



# LD8001+



## ONLINE PPT/PPB TRACE NITROGEN IN ARGON/HELIUM ANALYZER



The LD8001+ is designed for ultra-pure Argon or Helium gas analysis. With its integrated ppt/ppb oscillation module, unique performance can be achieved. Low ppt ultra-fast analysis for online trace nitrogen is now possible without the need of a gas chromatograph. This compact design makes it very attractive for particularly the semiconductor market.

### FEATURES:

- Unique Plasma Emission Detector design based on a Duty Cycle Controlled System
- Integrated oscillation system for drift removal and quick response time
- Bootloader integrated for software update via Ethernet
- LAN/Web control
- Touchscreen 7 inches HDMI TFT display
- 4-20 mA output as standard
- Range Identification Relay
- Micro-valve for very low dead volume and fast purging time.
- Low sample consumption
- 3U cabinet

### APPLICATIONS:

- Semiconductor manufacturing
- Air separation unit
- Speciality gas laboratories
- Process control
- Argon purification plant
- Chemical plants
- Helium liquification plants
- Gas management system

## SPECIFICATIONS:

<b>DETECTOR TYPE</b>	Plasma Emission Detector design based on a Duty Cycle Controlled System. Integrated oscillating sub ppb system.	
<b>RANGE</b>	0 – 50 ppb/0-500 ppb/0-1000 ppb	
<b>REPEATABILITY &amp; ACCURACY</b>	< +/- 1% (refer to design report)	
<b>RESPONSE TIME</b>	< 1 minute	
<b>STANDARD FEATURES</b>	<ul style="list-style-type: none"> <li>• Manual or auto-ranging (user selectable)</li> <li>• Microprocessor controlled</li> <li>• Touchscreen 7 inches HDMI TFT display</li> <li>• Self diagnosis system with auto-resolve alarm</li> <li>• 4-20 mA isolated output</li> <li>• Alarm Historic</li> <li>• Safe calibration procedure to avoid any bad calibration</li> <li>• Digital outputs for remote monitoring: (all dry relay contacts) <ul style="list-style-type: none"> <li>- System status (1 output)</li> <li>- Range in use (3 output)</li> <li>- Calibration in use (1 output)</li> </ul> </li> </ul>	
<b>OPTIONS</b>	<ul style="list-style-type: none"> <li>• RS-232 / 422 / 485 / Profibus / ProfiNet / Ethernet IP / Modbus / EtherCat</li> <li>• 2 alarm outputs (user programmable set point)</li> </ul>	
<b>GAS CONNECTIONS</b>	Sample: 1/8" face seal fittings	Vent: 1/8" compression fitting
<b>CALIBRATION GAS</b>	Zero: Integrated in the unit with LDP1000	Span: 1000ppb N2
<b>SAMPLE FLOW REQUIREMENTS</b>	150 sccm at 15psig to 500sccm at 30psig	
<b>SAMPLE GAS OPERATING PRESSURE</b>	10-30 psig	
<b>OPERATING TEMPERATURE</b>	10 °C to 45 °C (must be stable)	
<b>SUPPLY</b>	115 VAC, 50 – 60 Hz or 220 VAC, 50 – 60 Hz	
<b>POWER CONSUMPTION</b>	Maximum 110 watts	
<b>DRIFT/STABILITY</b>	< +/- 0.01% (refer to design report)	
<b>WEIGHT</b>	37 lbs (17 kg)	
<b>ENCLOSURE TYPE</b>	3U rackmount	
<b>INGRESS PROTECTION</b>	IP20 in accordance with IEC 60529	
<b>ENCLOSURE FINISH</b>	RAL7030 powder coat	
<b>CERTIFICATION</b>	In compliance with EMC directives : IEC 61000-4-3: 2020, IEC 61000-4-6: 2013, IEC 61000-4-2: 2008, IEC 61000-4-4: 2012, IEC 61000-4-5: 2014 A1: 2017, IEC 61000-4-8: 2009, IEC 61000-4-11: 2020 for immunity & CISPR 32: 2015 A1: 2019, FCC Part 15, Subpart B: 2021, CISPR 32: 2015 A1: 2019, FCC Part 15, Subpart B: 2021 for emissions.	



## ORDERING INFORMATION:

### Product Parent Code : LD8001+

LD8001+ (ppb) Impurity N<sub>2</sub>, Detector PED

PRODUCT ORDERING CODE {Feature A} + {Feature B} + {Feature C} + {Feature D} + {Feature E}		
Feature	Item	Description
FEATURE {A}	<b>BASE MODEL</b>	
	LD8001+	Trace ppb N <sub>2</sub> analyser with plasma emission detector, 0-50, 0-500, 0-1000 ppb (as default), electronic flow control
FEATURE {B}	<b>SAMPLE GAS</b>	
	B1	Argon
	B2	Helium
FEATURE {C}	<b>OPERATING VOLTAGE</b>	
	C1	120V
	C2	220V
FEATURE {D}	<b>OUTPUT</b>	
	D0	No output
	D1	4-20 mA Outputs (Default qty - 1)
	D2	A (Alarm option) (Default qty - 1)
FEATURE {E}	<b>SERIAL COMMUNICATION</b>	
	E0	No Serial Interface
	E1	Serial Interface - Modbus RS232 (Default qty - 1)
	E2	Serial Interface - Modbus RS-485 (Default qty - 0)
	E3	Serial Interface - Modbus Ethernet (Default qty - 0)
	E4	Serial Interface - Profibus (Default qty - 0)

## DIMENSIONS:

