

Agasthya 2013 Series Continuous Emission Monitoring System Model BI 7000 NDUV



The Agasthya 2013 Series Continuous Emission Monitoring System BI 7000 NDUV 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.

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



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Technical Specification:

Parameter	Resolution	Accuracy	Scalable Range
Nitrogen Dioxide	1 ppm	±1% FSD	0-1000 ppm
Sulphur Dioxide	1 ppm	±1% FSD	0-1000 ppm
Chlorine	1 ppm	±1% FSD	0-30 ppm
Hydrogen Sulphide	1 ppm	±1% FSD	0-50 ppm

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
 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 $: Max. 400^{\circ}C$ Mounting : Flange Type

Max. working pressure : 6 bar

Voltage : 110/230 V, 50/60 HzHeating $: \text{Self regulating } +180^{\circ}\text{C}$

 $\begin{array}{lll} \mbox{Ambient temperature} & : -20 \ \mbox{to} + 80\ensuremath{^{\circ}\mbox{C}} \mbox{C} \\ \mbox{For dust concentration} & : \mbox{Upto 5 g/m}^3 \\ \mbox{MOC} & : \mbox{SS 316} \end{array}$

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



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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 $:150^{\circ}\text{C} \ @ 12\% \ H_2\text{O}$, 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

❖ NOx Converter

High NO₂ conversion capability

Enclosure : 19 inch Housing

Working temperature $:400^{\circ}\text{C}$ Sample gas pressure :up to 1.5 barWarm-up time :30 minSample gas flow :up to 120 l/hSample gas temperature $:5 \text{ to } 80^{\circ}\text{C}$ Ambient temperature $:5 \text{ to } 50^{\circ}\text{C}$ 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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