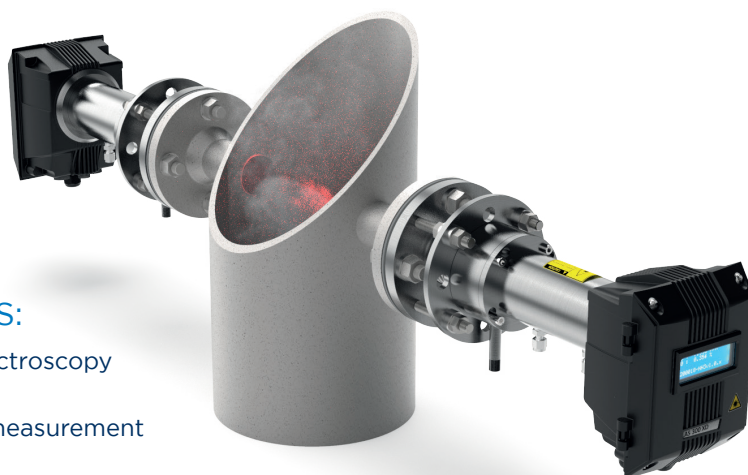


In Situ Cross duct TDLAS gas analyzer

PROCESS & EMISSIONS MONITORING SYSTEMS



SPECIFIC FEATURES:

- Tunable Diode Laser Spectroscopy (TDLAS) technique
- In-situ and non-invasive measurement
- Large dynamic range
- Compact and robust system
- Short response time - 1s response
- 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 corrosion
- No sample lines required, eliminating errors due to gas sampling
- Low maintenance and low cost of ownership

VERSIONS OF THE LAS 300XD ARE AVAILABLE TO MEET YOUR ANALYTICAL REQUIREMENTS:

- LAS 300XD **NH₃** for ammonia (NH₃) and water (H₂O) monitoring
- LAS 300XD **CO** for low and high concentration carbon monoxide (CO) monitoring
- LAS 300XD **HCl** for hydrochloric acid (HCl) and water (H₂O) monitoring
- LAS 300XD **HF** for hydrofluoric acid (HF) monitoring
- LAS 300XD **O₂** for oxygen (O₂) monitoring



MAIN APPLICATIONS:

Process & emission monitoring for:

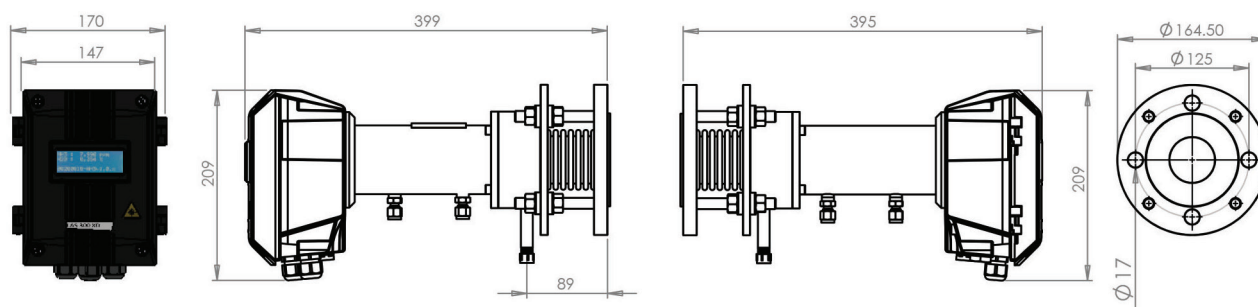
- > Scrubber technology
- > Combustion control
- > Chemical industry
- > Fertilizer plants
- > Waste incinerators
- > Cement industry
- > Glass industry
- > Pulp and paper
- > Biomass boilers
- > Petrochemical industry

including

LaserTool®

advanced software for setup and operations

Tunable Diode Laser Spectroscopy **LAS 300XD**



TECHNICAL SPECIFICATIONS

Measurement ranges:

NH ₃ + H ₂ O	0 - 15 ppm / 0 - 500 ppm + 0 - 5% / 0 - 50%
HCl	0 - 10 ppm / 0 - 3000 ppm + 0 - 5% / 0 - 50%
HF	0 - 100 ppm
CO (low)	0 - 500 ppm / 0 - 1%
CO (high)	0 - 1% / 0 - 100%
O ₂	0 - 10% / 0 - 100%

Accuracy: $\leq \pm 2\%$ of full scale

Response time (0-90%) Typically 2-5 s

Linearity: $\leq \pm 1\%$ of full scale

Max Process gas T°C:

NH ₃ + H ₂ O / HCl + H ₂ O / HF	+400°C
CO (low) / CO (high) / O ₂	+1200°C

Max Process gas pressure 2 bar absolute

Display 4x 20 alphanumeric LED backlit LCD

Input signals Optional temperature and pressure signals inputs (4-20 mA)

Communication Modbus RTU / Ethernet

Output signals x2 analog outputs (4-20 mA), x2 relays

Power supply + 24 V DC, ripple and noise 50 mV

Power 15 W when starting-up the LAS 300 XD
< 15 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

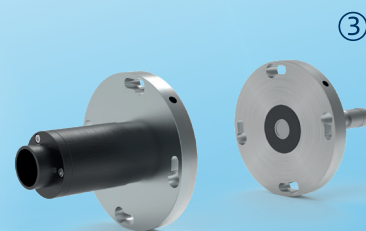
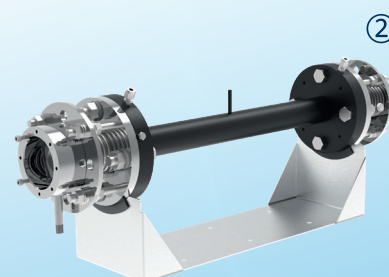
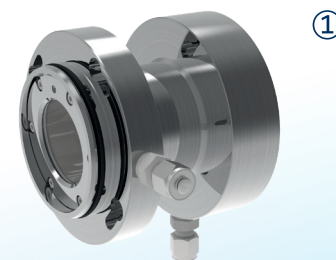
Mounting flange material SS 316 L

Air purge 10-50 L/min
(depends on application conditions)

Typical Stack/Duct diameter 0.5 to 20 m (depends on application conditions)

MAIN OPTIONS:

- IP55 Junction box (for power and signal)
- Purge air unit (blower, filters, flow meters, pressure regulator)
- In-line span check cell ①
- Weather protection covers
- Specific flanges
- Remote interface
- Audit cell ②
- Optical alignment tool ③



THE STANDARD LAS 300XD IS SUPPLIED WITH:

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

