

ALPHA AIR MONITOR

SALIENT FEATURES

- RS-485 OR ETHERNET • SMART COMMUNICATION PROTOCOLS • MICROCONTROLLER BASED • 0 CPM TO 50,000 CPM • bq/m³ UNIT • AUTORANGING • DIGITAL DISPLAY • QUICK RESPONSE • STABLE READING
- CONTINUOUS HV & DETECTOR MONITORING • DIGITAL ALARM SETTING • 4 TO 20MA OUTPUT • EASY ACCESSIBILITY FOR SERVICING • PUMP WITH SILENCER



I – ELECTRONIC UNIT SPECIFICATIONS

RANGE	: 50000 CPM & 999.99 bq/m ³
ACCURACY	: ± 10% of full scale
TIME CONSTANT	: 1sec to 60sec automatically adjustable
DISPLAY	: 5 digit 7 segment LED & 16 x 2 alphanumeric LCD
KEYPAD	: Detachable Keypad
Air Volume	: Will be displayed on the LCD in m ³

ALARM SETTING & INDICATION

Range	: 1 to 50000 CPM		
INDICATION	Red LED Cluster	Green LED Cluster	Speaker
Normal	OFF	ON	OFF
Alarm	FLASHING	OFF	ON
Acknowledge (Local / Remote)	ON	OFF	OFF
Reset after clear	OFF	ON	OFF

(Local / Remote)

COMPUTER INTERFACE

Standard : RS485
Set : ID, alarm, range span
Read : ID, Alarms, Instrument type, range span, status, reading etc.
Control : Acknowledge, reset

OR

Optional : Ethernet 10/100 port (RJ 45)
Modbus /TCP

OTHER FACILITIES

Test Switch : To feed internal frequency to check functioning of instrument without source
Power ON Self Test : provided for certain peripherals.
Continuous Detector & EHT Monitoring : provided
Recorder o/p & Relay o/p : 4 to 20mA/ 0 to 5V & DPDT relay for each module
Alpha: 20mA corresponds to 1200CPM by default.
It can be changed by PC to any other value using serial port.

Note: For bq/m^3 calculation, flow rate (in lpm) is to be entered by keypad in case of analog air rotameter. Whereas in case of optional electronic flow rate meters, flow rate to be automatically taken.

EHT SPECIFICATIONS

20V to 1200V, adjustable & displayed on demand.

EHT ON switch provided with LED indication, load current of 200 μ A

Power Supply : 230V AC \pm 10% 50Hz
PCB Mounting : Side by side for easy accessibility while servicing
Environment : Upto 60°C & 90% RH at 40°C in radiation areas

II - ESSENTIAL ACCESSORIES WITH THE INSTRUMENT

ALPHA AIR SAMPLER-DETECTOR ASSEMBLY

The assembly consists of : a) ZnS(Ag) screen ASP3 – 2" dia disc
b) Aluminium Mylar – 2" dia disc
c) PM Tube (52mm dia, 0.5×10^6 A/lm gain, 0.3nA dark current)
d) A filter holder (50mm dia.)
e) **Suction Chamber** : Suction chamber with dual nozzles as per Drg. No. 9606152-N (Rev-1)

Note: : Construction of air sampler assembly to be such that removal of nozzle connection is not required while replacement of filter paper.

FLOW MEASUREMENT & REGULATION (ROTAMETER) (STANDARD)

Air rotameter, for alpha 50 – 200LPM with serrated S.S. nozzles for connection to 12mm ID PVC / rubber tubing. Air flow control valve.

FLOW MEASUREMENT & REGULATION (OPTIONAL)

Electronic Air rotameter for alpha 0 to 165LPM

INSTRUMENTATION TROLLEY

The Instrumentation Panel : To accommodate Electronic instrument, Detector, Detector Housing, Suction Pump, Rotameter etc.

AIR SUCTION PUMP

Dry type vacuum pump with silencer, capacity 150 LPM. Pump motor of $\frac{3}{4}$ HP, 1440 RPM rating suitable for regular air sampling duty with our air monitor.

Note : Optional items at an extra cost.

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