



# TDL100-P

- Carbon Monoxide + Oxygen
- Single access port installation
- Interference free measurements
- In-situ & fast response



## TDL100-P-CO-O2 Tunable Diode Laser Gas Sensor

The **TDL100-P-CO-O2** from TDL Sensors Ltd is a unique Carbon Monoxide and Oxygen Tunable Diode Laser Gas Sensor for Stack and Process Monitoring.

TDL100-P



Tunable Diode Laser Gas Sensors offer:

- Measurements are free from interference by other gases
- In-situ, real-time measurements
- Very low maintenance
- Negligible drift

### Features

- **TDL100-P-CO-O2** is a single access port probe
- Laser module for Oxygen means an additional zirconia probe installation is not required.
- Measurements are free from interference by other gases
- In-situ measurement, no sampling lines
- Fast response
- Reliable, very low maintenance
- Operates under high dust loads

### Applications

- CEMS
- Optimising combustion in Boilers, Furnaces, Kilns
- Steel Industry (Blast Furnace, Coke Ovens)
- Power Plants

### Other Ordering Options

Ammonia + Moisture  
Ammonia + Moisture + Oxygen  
Hydrogen Chloride + Moisture  
Hydrogen Chloride + Moisture + Oxygen  
Hydrogen Fluoride + Moisture  
Hydrogen Fluoride + Moisture + Oxygen  
Hydrogen Chloride + Hydrogen Fluoride + Moisture

# Specifications

<b>Measurement</b>	
<b>Optical pathlength</b>	1m folded path
<b>Detection limit*</b> (HCl), (H <sub>2</sub> O), (O <sub>2</sub> )	0.1ppm, 0.1%, 0.05%
<b>Temperature (max)</b>	500°C
<b>Accuracy</b>	2% of reading
<b>Linearity</b>	Better than 1%
<b>Resolution</b>	<0.2ppm
<b>Span drift</b>	< 4% of measuring range between maintenance intervals
<b>Zero drift</b>	Negligible (< 2% of measuring range between maintenance intervals)
<b>Response time (T<sub>90</sub>)</b>	<2s (depending on application conditions)
<b>Input/Output</b>	
<b>Analogue output</b>	4–20mA current loop (optional - up to 4 max)
<b>Digital output</b>	RS232, RS485, modbus (optional), ethernet (optional)
<b>Relay output</b>	SPCO rated, 24VDC/280VAC 2A (optional) – maximum of 4
<b>Analogue input</b>	4–20mA process temperature and pressure reading (optional)
<b>Display</b>	Graphic back lit LCD
<b>Power</b>	
<b>Power supply</b>	85 - 254 VAC, 50/60 Hz @100VA or 24VDC (optional)
<b>Maintenance</b>	
<b>Interval</b>	Every 6–12 months is recommended
<b>Remote maintenance</b>	Engineer can check via (optional) GPRS modem or Ethernet (optional)
<b>Certification</b>	
<b>Laser class</b>	Class 1
<b>Installation</b>	
<b>Flange size</b>	ANSI 4" 150lbf
<b>Purge gas</b>	Instrument air (dry and oil free) or nitrogen (dry and oil free) or blower (dry and oil free)
<b>Purge flow</b>	10 – 100l/min (depends on application conditions)
<b>Warm up time</b>	Typically <15 minutes
<b>Environmental</b>	
<b>Operating temperature</b>	-20°C to +55°C
<b>Storage temperature</b>	-20°C to +55°C
<b>Enclosure</b>	IP67 rated
<b>Dimensions</b>	
<b>Length</b>	1.3m

\* Defined for 1m pathlength at 296K and 1 bar. Limit depends on individual application.

## Contact Details:

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## Distributor: