

Gas Analysis System

GAS



GAS was historically used as a system to monitor flue gas for Oxygen (O₂), Carbon Monoxide (CO) and Carbon Dioxide (CO₂), Sulfur Dioxide (SO₂), and Oxides of nitrogen (NO_x) provide information for combustion control in 2 industrial norms. They are currently used as a means to comply with local air emission standards. Facilities employ the use of GAS to continuously collect records and report the required emissions data.

The standard GA system consists of a sample probe, filter, sample line, and gas conditioning system including a sample gas pump, sample gas cooler, calibration gas system, and a series of gas analyzers that reflect the parameters being monitored. Typically monitored emissions include: sulfur dioxide, nitrogen oxides, carbon monoxide, carbon dioxide, hydrogen chloride, and oxygen.

AXIS has experience in the Engineering & Manufacturing of Gas Conditioning Systems, mainly for GAS. Our skilled organization is managing the whole project from design to commissioning and after-sales services. Our references are Chemical plants, Power plants, Petrochemicals, the Food industry, and many others. High-quality operation conforms to ISO9001 Quality Management System Standard.

These systems must be professionally designed and the components employed in the systems should be specifically built for demanding applications.

AXIS's success and growth in this highly competitive market have depended on one credo "DO NOT COMPROMISE". The challenge for us is to continually improve the range of our products specifically designed for sample conditioning systems.

FEATURES

- » Single or multiple from 2 to 5 Probes
- » Automatic or Manual Blowback/Calibration options
- » Operation & Maintenance comfort in any design
- » Suitable for area classification like Zone 1 & 2
- » Panel Ingress protection class up to IP66 can also be made available
- » Heat management in the panel to ensure better performance of the system in harsh environments. Keeping track of ambient temperature and/or condensation possibility to ensure high reliability of panel

ADVANTAGES

- » Easy to quote, order and execute
- » Saving almost 20 - 40% of the cost
- » Efficient & Effective engineering
- » Saving in packing charges and much faster delivery time
- » Negotiated for rate contract annually
- » Easy drawing approvals

Standardize CEMS System



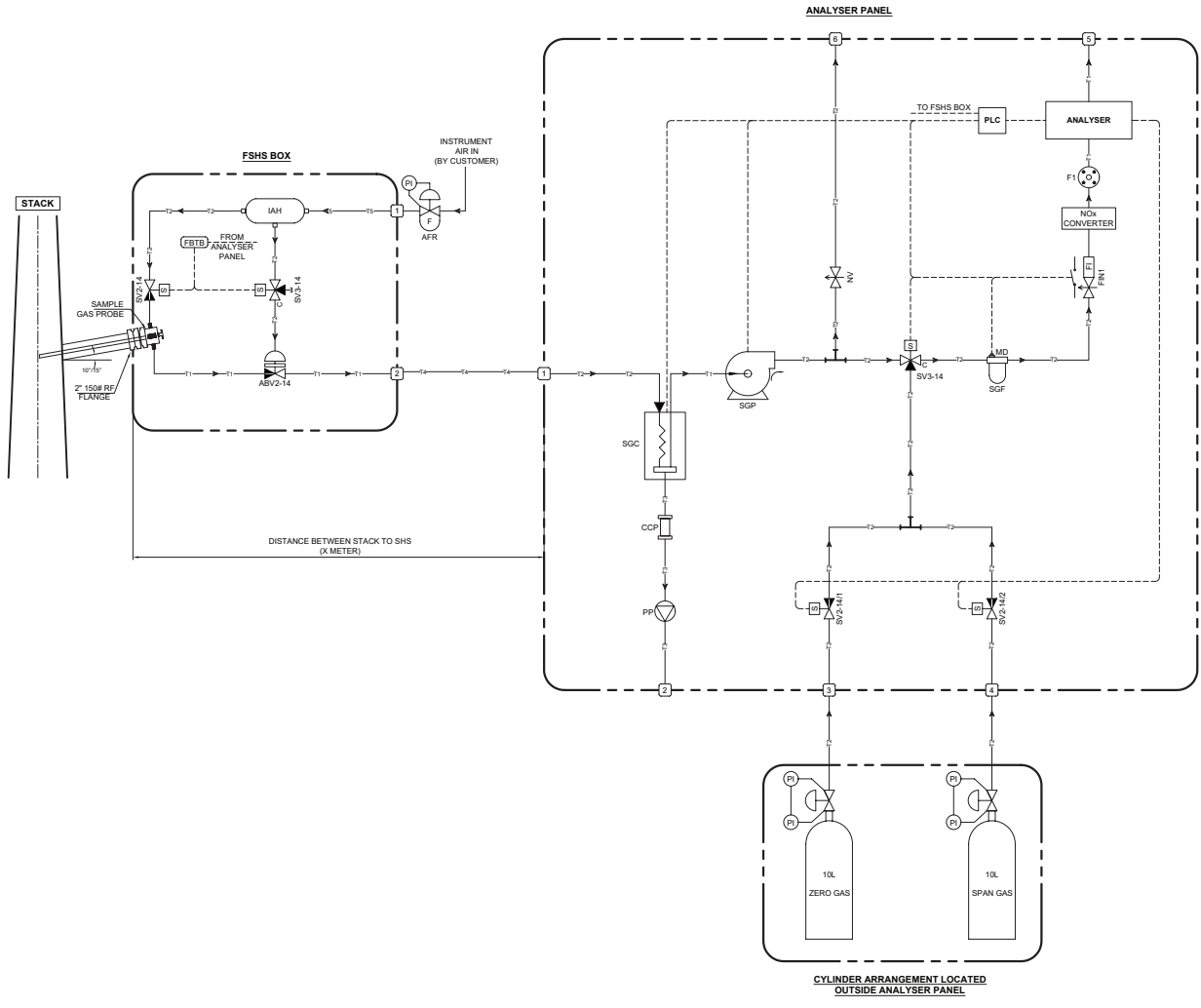
THE INFORMATION WE NEED, TO PROVIDE THE OFFER

- » List of measured gas components and measurement ranges
- » Analyzers being installed
- » The fuel of the boiler (oil, gas, coal, biowaste, etc.)
- » Stack gas details (temperature, pressure, humidity, dust load, stack construction)
- » Distance between take-off point to Analyzer, Available power supply, and Moisture content
- » Ambient conditions

Please refer One Example of the GAS system with schematic diagram, Bill of material and Technical specification, General Arrangement Drawing for the same.

Part no. : GAS100010000001

SCHEMATIC DRAWING FOR GAS MEASUREMENT



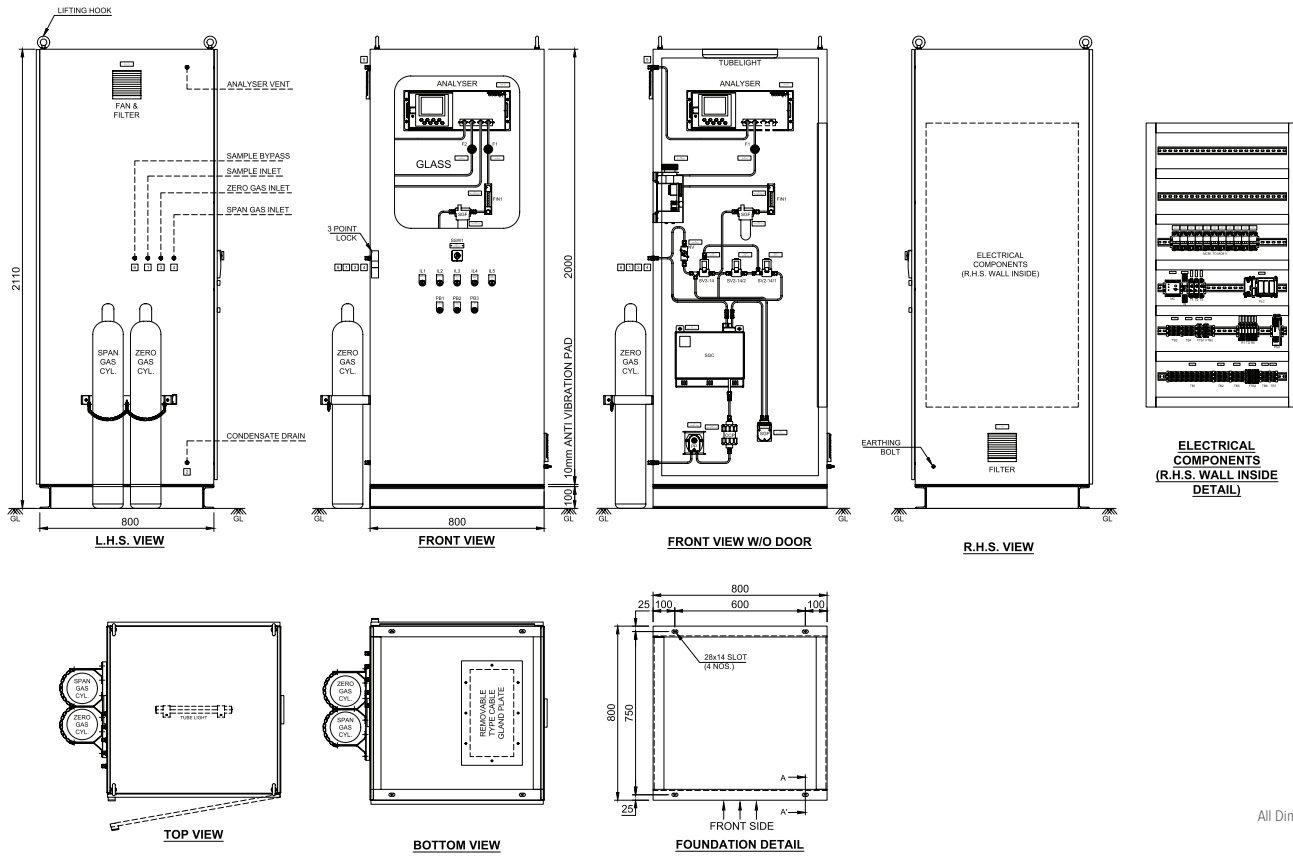
TECHNICAL SPECIFICATIONS

Dust Load	2 gram/ Nm3
Filter for Probe	5 Micron ceramic (other available on request)
Moisture Content	Less than 15%
Sample Temperature	Max 600 °C

BILL OF MATERIAL

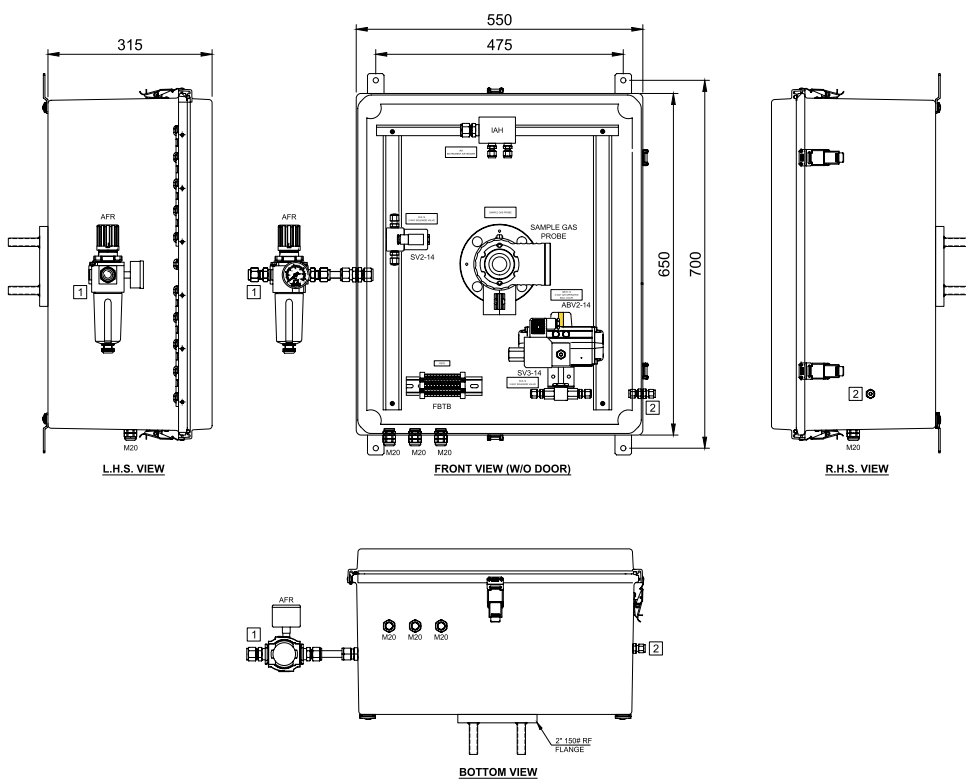
SR.NO.	LEGEND	DESCRIPTION	QTY.	UNIT
A		Analyzer SHS Panel comprises of following components:		
1	-	Analyzer panel, size: (2000mm + 100mm + 10mm) (H) x 800 mm (W) x 800 mm (D), MOC: MS CRCA, Color: RAL7035, Finish: Powder coated, (Refer GA drawing for detailed specifications)	1	NO.
2	NOx	NOx converter, Metal cartridge, Suitable to safe area (Required when NOx is being measured)	1	NO.
3	F	Fine filter, Filter size: 2 micron	2	NOs.
4	SGC	Sample gas cooler, Cooler MOC: MS CRCA, Heat exchanger MOC: SS, Suitable to safe area	1	NO.
5	CCP	Catch pot for condensate drain	1	NO.
6	PP	Peristaltic pump, Suitable to safe area	1	NO.
7	SGP	Sample gas pump, Bellows type, Suitable to safe area	1	NO.
8	FIN1	Sample flow meter with needle valve	1	NO.
9	-	Sensor for low flow	1	NO.
10	IS	Isolator for low flow, Power supply: 24V DC	1	NO.
11	NV	Needle valve	1	NO.
12	SV3-14	3 Way Solenoid valve, Suitable for safe area	1	NO.
13	SV2-14	2 Way Solenoid valve, Suitable to safe area	2	NOs.
14	SGF	Sample gas filter, 2 Micron glass micro fiber	1	NO.
15	MD	Moisture detector	1	NO.
16	MC	Moisture controller, Power supply: 230V AC, 50Hz, Suitable to safe area	1	NO.
17	PLC	Programmable Logic Controller with DI/ DO/ AI/ AO Modules	1	SET
18	-	SS Fitting, Double compression type, MOC: SS 316	AR	AR
19	-	SS tube, MOC: SS 316	AR	AR
20	-	PVDF Fittings, Double compression type, MOC: PVDF	AR	AR
21	-	PTFE Tube, MOC: PTFE	AR	AR
B		FSHS box (field sample handling system) comprises of following components:		
1	FSHS	FSHS box, Size: 650 mm (H) X 550 Mm (W) X 315 Mm (D), MOC: Compression Molded FRP, Color: RAL7035, (Refer GA Drawing for detailed specifications)	1	NO.
2	SP	Sample gas probe with Blowback, Suitable to safe area, 5 Micron ceramic	1	NO.
3	SV2-14	2 Way Solenoid Valve, Suitable to safe area	1	NO.
4	SV3-14	3 Way Actuator operated, Suitable to safe area	1	NO.
5	ABV2-14	2 Way Air operated ball valve	1	NO.
6	IAH	Instrument air header, MOC: Aluminium/ SS 304/ SS 316, Finish: Buff	1	NO.
7	AFR	Air filter regulator	1	NO.
8	-	SS Fittings, Double compression type, MOC: SS 316	AR	AR
9	-	SS Tube, MOC: SS 316	AR	AR
10	-	PVDF Fittings, Double compression type, MOC: PVDF	AR	AR
11	-	PTFE Tube, MOC: PTFE	AR	AR

GENERAL ARRANGEMENT DRAWING FOR ANALYZER PANEL



All Dimension are in MM

GENERAL ARRANGEMENT DRAWING FOR FSHS BOX



All Dimension are in MM