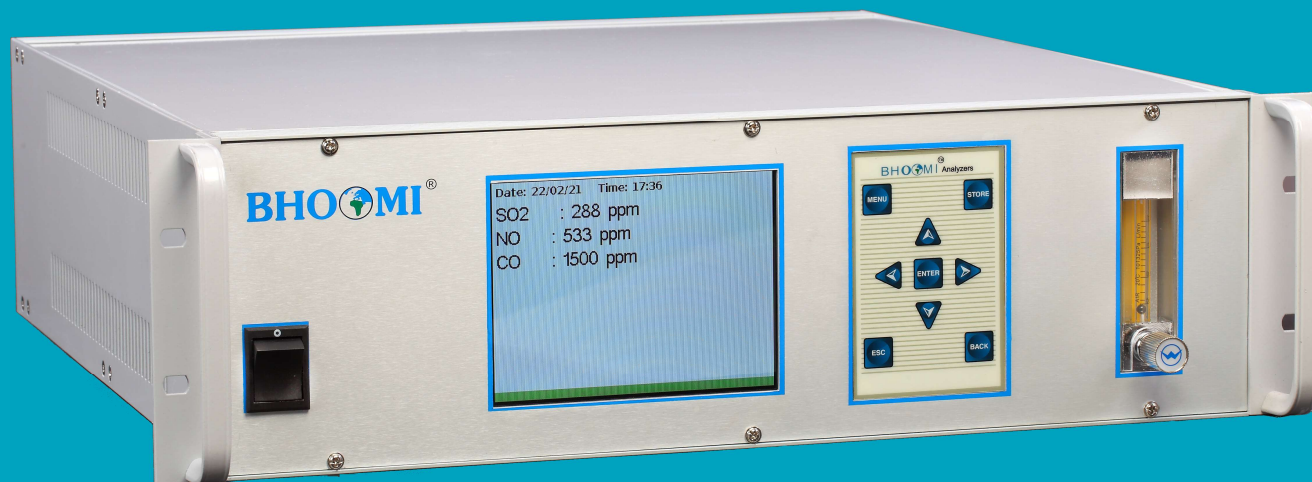


## Agasthya 2013 Series Continuous Emission Monitoring System Model BI 7000 NDIR



The Agasthya 2013 Series Continuous Emission Monitoring System BI 7000 NDIR is designed in compliance with emission norms to measure gas pollutants emitted by various process industry and to meet the needs of industries requiring cost effective and reliable multiple gas analyzer solutions.

**BI7000 is TUV certified for CE mark & Performance as per EN15267 standard.**

The technology employed are of maximum reliability and accuracy to ensure high degree of performance & long life.

BI7000 is ideal solution to protect initial investment & can adapt to any process application with modular design & can house up to eight gas sensors with scalable ranges for each gas. Manufactured for use in hostile or friendly environments the BI 7000 Continuous Emission Monitoring System maintains high levels of gas selectivity. All packed into a robust, attractive, industrial enclosure.

### Features

- ❖ Tried and tested technology with proven reliability
- ❖ Wide range of gas selectivity & scalable ranges available for each gas
- ❖ 5.7" TFT Keypad Display
- ❖ The best price performance on the market - designed with user requirements foremost in mind
- ❖ Isolated 4-20 mA analog output for each gas
- ❖ RS 485, supports MODBUS protocol
- ❖ High / Low Gas, low flow & other programmable events available
- ❖ Highly efficient automatic purge & drain system
- ❖ Inbuilt interface for Remote Calibration Unit
- ❖ Auto & semi auto calibration facilities

## Agasthya 2013 Series Continuous Emission Monitoring System Model BI 7000 NDIR

### Technical Specification:

Parameter	Resolution	Accuracy	Scalable Range
Carbon Monoxide	1 ppm	±1% FSD	0-500 ppm
Nitric Oxide	1 ppm	±1% FSD	0-1000 ppm
Sulphur Dioxide	1 ppm	±1% FSD	0-1000 ppm
Carbon Dioxide	0.1%	±1% FSD	0-20%
Hydrocarbon	0.1%	±1% FSD	0-5%

### Analyzer Specification:

- ❖ Repeatability : 1% FS
- ❖ Zero Drift : <±1% per week of Span
- ❖ Span Drift : <±1% per week of Span
- ❖ Response : T90 < 15 sec
- ❖ Operating Temperature : 4°C to 65°C
- ❖ Analog output : Isolated and linear 4-20mA analog output for each gas
- ❖ Digital Communication : RS 485, Supports MODBUS Protocol
- ❖ Relay Output : 2 Nos. Potential free contact for alarms
- ❖ Power Supply : 110/230 VAC, 50 Hz
- ❖ Programmable events for High / Low Alarms
- ❖ Auto & semi auto calibration facilities

### System Components

- ❖ **Heated Sampling Probe**
  - Operating temperature : Max. 400°C
  - Mounting : Flange Type
  - Max. working pressure : 6 bar
  - Voltage : 110/230 V, 50 /60 Hz
  - Heating : Self regulating +180°C
  - Ambient temperature : -20 to +80°C
  - For dust concentration : Upto 5 g/m<sup>3</sup>
  - MOC : SS 316
- ❖ **Heated Sample Gas Line**
  - Process Tube : PTFE / SS
  - Process Tube Size : 1/4 inch OD
  - Heating Element : Constant watt type
  - Thermal Insulation : Non - Hygroscopic Fiber Glass
  - Outer Sheath : Extruded UV Resistant FRLS PVC
  - Operating Voltage : 230 V AC
  - Watt Density : 45 W/m
  - Length : To be specified by client
  - Max. Operating Temperature : 200°C
  - Temperature Sensor : In built RTD
  - Process Connection : Flanged Type
  - Power/Control Connection : Lead cable (3 Wire), 2 Meter for both power & control

## Agasthya 2013 Series Continuous Emission Monitoring System Model BI 7000 NDIR

### Sample Conditioning Unit

#### ❖ Smart unit

Aspirator/Pump for sampling flue gas  
Pre and post cooler fine filters to remove drain, dust and mist in sample gas  
Auto drain and auto purging (blow back) facilities  
2 way solenoid valves for switching, sampling, purging, draining and calibration  
Flowmeter to regulate and monitor the flow of sample gas  
Drain pump for continuous removal of condensate

#### ❖ Cooler

Sample gas flow range : 1 - 3 LPM (2.1- 6.4 SCFM)  
Inlet condition at rated flow : 150°C @ 12% H<sub>2</sub>O , 2.5 LPM  
Outlet dew point at rated flow : 4°C  
Maximum inlet temperature : 200°C for SS  
Ambient temperature range : 0.6 - 40°C  
Power supply : 90 - 240 VAC, 50/60 Hz  
Operating Pressure : 0.75 - 1.25 Bar w.r.t. abs

#### ❖ NO<sub>x</sub> Converter

High NO<sub>2</sub> conversion capability  
Enclosure : 19 inch Housing  
Working temperature : 400°C  
Sample gas pressure : up to 1.5 bar  
Warm-up time : 30 min  
Sample gas flow : up to 120 l/h  
Sample gas temperature : 5 to 80°C  
Ambient temperature : 5 to 50°C  
Connection : 1/4" f NPT.  
Materials : SS316, PTFE, Viton

#### ❖ Cabinet

Industrial Cabinet  
Meets IP 54 standard  
Inbuilt air conditioning system  
Automatic cabinet illumination when door open  
Earthing bar assembly  
180 degree door opening  
Standard Dimension: 1500 (H) x 600 (W) x 800(D) mm

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**BHOOMI**<sup>®</sup> Process Management Pvt. Ltd.  
(Formerly known as Bhoomi Analyzers)

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