DORGEAN
Beijing Dorgean Electronic Technology Co.,Ltd

Instrument Expert
Original factory packaging
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LD8001

LDetek

TRACE NITROGEN IN ARGON,
HELIUM AND CRUDE ARGON ANALYZER

The LD8001 is an online analyzer to monitor trace N2 in Ar/He/Crude Argon. Plasma emission detector is used to selectively measure trace N2 in Argon or/and Helium bulk gases. The analysis of trace N2 in Neon, Xenon and Krypton can also be realized.

Plasma Emission Detector for N_2

FEATURES:

- Trace Nitrogen 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
- Optional zero gas calibration free system
- Touchscreen 7'' HMDI TFT Display

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	
RANGE FOR N_2	0 – 1 ppm, resolution to 10 ppb 0 – 10 ppm, resolution to .1 ppm	0 – 100 ppm, resolution to 1 ppm other range possible up to 5000 ppm configurable

STANDARD FEATURES	• Manual or autoranging
	  (user selectable)
	• Microprocessor controlled
	• Touchscreen 7'' HMDI TFT Display
	• Self diagnosis system
	  with auto-resolve alarm
	• 4-20 mA isolated outputs
		• Alarm Historic
		• Safe calibration procedure to avoid any
		  bad calibration
		• Digital ouputs for remote monitoring: (all dry
		  relay contacts)
		  - System status (1 output)
		  - Range in use (3 outputs per impurity)
		  - Calibration in use (1 output)

OPTIONS	• Internal sampling system for zero, span and sample	• Serial port: RS-232 / 422 / 485 / Profibus • 2 alarm outputs (user programmable set point) • 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 (application dependant)
SAMPLE FLOW REQUIREMENTS	75 to 200 sccm	
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	
OPERATING SAMPLE PRESSURE RANGE	3-30psig (for lower sample pressure requirement, an additional high purity pump is used)	
OUTLET PRESSURE	Atmospheric	
ENCLOSURE TYPE	3U rackmount type	
INGRESS PROTECTION	IP20 in accordance with IEC 60529	
ENCLOSURE FINISH	RAL7030 powder coat	
CERTIFICATION	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.	
WEIGHT	29 lbs (13 kg)	

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ORDERING INFORMATION:

Product Parent Code : LD8001

LD8001 (ppm) Impurity N_2 , Detector PED

PRODUCT ORDERING CODE {Feature A} + {Feature B} + {Feature C} + {Feature D} + ... + {Feature H}		
Feature	**Item**	**Description**
FEATURE {A}	**BASE MODEL**	
	LD8001	Trace N2 analyser with plasma emission detector, 0-1, 0-10, 0-100 ppm (as default), electronic flow control
FEATURE {B}	**SAMPLE GAS**	
	B1	Argon
	B2	Helium
	B3	Crude Argon
	B4	Dual (Argon + Helium)
FEATURE {C}	**OPERATING VOLTAGE**	
	C1	120V
	C2	220V
FEATURE {D}	**OUTPUT**	
	D0	No output
	D1	4-20 mA Outputs
	D2	A (Alarm option)
FEATURE {E}	**SERIAL COMMUNICATION**	
	E0	No Serial Interface
	E1	Serial Interface - Modbus RS232
	E2	Serial Interface - Modbus RS-485
	E3	Serial Interface - Modbus Ethernet
	E4	Serial Interface - Profibus
FEATURE {F}	**INTEGRATED SAMPLING SYSTEM**	
	F0	No integrated sampling system
	F1	1 sample + zero + span
	F2	2 samples + zero + span
FEATURE {G}	**ZERO GAS FREE**	
	G0	No Zero gas free system
	G1	C (Zero gas free system)
FEATURE {H}	**PURGE OPTION**	
	H0	No purged valve and flowmeter
	H1	P (Purged valve and flowmeter)

DIMENSIONS:

446 mm [17.56 in]
425.19 mm [16.74 in]
374.5 mm [14.74 in]
357.5 mm [14.07 in]
482 mm [18.98 in]
13 mm [0.51 in]

TOP VIEW

482 mm [18.98 in]
132.5 mm [5.22 in]
58.5 mm [2.3 in]

FRONT VIEW

132.5 mm [5.22 in]
374.5 mm [14.74 in]

SIDE VIEW

450 mm [17.72 in]
136.5 mm [5.37 in]
58.5 mm [2.3 in]
Ø8 mm [0.31]

CUT OUT DIMENSIONS FOR RACK MOUNTING