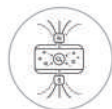


NDIR
Technology



Electrochemical
Technology



Paramagnetic
Technology



Zirconia
Technology



Agasthya 2026 Series

BI FLEXI PRO

Portable Flue Gas Analyzer



100%
by BHOOMI



8 Hour
Operation
(with Peltier Cooler)



Flow
Control



Auto
Compensation



Large
Storage



Rugged
Portability



7 Gas
Measurement

BI FLEXI PRO

Portable Flue Gas Analyzer

Agasthya 2026 Series

Standard Arrangement



- Portable analyzer unit
- Sampling probe with thermocouple
- Condensate trap & filters
- Battery & power adaptor
- Communication cable & software
- Moisture & Dust Filter

Hardware Capabilities



- 32-bit Cortex-M3 ARM processor
- Rechargeable Li-ion battery
- High-efficiency pump
- Integrated printer interface
- Borosilicate filter (0.1 micron)
- Gas probe with thermocouple & condensate trap
- Communication - USB, Wifi, Bluetooth
- Flow Sensor for Flow Regulation

Comprehensive Analysis Capabilities



Provides a complete solution for:

- Efficiency calculation
- Losses analysis
- Excess air measurement
- Poison index monitoring
- Net & stack temperature
- Velocity & flow rate
- Pressure monitoring
- Derived CO₂ & Nox
- 24 Common fuels with 4 extra programmable units

Data Management



- Upto 5,00,000 dataset with SD card
- Auto logging & averaging of gas values
- Windows-based software for communication via USB cable & Wifi
- Printable reports via external bluetooth printer

Optional Accessories



- S-Type Pitot Tube (velocity measurement)
- Bluetooth Thermal Printer
- High Temperature Probe (up to 1200°C, Inconel)
- Equipped with Peltier Cooler & Peristaltic Pump for efficient automatic condensate removal, ensuring moisture-free gas analysis

BI FLEXI PRO

Portable Flue Gas Analyzer

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APPLICATIONS

- Boiler & Furnace Flue Gas Analysis
- Industrial Emission Monitoring
- Stack Gas Measurement
- Combustion Optimization
- Environmental Compliance Testing
- Process Industry Monitoring

PROGRAMMABLE UNITS

- Gas concentration in ppm,%
- Optional display in ppm,%

TECHNICAL SPECIFICATIONS

Table 1:

Parameter	Resolution	Accuracy	Range	Code
Process Parameters				
Flue Gas Temperature	0.1°C	± 2.0°C	0–600°C – With SS Probe; 0–1200°C – With Inconel	600 1200
Pressure	0.1 mbar	± 2% of FS	± 150 mbar	P
Velocity	0.1 m/s	± 2% of FS	0–50 m/s	
Gas Measurement – NDIR				
Carbon Monoxide (CO)	0.01%	± 5% of FS	0–10%	1
Carbon Dioxide (CO ₂)	0.1%	± 1% of FS	0–20%	2
Gas Measurement – Electrochemical Technology				
Oxygen (O ₂)	0.1%	± 2% of FS	0–25%	3
Carbon Monoxide (CO) (H ₂ Compensated)	1 ppm	± 20 ppm < 500 ppm, ± 5% of FS > 500 ppm	0–10000 ppm	4
Carbon Monoxide (CO)	0.01%	± 5% of FS	0–10%	5
Nitric Oxide (NO)	1 ppm	± 5 ppm < 100 ppm, ± 5% of FS > 100 ppm	0–5000 ppm	6
Nitric Oxide (NO)	1 ppm	± 2 ppm < 30 ppm, ± 5 ppm > 30	0–500 ppm	7
Nitrogen Dioxide (NO ₂)	1 ppm	± 5% of FS	0–1000 ppm	8
Sulphur Dioxide (SO ₂)	1 ppm	± 5 ppm < 100 ppm, ± 5% of FS	0–5000 ppm	9
Gas Measurement – Paramagnetic				
Oxygen (O ₂)	0.01%	± 1% of reading	0–25%, 0–100%	10
Gas Measurement – Zirconia (With Insulated Chambers)				
Oxygen (O ₂)	0.01%	± 1% of FSD	0–25%	11
Calculated Values				
Carbon Dioxide (CO ₂)	0.1%	± 0.3% of FS	0–20%	
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	0.01%	± 0.01%	0–0.99%	
Poison Index	0.01%	± 0.01%	0–99.99%	

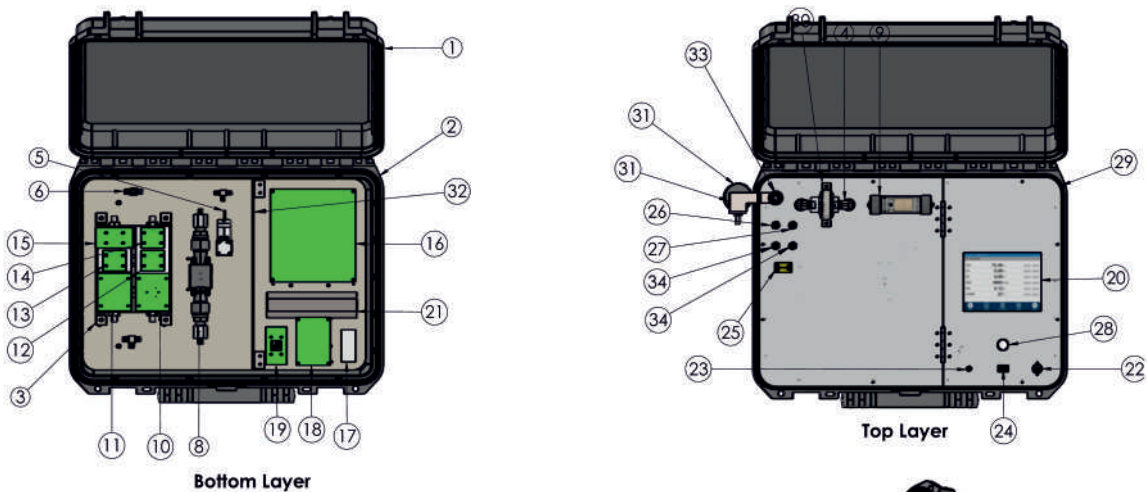
* 24 Common fuels with 4 extra Programmable Units

BI FLEXI PRO

Portable Flue Gas Analyzer

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DIMENSIONS & PARTS



NOTES:

- 1.This diagram represents the internal layout of the flue gas analyzer and is intended for reference only.
- 2.Component locations are indicative and may vary based on configuration or design revisions.
- 3.Ensure correct connections at Sample In, Flue Gas, Purge In, and Drain ports.
- 4.Follow all safety precautions during operation and maintenance.
- 5.Servicing should be carried out only by trained personnel.
- 6.Ensure sample gas is clean and free from excessive moisture and particulates.

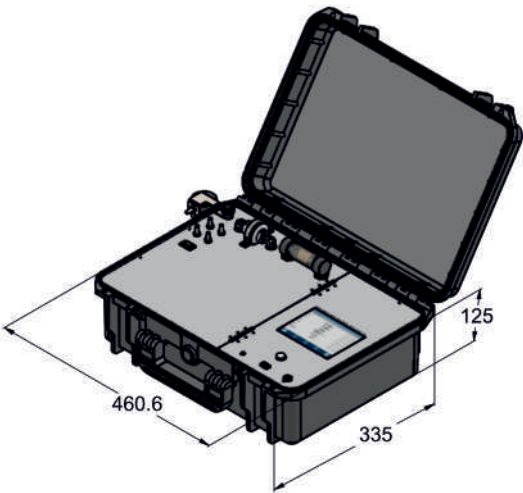


Table 2:

Sr. No.	Component Name	Description / Function
1	Enclosure	Protective housing for internal components
2	Drain Pump	Removes condensate/liquid from the system
3	Control Unit (MCU)	Processes sensor data and controls system operation
4	Battery	Provides backup power for the system
5	USB converter	Used to upload firmware/code from a PC to the MCU
6	BMS card	The BMS card is used to monitor, protect, and manage the battery, including voltage, current, temperature, and cell balancing
7	PR card	Used to measure and monitor pressure from a pressure sensor
8	Flow sensor	A flow sensor is used to measure and monitor the flow rate of a liquid or gas
9	Sensor Unit	A sensor unit is used to mount and monitor multiple sensors, including gas sensors
10	Moisture filter	A moisture filter is used to remove moisture and water from the gas sample before it reaches the sensors
11	SS Filter	It is used to remove dust, particles, and impurities from the gas
12	PT100 Adapter	It is used to connect the PT100 temperature sensor to the controller
13	Inline Filter	It is used to remove fine dust, particles, and impurities from the gas
14	Display Unit (5.6")	Displays readings, status, and user interface
15	Power Switch	Turns the system ON/OFF
16	Charging Connector	External interface for battery charging
17	USB Port	Communication interface for data transfer/service
18	Status LED	Indicates system status and operation

BI FLEXI PRO
Portable Flue Gas Analyzer

Agasthya 2026 Series

SAMPLE ORDER CODE FORMAT

BI Flexi Pro	600	P,3,5,6,8,9	5	PC	0	PT	5	0
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Code	Description
BI FLEXI PRO	Model No.
600	Flue Gas Temperature
P	Pressure
3	O2, 0–25%, using Electrochemical
5	CO, 0–10%, using Electrochemical
6	NO, 0–5000 ppm, using Electrochemical
8	NO2, 0–1000 ppm, using Electrochemical
9	SO2, 0–5000 ppm, using Electrochemical
5	0.5 Stack Pressure Probe Length
PC	Peltier Cooler
0	With No Sampling Tube
PT	With Pitot Tube
5	0.5 m Pitot Tube
0	Not Required (Printer Option)

ORDERING INFORMATION

Code	Description						
BI FLEXI PRO		/ XX	/ XX	/ XX	/ XX	/ XX	/ XX
Flue Gas Temperature , Gases & Technology							
XXX-XXXXXXXX	Refer Table 1						
Stack Pressure Probe Length							
5	0.5 m	5					
10	1 m	10					
15	1.5 m	15					
Cooler Option							
PC	With Peltier Cooler		PC				
WPC	Without Peltier Cooler		WPC				
Sampling Probe Length							
0	No Sampling Probe			0			
05	0.5 m Sampling Probe Length			05			
10	1 m Sampling Probe Length			10			
15	1.5 m Sampling Probe Length			15			
Pitot Tube							
PT	With Pitot Tube				PT		
NPT	Without Pitot Tube				NPT		
Length of Pitot Tube							
0	No Pitot Tube					0	
5	0.5 m Pitot tube					5	
10	1 m Pitot Tube					10	
15	1.5 m Pitot Tube					15	
Printer							
0	Not Required						0
1	Required						1

BI FLEXI PRO

Portable Flue Gas Analyzer

Agasthya 2026 Series

Our NPL & TUV Certified Products

Continuous Emission
Monitoring System
BI 7000



Online Stack Flow
Meter
BI 7300



Online Stack
Dust Monitor - Opacity
BI 7010



Tribo Electric Dust
Monitor
BI 7020



Our Other Gases & Liquid Analyzers

Insitu Zirconia
Oxygen Analyzer
BI 2100, BI 2000



Portable Flue
Gas Analyzers
BI 1XX, BI 2XX



Process Gas Analyzers
BI 3XX, 4XX, 6XX
BI 4XXX, BI 8000, BI 7400



Renewable Energy Gas
Analyzer **BI 7100, BI 7110,**
BI 7120, BI 7130



Ambient Air Quality
Monitoring System
BI 9000



Multiparameter Water Quality
Monitoring System
BI 1000



Water Sensors
BI XXXX



Single & Dual
Channel Controllers
BI 13XX



Panel Mount

Wall Mount