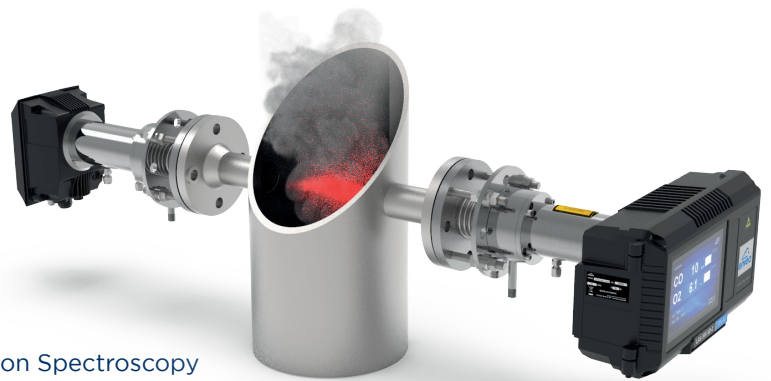


## In Situ Cross duct TDLAS gas analyzer

PROCESS & EMISSIONS MONITORING SYSTEMS



### SPECIFIC FEATURES:

- Tunable Diode Laser Absorption Spectroscopy (TDLAS) technique
- In-situ and non-invasive measurement
- Multi-gas cross-duct monitoring
- Compact and robust system
- Short response time: 2-5 seconds
- High sensitivity
- Interference-free gas measurements
- Absolute measurements: no drift, no calibration required, linear response and high resolution
- Suitable for harsh environments. Unaffected by contaminants - no contact with flue gas
- No sample lines required, eliminating errors due to gas sampling
- Low maintenance and low cost of ownership

### VARIOUS VERSIONS AVAILABLE TO MEET YOUR ANALYTICAL REQUIREMENTS:

- LAS 300XD-2 **CO / O<sub>2</sub>** for carbon monoxide and oxygen monitoring (standard version)
- Other gas combinations are possible; components are to be selected from the following list: CO, CH<sub>4</sub>, H<sub>2</sub>O, O<sub>2</sub>, HCl, HF, NH<sub>3</sub>... (2 gases max.)



### MAIN APPLICATIONS:

Process & emission monitoring for:

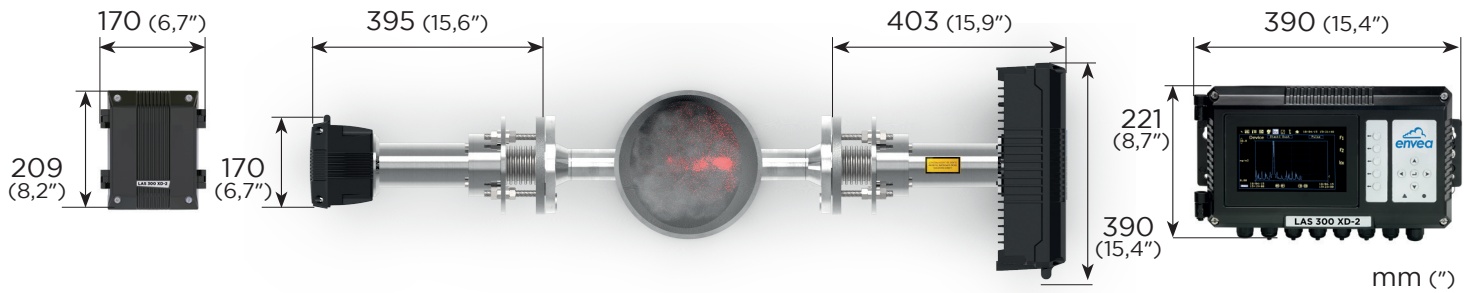
- > Combustion control
- > Power utilities
- > Petrochemical industry
- > Waste incinerators
- > Cement industry
- > Glass industry
- > Pulp and paper
- > Biomass boilers
- > Steel manufacture, etc.

including

**LaserTool®**

advanced software for setup and operations

# Tunable Diode Laser Spectroscopy **LAS 300XD-2**



## TECHNICAL SPECIFICATIONS

Measurement ranges for LAS 300 XD-2 standard version:

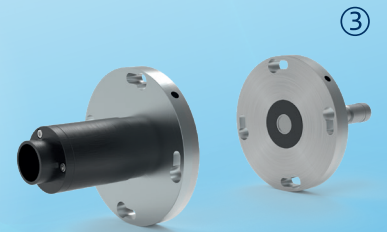
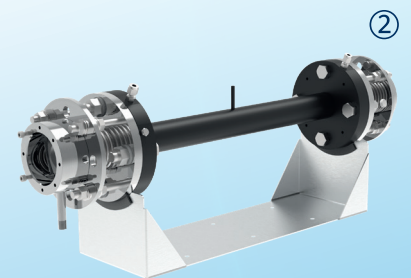
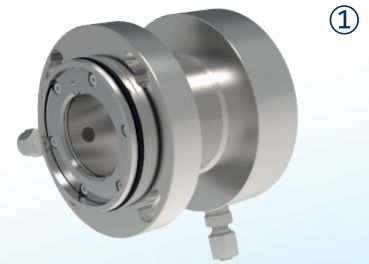
	Min	Max
CO	0 - 500ppm	0 - 1 %
O <sub>2</sub>	0 - 10 %	0 - 100 %

Measurement ranges for other gas components upon request

Accuracy:	≤ ±2% of full scale
Response time (0-90%)	Typically 2-5 s
Linearity:	≤ ±1% of full scale
Max Process gas T°C:	Up to + 1200°C
Max Process gas pressure	2 bar absolute
Display	800 x 480 graphic, mounted on lid or remote
Input signals	Optional temperature and pressure inputs (4-20 mA)
Communication	Modbus RTU
Output signals	x2 analog outputs (4-20 mA), x2 relays
Power supply	+ 24 V DC, ripple and noise 50 mV
Power	25 W when starting-up < 25 W in normal operation
Ambient operating T°C	-20°C to +55°C
Enclosure rating	IP65
Enclosure material	Die-cast aluminium (polyester powder coated)
Mounting flange	DN50 PN16, 2" - 150 lbs, Class 150 (other available)
Mounting flange material	SS 316 L
Air purge	10-50 L/min (depends on application conditions)
Stack/Duct diameter	0.5 up to 20 m (application dependant)

## MAIN OPTIONS:

- IP55 Junction box (for power and signal)
- Connecting cable (USB) RS485
- Choice of flanges
- Remote interface
- In-line span check cell ①
- Audit cell ②
- Optical alignment tool ③
- Purge air unit (blower, filters, flow meters, pressure regulators)



## THE STANDARD LAS 300XD-2 IS SUPPLIED WITH:

- Transmitter and receiver units
- 2x alignment flanges (DN50)
- 2x analog inputs/outputs
- 2x Relay contacts
- Modbus RTU RS485
- LaserTool® software

