

Agasthya Series 2013 Continuous Emission Monitoring Systems MODEL BI 7000

- TUV certified for performance as per EN 15267 standard for clauses 10.9,10.10,10.11
- TUV certified for CE mark

“The Agasthya Series BI 7000 is designed to meet the needs of organizations requiring cost effective and reliable multiple gas analyzer solutions that meet international standards. The technology employed is NDIR which is tried and tested to ensure that user experiences maximum reliability and accuracy.

Up to twelve gases can be analyzed simultaneously with scalable ranges for each gas. The Agasthya Series BI 7000 is an ideal solution to protect initial investment & long lasting performance.”

Designed for the use in hostile or friendly environments. The Agasthya Series BI 7000 maintains high levels of gas selectivity wherever installed. All packed into a robust, attractive, industrial enclosure.



Features

- 32-Bit Cortex-M3 ARM Processor
- Normal Display
- The best price performance on the market - designed with user requirements foremost in mind
- Tried and tested technology with proven reliability
- Scalable ranges available for each gas
- Wide range of gas selectivity
- Unit programmable in ppm & mg/Nm³
- Isolated 4-20 mA analog output for each gas
- RS 485, supports MODBUS protocol, Ethernet & GPRS as option
- High / Low Gas, low flow & other programmable events available
- Highly efficient automatic purge & drain system
- Remote Calibration Unit is compatible to interface with any Server

Bhoomi Advantages

- High quality products at low cost of ownership
- A truly trouble - free sales and customer service experience
- Spares and accessories availability guaranteed for years at reasonable price
- Team includes well trained & qualified engineers

Technical Specification

GAS OPTION - NDIR			
PARAMETER	RESOLUTION	ACCURACY	SCALABLE RANGE
Carbon Monoxide	1 ppm	±1% of FS	0 - 5000 ppm
Nitric Oxide	1 ppm	±1% of FS	0 - 1000 ppm
Sulphur Dioxide	1 ppm	±1% of FS	0 - 1000 ppm
Carbon Dioxide	0.1%	±1% of FS	0 - 20%
Hydrocarbon	0.1%	±1% of FS	0 - 5 %
NDUV			
Chlorine	1 ppm	±1% of FS	0 - 30 ppm
Hydrogen Sulphide	1 ppm	±1% of FS	0 - 200 ppm
TDLS			
Hydrogen Chloride	1 ppm	±1% of FS	0 - 200 ppm
Hydrogen Fluoride	1 ppm	±1% of FS	0 - 30 ppm
ZIRCONIA			
Oxygen	0.1%	±1% of FS	0 - 30%

Analyzer has the provision to display all gas readings corrected with reference to O₂

Features

- Sensor Technology : Non Dispersive Infrared Absorption (NDIR), Zirconia, Non Dispersive Ultraviolet(NDUV), Tuneable Diode Laser Spectrometry (TDLS)
- 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
- Isolated and linear Signal output : 4-20mA analog output
- Digital Communication : RS 485, Supports MODBUS Protocol, Ethernet & GPRS as option
- Potential free contact output : 2 Nos. for alarms
- Power Supply : 110/230 VAC, 50 Hz
- Programmable events for High / Low Alarms
- Auto & semi auto calibration facilities

System Components

Non heated sampling probe

- Particulate filter size : 5 micron
- Probe diameter : 55 mm
- Probe length : 50 mm to 1500 mm
- Probe material : SS, Titanium
- Mounting : Flange type
- Max temperature : 1400°C
- For dust concentration : Upto 5 g/m³

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/m³
- MOC : SS 316

Non heated Sample Gas Line

- Material : PTFE
- Dimension : 1/4 inch OD

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

Sample Conditioning Unit**a) 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

b) Cooler

- Sample gas flow range : 1 - 3 LPM (2.1- 6.4 SCFM)
- Inlet condition at rated flow : 150°C @ 12% H₂O , 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

c) NO_x Converter

- High NO₂ 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

d) 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 : 800mm D x 600mm W x 1500mm H

Remote Calibration System

Remote calibration module consists of

- Panel with certified cylinders and automation for calibration
- Software with User Interface for remote calibration
- Compatible to interface with any Server

Features

- Signal Validation
- Calibration status
- Calibration log
- Calibration trend / Graphical view during calibration
- Calibration Setup Information
- Cylinder Pressure / Flowrate (OPTIONAL)

BHOOMI[®] ANALYZERS

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