# LD8000

## TRACE NITROGEN AND/OR OXYGEN IN ARGON, HELIUM AND CRUDE ARGON ANALYZER


**The LD8000 is an online analyzer to monitor trace N2 and/or O2 in Ar/He/Crude Argon. Different technologies combination is used to achieve the complete solution inside one compact 3U cabinet:**

Plasma Emission Detector for $N_2$


Electrochemical cell for $O_2$


### FEATURES:

- Trace Nitrogen and Oxygen in Argon/Helium/Crude Argon
- Compact 3U rackmount enclosure
- Large scale measurement
- 4-20 mA outputs as standard
- LAN/Web control
- Range Identification Relay
- Micro-valve for very low dead volume and fast purging time
- Low sample consumption
- Front adjustment valve for sample bypass flow to purge the sample gas line before the analyzer
- Optional zero gas calibration free system

### APPLICATIONS:

- Air separation unit
- Helium cryogenic installation
- Cryogenic truck loading station
- Speciality gas laboratories
- Process control
- Argon purification plant
- Steel Industries
- Chemical plants
- Welding gas control
- Helium liquification plants
- Gas management system
- Semiconductor manufacturing
- Quality control for truck fills and gas cylinders
- Inert glove box systems
- Universities and laboratories

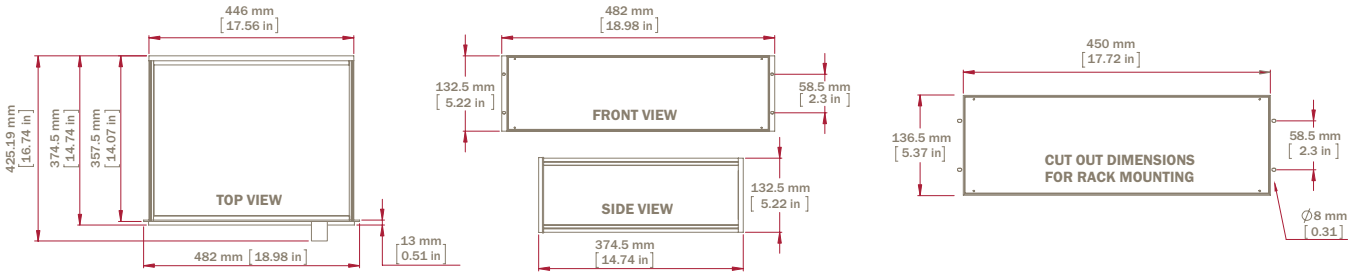
## SPECIFICATIONS:

| | | |
|---|---|---|
| **DETECTOR TYPES** | Plasma Emission Detector for $N_2$ / Electrochemical cell for $O_2$ | |
| **RANGE FOR $N_2$** | 0 – 1 ppm, resolution to 10 ppb<br>0 – 10 ppm, resolution to .1 ppm | 0 – 100 ppm, resolution to 1 ppm<br>other range possible up to 10000 ppm configurable |
| **RANGE FOR $O_2$** | 0 – 10 ppm, resolution to 100 ppb<br>0 – 100 ppm, resolution to .1 ppm | 0 – 1000 ppm, resolution to 1 ppm<br>other range possible up to 25% configurable |
| **STANDARD FEATURES** | • Manual or autoranging (user selectable)<br>• Microprocessor controlled<br>• 5.6" TFT intelligent LCD module with Touch Screen<br>• Self diagnosis system with auto-resolve alarm<br>• 4-20 mA isolated outputs | • Alarm Historic<br>• Safe calibration procedure to avoid any bad calibration<br>• Digital ouputs for remote monitoring: (all dry relay contacts)<br>- System status (1 output)<br>- Range in use (3 outputs per impurity)<br>- Calibration in use (1 output) |
| **OPTIONS** | • Internal sampling system for zero, span and sample | • Serial port: RS-232 / 422 / 485 / Profibus<br>• 2 alarm outputs (user programmable set point)<br>• Zero calibration gas free system |
| **GAS CONNECTIONS** | Sample: 1/8'' compression fittings | Vent: 1/8'' compression fitting |
| **CALIBRATION GAS** | Zero: LDP1000 purified gas (Getter) | Span: 8.0 to 9.5 ppm $N_2$ and $O_2$ (application dependant) |
| **SAMPLE FLOW REQUIREMENTS** | 75 to 200 sccm | |
| **RECOMMENDED MAXIMUM OPERATING PRESSURE** | 30 PSIG (206 kPAG) | |
| **RECOMMENDED MINIMUM OPERATING PRESSURE** | 4 PSIG (28 kPAG) optional 1 PSIG (7 kPAG) | |
| **OPERATING TEMPERATURE** | 10 °C to 45 °C | |
| **SUPPLY** | 115 VAC, 50 – 60 Hz or 220 VAC, 50 – 60 Hz | |
| **ACCURACY** | Better than ± 1% full scale | |
| **DRIFT** | < ± 1% | |
| **RESPONSE TIME** | T90 < 10 seconds | |
| **$O_2$ SENSOR LIFE** | 15-21 months (depending $O_2$ concentration level exposition) | |
| **WEIGHT** | 29 lbs (13 kg) | |

## ORDERING INFORMATION:

| LD8000 | -X | -X | -XXX | -X | -XX | -X | -XXX | -X |
|---|---|---|---|---|---|---|---|---|
| | **N2:** Nitrogen<br>**O2:** Oxygen<br>**N2 + O2:** Nitrogen + Oxygen | **A:** Argon<br>**H:** Helium<br>**C:** Crude Argon<br>**D:** Dual (Argon + Helium) | Operating Voltage:<br>**120:** 120 volts<br>**220:** 220 volts | **A:** Alarm option | Integrated sampling system<br>**S1:** 1 sample + zero + span<br>**S2:** 2 samples + zero + span | **C:** Zero gas free system | Serial communication:<br>**RS2:** RS-232<br>**RS4:** RS-485<br>**PFB:** Profibus | **P:** Purge value and flowmeter |

## DIMENSIONS:





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