

SGI 310

Sarvesh Analytics brings the most simplified extractive Sampling System based on Powerful Peltier based cooler in the most compact form. It includes all the components required to give a safe and conditioned sample for your Gas Analyser.

# **Complete Sampling System**

Compact 19" Peltier Based System

Dual Channel Cooler with integrated Peristaltic Pump

### **Includes**

Sample Filter with Condensate Sensor

Sample Pump with Flow Control Valve

Blowback Controller

Heated Hose Controller

# **Optional**

Calibration Solenoid Valve
Sample Probe with Blowback

Heated Hose (50m)

# **Salient Features**

PLUG and PLAY

Microprocessor based Electronics with

inbuilt Moisture Protection Logic

Sample Pump output is ON only when

- Sample temperature  $<12^{\circ}C$ 

- Sample is dry without Condensate

Timer Based Blowback

Reduces Tubing and Electrical

Consumes Less Panel Space

Faster Integration Time

Reduces Cost

Tele: 91-94 2300 4179 email: info@sarveshindia.com

www.sarveshindia.com



# Hardware Specifications

Cooler Specifications:

Heat Exchanger

Sample Inlet Temperature Sample Dew Point

Max 140° C 65° C max

2 x PTFE

Sample Flow

240 LPH (4 LPM)max

Sample Outlet Temperature

5° C

Sample Dust Level

< 3 micron

Peristaltic Pumps

2 no.s

Sample Fine Filter:

0.1 Micron Coalescing Type

Condensate Sensor:

Long life corrosion free Sensor

Sample Pump with Fast Loop Valve:

Free Flow - 5 LPM

Optional:

Free Flow - 9 LPM

Calibration Valves (optional):

2 x Solenoid Valve, 24 VDC

Temperature Controller:

User Programable with SSR

output rated @ 230V AC, 50 Hz, 20A.

Material in contact with Sample:

SS 316, PTFE, Viton, Silicon, Engineering Plastic

Blowback Timer:

User Programmable with

relay output rated @ 230VAC 1 A

Fault Relay:

Potential Free CO contact,

rated @ 230 VAC, 1 A

### Salient Features

The Micro controller controls the following loops

- maintains the temperature of the cooler to get 5° C as Sample Output Temperature
- Operates the Sample pump below 12<sup>0</sup> C
- Operates the Peristaltic Pumps periodically
- Trips the Sample Pump when condensate is detected

INDICATORS: There are Four LED Status Indicator -Status of Cooler Temperature, Power,

Sample Pump and

Condensate.

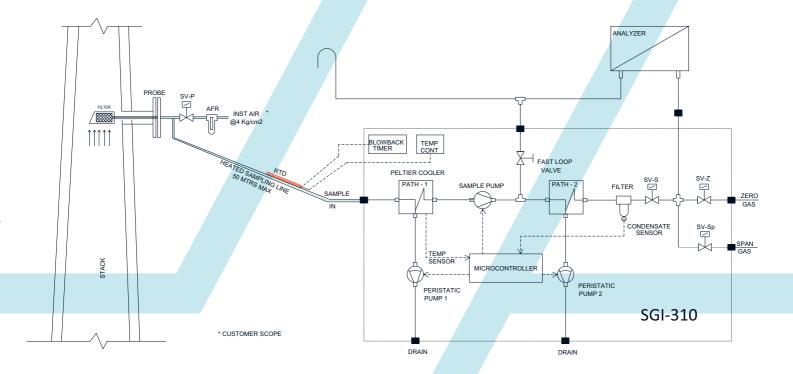
FAULT ALARM: The Micro Controller Generates fault Alarm in case of Cooler Temperature failure and condensate detection

BLOWBACK: The Blowback timer is user programmable and is used to operate the Blowback Solenoid Valve at the Sample Prohe

The Sample Pump is OFF during Blowback.

HEATED HOSE: The Temperature controller for Heated Hose is user programmable. It is used to control the Heated Hose temperature. The RTD from the Heated hose is taken as the temperature input.

CALIBRATION VALVES (optional): The calibration Solenoid Valves can be directly controlled by the Gas Analyser.



#### Notes:

-The final responsibility to check whether this product meets the requirement of the Process and / or Analyser remains solely with the customer.

- M/s SARVESH ANALYTICS PVT. LTD. has a policy of continuous improvement of product & services and hence reserves the right to change the specifications and features without prior notice.



## Optional Hardware

#### Auto - Calibration

This option includes the necessary Solenoid Valves. The Solenoid Valves are internal and are controlled by Analyser through direct hard wired signal.

#### Sample Pump - High Flow Rate

This option includes Sample pump which has 9 LPM free flow. These are suitable for sample line between 60 - 100 m.

### Sample Probe

- Suitable for sample temperature  $500^{0}\,\mathrm{C}\,$  max and
- Maximum Dust level 10 gm/Nm<sup>3</sup>.
- · Inbuilt Blowback solenoid valve operated by SGI -310
- · Heated Filter option available

#### Customer Scope:

- Two core cable between SGI -310 and Sample Probe for Blowback SOV.
- A 1/2" Tapping Clean Dry Instrument Air line at Sample probe

#### Heated Sample Line

- · Prefabricated Heated Hose
- Maximum Length up to 50m<sup>2</sup>
- · Power Supply -

230V AC 50 Hz

- Wattage -
- 45 W/Mtr
- Sample Tube :

Area Classification:

1/4" OD Teflon Tube

## **Environmental Conditions**

Ambient Temperature:  $+5^{\circ}\text{C} \text{ to } + 45^{\circ}\text{C}$ Storage Temperature:  $+0^{\circ}\text{C} \text{ to } + 50^{\circ}\text{C}$ 

Safe Area



# Sample Condition @ Tapping Point

Suitable for Sample where  $SO_2$ , NO, CO < 1000ppm.

Not suitable for samples containing, HCL, HF, H2S and other highly Corrosive, Toxic and Flammable Samples.

Dust Level: < 10 gm/Nm3

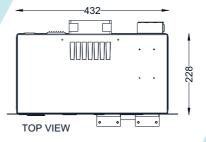
Sample Gas Velocity: between 5 - 20 m/sec

## Other Specifications

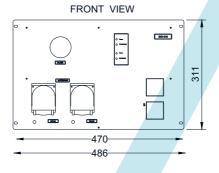
Max 50m

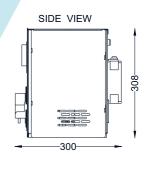
Sample Connection	Inlet - 1/4" OD
	Outlet - 1/4" OD
	Bypass - 1/4" OD
	Drain - Flexible tube connection
Calibration Connections	2 x Nipple for 1/4"OD Flexible tube
Enclosure	19" Rack / Panel mounted
Dimension	311 (H) x 486 (W) x 300 (D) mm
Protection	Suitable for Safe Area, IP 20
Weight	Approx. 16 Kgs
Power Supply	230 VAC, 50 Hz, 600 VA
	(excluding Heat Tracer)

\* - Contact Sarvesh Analytics for more higher Sample Line Distance



Sample Line Distance:





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### SARVESH ANALYTICS Pvt. Ltd.

Regd. Off: # 207, Vinayak Arcade, Akurdi, Pune - 411035, INDIA Factory: Gat No.188, Jyotibanagar, Talwade, Pune - 411062 INDIA



Email:

info@sarveshindia.com

Website:

www.sarveshindia.com

Telphone:

91 94 2300 4179