



TDL100-P-HCI

- HCl + moisture
- Single access port installation
- Interference free measurements
- In-situ & fast response



TDL100-P-HCI Tunable Diode Laser Gas Sensor

The **TDL100-P-HCI** from TDL Sensors Ltd is a Tunable Diode Laser Gas Sensor for Stack Monitoring.



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** is a single access port probe
- 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
Hydrogen Chloride + Moisture
Hydrogen Fluoride + Moisture
Ammonia + Moisture + Oxygen
Hydrogen Chloride + Moisture + Oxygen
Hydrogen Fluoride + Moisture + Oxygen
Hydrogen Chloride + Hydrogen Fluoride + Moisture
Carbon Monoxide + Oxygen

Specifications

| | |
|---------------------------------------|---|
| Measurement | |
| Optical pathlength | 1m folded path |
| Detection limit* (HCI) | 0.1ppm (2 σ) |
| Temperature (max) | 500°C |
| Accuracy | 2% of reading |
| Linearity | Better than 1% |
| Resolution | <0.1ppm |
| Span drift | < 4% of measuring range between maintenance intervals |
| Zero drift | Negligible (< 2% of measuring range between maintenance intervals) |
| Response time (T₉₀) | <2s (depending on application conditions) |
| Input/Output | |
| Analogue output | 4–20mA current loop (optional) |
| Digital output | RS232, RS485, modbus (optional), ethernet (optional) |
| Relay output | SPCO rated, 24VDC/280VAC 2A (optional) – maximum of 4 |
| Analogue input | 4–20mA process temperature and pressure reading (optional) |
| Display | Graphic back lit LCD |
| Power | |
| Power supply | 85 - 254 VAC, 50/60 Hz @100VA or 24VDC (optional) |
| Maintenance | |
| Interval | Every 6–12 months is recommended |
| Remote maintenance | Engineer can check via (optional) GPRS modem or Ethernet (optional) |
| Certification | |
| Laser class | Class 1 |
| Installation | |
| Flange size | ANSI 4" 150lbf |
| Purge gas | Instrument air (dry and oil free) or nitrogen (dry and oil free) or blower (dry and oil free) |
| Purge flow | 10 – 100l/min (depends on application conditions) |
| Warm up time | Typically <15 minutes |
| Environmental | |
| Operating temperature | -20°C to +55°C |
| Storage temperature | -20°C to +55°C |
| Enclosure | IP67 rated |
| Dimensions | |
| Length | 1.3m |

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

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