



# LD8001TCD



## BINARY GAS ANALYZER



The LD8001-TCD is a Thermal Conductivity-based Gas Analyzers used to measure and monitor binary gas streams. It can also monitor one component in a more complex gas mixture when the background gases have the same ratio to each other, or have similar thermal conductivity values.

### FEATURES:

- Unique Thermal Conductivity Detector (TCD)
- Bootloader integrated for software update via Ethernet
- Large scale measurement
- 4-20 mA output as standard
- Range Identification Relay
- Touchscreen 7 inches HDMI TFT display
- LAN/Web control
- Micro-valve for very low dead volume and fast purging time
- 3U cabinet

### APPLICATIONS:

- Gas Manufacturing Facilities: monitoring Pressure Swing Adsorption (PSA) Systems
- Gas management system
- Hydrogen production
- Gas Blending Equipment
- Air Liquification Plants: monitoring purity of Ar, O<sub>2</sub>, H<sub>2</sub>, N<sub>2</sub>, He, CO<sub>2</sub>, or Ne
- Welding gas control
- Steel Mills: CO<sub>2</sub> in off-gas from gas generators
- Petroleum Refineries: H<sub>2</sub> purity in C<sub>1</sub> - C<sub>6</sub> hydrocarbons
- Speciality gas laboratories
- Heat Treating: H<sub>2</sub> in N<sub>2</sub> and other annealing gases
- Process control
- Power Generation Plants: H<sub>2</sub> cooling gas in turbine generator housings; CO<sub>2</sub> in turbine generator housing; checking H<sub>2</sub> purity
- Ammonia Plants
- Chemical plants
- Refrigeration Facilities

## SPECIFICATIONS:

<b>DETECTOR TYPE</b>	Thermal Conductivity Detector (TCD)	
<b>RANGE</b>	Ppm to % (application dependant)	
<b>ACCURACY</b>	Better than 3% FS	
<b>STANDARD FEATURES</b>	<ul style="list-style-type: none"> <li>• Manual or autoranging (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>• LAN/Web control</li> <li>• 4-20 mA isolated output</li> <li>• Alarm Historic</li> </ul>	
		<ul style="list-style-type: none"> <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>• Internal sampling system for zero, span and sample</li> <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" compression fittings	Vent: 1/8" compression fitting
<b>SAMPLE FLOW REQUIREMENTS</b>	300 sccm	
<b>SAMPLE GAS OPERATING PRESSURE</b>	3 to 30 PSIG	
<b>OPERATING TEMPERATURE</b>	10 °C to 45 °C	
<b>SUPPLY</b>	115 VAC, 50 – 60 Hz or 220 VAC, 50 – 60 Hz	
<b>POWER CONSUMPTION</b>	Maximum 40 watts	
<b>WEIGHT</b>	30 lbs (14 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-TCD  
LD8001-TCD Binary gas analyser

PRODUCT ORDERING CODE {Feature A} + {Feature B} + {Feature C} + {Feature D} + ... + {Feature F}		
Feature	Item	Description
FEATURE {A}	BASE MODEL	
	LD8001-TCD	Binary gas analyser with a Thermal Conductivity Detector in %.
FEATURE {B}	SAMPLE GAS	
	BX	Contact Engineer to select sample gas
FEATURE {C}	OPERATING VOLTAGE	
	C1	120V
	C2	220V
FEATURE {D}	OUTPUT	
	D0	No output
	D1	4-20 mA Outputs (Default qty - 1)
	D2	A (Alarm option) (Default qty - 1)
FEATURE {E}	SERIAL COMMUNICATION	
	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)
FEATURE {F}	INTEGRATED SAMPLING SYSTEM	
	F0	No integrated sampling system
	F1	1 sample + zero + span
	F2	2 samples + zero + span

DIMENSIONS:

