)

### Gas Sample Conditions

Sample Inlet Pressure	0 - 5 psig
Flow Rate	Approx. 1,000 sccm
Sample Gas	Ambient (non-condensing)
Sample Line Temperature	Up to 60 °C
*Vacuum source required	

### Technology

Approvals	CE: LVD & EMC
Method	Cavity Ring-Down Spectroscopy

Contact us for additional analytes and matrices.  
U. S. Patent # 5,528,040 • U.S. Patent # 7,255,836 • Other patents pending