

Portable TDLAS HCL/HF/NH3 GAS ANALYZER eLAS-200P



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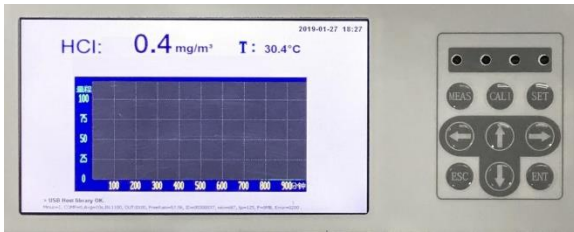


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Principle :

laser gas analyzer using a Tunable Diode Laser Absorption Spectroscopy (TDLAS), the realization of the non-contact measurement in high temperature, high pressure, high dust and other harsh test conditions. High selective laser based on frequency, analyzer has good performance of anti interference. compared to the traditional analysis method, reducing the complex sampling system, flexible installation and easy to use, greatly reduce the manual installation and maintenance workload



Applications

Process control:

SCR, incineration & combustion processes

Emission monitoring :

Power generation , engine development, waste incineration furnaces

Chemical engineering:

production control & monitoring

leak detection, refrigeration, toxic gases

Others:

environmental comparison and acceptance, emergency detection, instrument calibration, self-examination, laboratory gas detection and analysis of multi-level environmental monitoring stations, third-party testing institutions, fixed pollution sources and gaseous pollutants, coal-fired power plants, gas power plants, cement plants, steel plants, etc.



Features

Extremely high selectivity to the target gas

Functional safety, continuous status reporting

Long lifetime (10+ years)

Fast response times

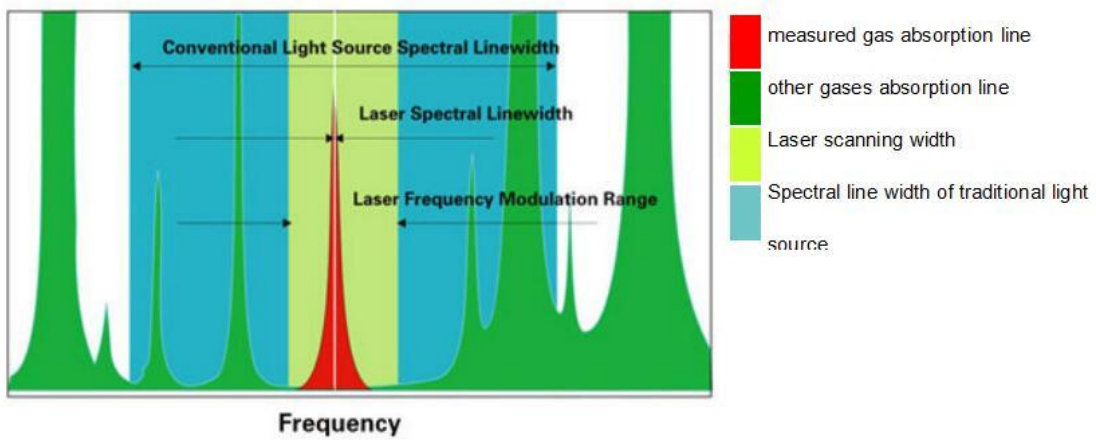
Low power consumption possible

Very low cost-of-ownership (no regular replacement and/or calibration)

Low cost of the gas sensor through excellent scaling costs of the components

Measurement principle of laser gas analyzer

- A basic TDLAS setup consists of tunable diode laser light source, transmitting (i.e. beam shaping) optics, optically accessible absorbing medium, receiving optics and detector/s. The emission wavelength of the tunable diode laser, viz. VCSEL, DFB, etc., is tuned over the characteristic absorption lines of a species in the gas in the path of the laser beam. This causes a reduction of the measured signal intensity, which can be detected by a photodiode, and then used to determine the gas concentration and other properties as described later



Heated Filter Integrated in Heated Sample Line



Benefits

- Quick and easy ready for use
- Easy handling
- Different sample tubes adaptable
- Easy to change heated filter element
- No condensate formation
- Excellent insulation
- Optimum heat distribution

FEATURES

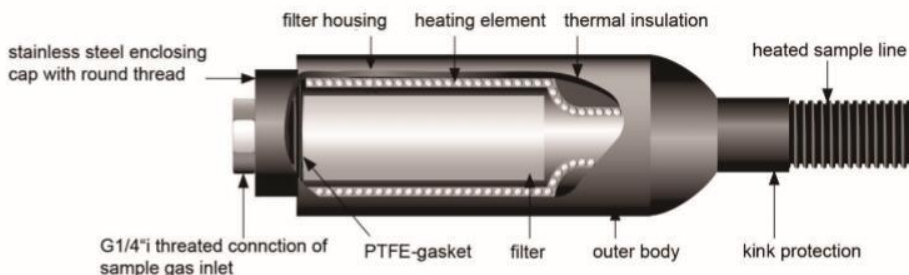
- Heated sampline line with integrated filter
- Completely heated up to 200degree
- Filter housing stainless steel SS316Ti(PTFE-coated or Hastelloy as option)
- Ceramic filter element(5um or 20um)
- Jacket PA-Corrugated hose or PA-braid
- Fixed or interchangeable core
- Completely assebled
- Ready for connection with temperature controllers series HT

Specifications of Heated Sample Line

TECHNICAL DATA

Model	JHAF
Description	sample gas filter integrated in the heated sample lines JH3F(R) & JH3FG(R)
External protection jacket	PA-corrugated hose or PA-braid, black
Inner core	DN 4/6 fixed or interchangeable, DN 8/10 fixed
Area of application	mobile installation indoor and outdoor
Operating data	
Temperature	max. 200°C
Operating pressure	max. 2 bara
Ambient temperature	-40°C....+60°C
Construction	
Filter element	ceramic, 5 µm or 20 µm, 30/15 x 80 mm
Filter housing dimensions / material	Ø 70 mm, L = 195 mm / SS316Ti or Hastelloy resp. PTFE-coating as option
Material inner core	PTFE, PFA as option
Heating element	design according to DIN humidity protected with protection braid
Thermal insulation	closed-pore waterproof silicone hose, thermally stabilised, or thermo fleece
End cap filter	hard cap
External diameter JH3FG(R) / JH3F(R)	DN 4/6 mm: 32 / 42 mm DN 8/10 mm: 42(48) / 42 mm
Minimum bending radius	50 mm
Electrics	
Power supply	230 VAC 50....60Hz or 115 VAC 50....60Hz
Power consumption	100 W/m
Connection cable	3 m long
Connection plug	7-pole-plug for connection of temperature controller HT-43 and HT-55 HANQ8-plug for connection of temperature controller HT-41
Sample tubes 1m, Ø 10 mm and stainless steel fitting 1/4" NPT a - 10 mm	SS316 up to 600°C Hastelloy up to 900°C Kanthal up to 1200°C

Design integrated filter



More information about heated sample lines JH3F(R) / JH3FG(R) and suitable temperature controllers can be found in this chapter (2). For mobile applications a temperature controller integrated in the heated sample line is available (see data sheet JH3FG & JH3FGR in this chapter(2)).

Please consult JCT sales for possible filter and heated sample line configurations.



Specifications for HCL Analyzer

Measured gas	HCL/HF/NH3 concentration
Method	Tunable Diode Laser Spectrometry (TDLAS)
Range	0-50ppm, 0-100ppm,0-500ppm (Customized)
Accuracy	± 2% full scale reading depending on integration stability (temperature & pressure)
Displayed resolution	0.1ppm
Linearity	≤1%FS
Repeatability	≤1%FS
Response time	≤2S
Drift	≤1%FS
Cell Temperature	190°C

Power Supply	AC110-240VAC / 50/60Hz
Warm up time	15 minutes
Interface	USB port
Ambient Temperature	Temp: -10-50°C Humidity: 0-90%RH
Dimension	612mm*313mm*212mm

