

Agasthya 2023 Series Portable Flue Gas Analyzer Model BI FLEXI



Specification:

PARAMETER	RESOLUTION	ACCURACY	RANGE
PARTICULATE MATTER MEASUREMENT - LIGHT SCATTERING			
PM 2.5	1 µg/m ³	± 10 µg/m ³	0 - 1000 µg/m ³
PM 10	1 µg/m ³	± 25 µg/m ³	0 - 1000 µg/m ³
GAS MEASUREMENT - ELECTROCHEMICAL BASED SENSOR			
Oxygen (O ₂)	0.1%	± 2% of FS	0 - 21%
Carbon Monoxide (CO) (H ₂ Compensated)	1 ppm	± 20 ppm < 500 ppm, ± 5% of FS > 500 ppm	0 - 10000 ppm
Carbon Monoxide (CO) (High Range)	0.01%	± 5% of FS	0 - 10%
Nitric Oxide (NO)	1 ppm	± 5 ppm < 100 ppm, ± 5% of FS > 100 ppm	0 - 5000 ppm
Nitric Oxide (NO) (Low Range)	1 ppm	± 2 ppm < 30 ppm, ± 5 ppm > 30 ppm	0 - 500 ppm
Sulphur Dioxide (SO ₂)	1 ppm	± 5 ppm < 100 ppm, ± 5% of FS > 100 ppm	0 - 5000 ppm
Hydrogen Chloride (HCl)	1 ppm	± 5 ppm	0 - 200 ppm
Hydrogen Fluoride (HF)	0.1 ppm	± 0.5 ppm	0 - 30 ppm
Hydrogen Sulphide (H ₂ S)	1 ppm	± 5 ppm	0 - 500 ppm, 0 - 1000 ppm
Hydrogen (H ₂)	1 ppm	± 5 ppm	0 - 1000 ppm, 0 - 10000 ppm
Ammonia (NH ₃)	1 ppm	± 5 ppm	0 - 500 ppm, 0 - 1000 ppm
Chlorine (Cl ₂)	1 ppm	± 5 ppm	0 - 500 ppm, 0 - 1000 ppm
GAS MEASUREMENT - INFRARED (IR) BASED SENSOR			
Carbon Dioxide (CO ₂)	0.1%	± 3% of FS	0 - 1%, 0 - 5%, 0 - 20%, 0 - 100%
Methane	0.1%	± 3% of FS	0 - 1%, 0 - 5%, 0 - 20%, 0 - 100%
Total Hydrocarbon (THC)	0.1%	± 3% of FS	0 - 1%, 0 - 5%, 0 - 100%
CALCULATED VALUE			
Carbon Dioxide (CO ₂)	0.1%	±0.3 % of FS	0 - 20%
Velocity	0.1 m/s	± 2% of FS	0 - 50 m/s
Efficiency	0.1%	±1 % of FS	0 - 120%
Losses	0.1%	±1 % of FS	0 - 99.99%
Excess Air	0.1%	± 0.2 %	0 - 2885%
CO/CO ₂ Ratio	0.0001%	± 0.0001%	0 - 0.9999
Poison Index	0.01%	± 0.01%	0 - 99.99%

*Inconel Probe is available for 0 - 1200° C temperature at additional price.
Other gases on request

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Features

- Automatic zeroing when the analyzer is switched ON
- All parameters programmable
- 24 common fuels with 4 extra programmable fuels

Unit Specification

- Ambient temperature : 0-50°C
- Humidity : 5-95 % rh
- Power supply : 12V/24V DC Adaptor
- Area classification : General purpose

Combination of Technologies for Gas Concentration Measurement

- NDIR Sensors
- Electrochemical Sensors

Total Solution for Boiler Efficiency Analysis Combined with Emission Monitoring

- Efficiency
- Losses
- Excess air
- Poison index
- Net temperature
- Stack temperature
- Ambient temperature
- Derived CO₂ & NO_x
- Pressure
- Velocity
- Flow Rate

Programmable Units of Measured Gas Concentration

- Gas concentrations can be displayed either in ppm or mg/m³
- Gas concentrations can be displayed either in ppm or µg/m³ on request

Data Management

- Can store up to 150 sets of data
- Auto store and averaging option for all gas concentration
- Powerful windows software for analyzer data communication
- All measured values, stored values or displayed can be printed on the external printer

Hardware Capabilities

- 32-bit Cortex-M3 ARM processor
- Rechargeable lithium ion battery 4400 with mAh
- Pump with Suction capacity of 500 mbar Absolute
- Printer interface
- Borosilicate filter with 0.1 micron porosity
- Gas probe with thermocouple and condensate trap
- USB Communication Port

Optional Accessories

- S Type Pitot Tube for Velocity measurement
- Thermal Printer
- High Temperature Probe for temperature upto 1200 deg C. MOC Inconel

Applications



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