

# LaserTrace-H<sub>2</sub>O-LP

## Trace Moisture Gas Analyzer for Hydride Gases

### PERFORMANCE\*

<b>Lowest Detection Limit:</b>	8 ppb in NH <sub>3</sub> and PH <sub>3</sub> ; 4 ppb in AsH <sub>3</sub>
<b>Sensitivity:</b>	4 ppb / 2 ppb
<b>Accuracy (greater of):</b>	4% of reading or ± 4 ppb/2 ppb
<b>Speed of Response (typical):</b>	95% of Value in < 3 min.
<b>Operating Range:</b>	0 – 8 ppm
<b>Environmental Conditions:</b>	10°C-40°C
<b>Storage Temperature:</b>	-10°C-50°C

### DIMENSIONS

<b>Mounting (H x W x D):</b>	
• <b>Sensor Module:</b> (Stand Alone Configuration) (Rack Mount Configuration);	7" x 9.5" x 27" 2 sensors per rack mount enclosure, 7" x 19" x 27"
• <b>Electronics Module:</b>	14" x 19" x 14"
<b>Weight:</b>	
• <b>Sensor Module:</b>	38 lbs. per sensor
• <b>Electronics Module:</b>	32 lbs. per sensor

### MATERIALS OF CONSTRUCTION

<b>Materials of Construction:</b>	316l stainless steel (optional Hastelloy®)
<b>Wetted Components:</b>	10 Ra surface finish
<b>Gas Connection:</b>	1/4" M VCR Inlet & Outlet
<b>Leak Tested to:</b>	<2 X 10 <sup>-8</sup> mbar • l/sec

### GAS SAMPLE CONDITIONS

<b>Sample Inlet Pressure:</b>	10-125 psig
<b>Flow Rate:</b>	<1 slpm
<b>Sample Gas:</b>	Hydride and Inert Gases
<b>Sample Line Temperature:</b>	Up to 60°C

### ELECTRICAL

<b>Alarm Indicators:</b>	User programmable set points
<b>Power Requirements:</b>	90-240 VAC, 50/60 Hz
<b>Power Consumption:</b>	200 Watts max.
<b>Output Signals:</b>	
• <b>Recorder</b>	0-5VDC, Isolated 0/4-20mA per sensor
• <b>Alarm</b>	Form-C relay per sensor
<b>User Interface:</b>	10.4" color VGA display with touch screen, PS2 Mouse and Keyboard, 10BaseT Ethernet, USB, RS-232

### TECHNOLOGY

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

\*Vacuum Source required