

## Model PAG-4 – Para Area Gamma Monitor (GM Tube based)



**Para Area Gamma Monitor PAG-4**

Para Area Gamma Monitor Model PAG-4 is a micro-controller based; economical, stand-alone, mains operated instrument that uses GM tube as nuclear radiation detector. Necessary electronics & high voltage supply are housed in the equipment. PAG-4 has dose rate range 0 to 100 mR/Hr\*. Audio and visual alarms turn ON if the dose rate level exceeds the set value. Alarm relay change over contact is provided for external control or indication. \* Other ranges are also available on request

This unit is supplied with an Auto ranging direct reading 3+3 digit 7 segment LED display for dose rate, preset alarm level and information related to instrument status, self test etc.

PAG-4 is ideally useful for health physics applications in radioisotope laboratories, nuclear reactors, nuclear power plants, environmental survey labs, etc.

Alarm Level setting, Dose Rate calibration can be performed by using four keys keypad provided on inside subpanel. Optional key lock feature restricts the editing only to the authorized personnel preventing the other persons from tampering the calibration or changing the Alarm parameters.

Normal operating condition is indicated by illuminated large area Green LED. Red Flashing, large area LED accompanied by audio alarm indicates the dose rate alarm condition. On pressing acknowledge key, the instrument will return to normal condition or may continue to flash alarm condition as the case may be. HV status is indicated on inside subpanel LCD.

### Status Indication

<b>Normal</b>	Steady Green LED
<b>Dose rate alarm</b>	Flashing Red LED & Audio Alarm
<b>On Acknowledge</b>	Steady Red LED if dose rate alarm level persists
<b>No pulse / detector Fail</b>	Full Bright RED LED

### Options

- ✓ 4 – 20 mA and / or 0 to 5V full-scale output proportional to dose rate
- ✓ RS232 - for Hand held configurator or PC COM port interface with data logging software
- ✓ RS485 – Multi drop serial Communication. The monitor will be able to send the instrument data like Instrument ID, dose rate, alarm level and Indication. Data Acquisition software (optional)

## Specifications (PAG-4)



### Detector (GM Tube)

<b>Detectors</b>	GM tube suitable for 0 to 100 mR/Hr range (* other GM detectors suiting user's work also can be offered)
<b>Radiation Detected</b>	Gamma
<b>Detector Housing</b>	Internally mounted <i>External detector (Optional) - The GM detector probe will be located external to the monitor with 1 meter interconnecting cable. GM tube will be housed in S.S or Aluminium enclosure</i> <i>Cable length can be supplied upto 20 meters at extra cost (Optional)</i>

<b>Operating Voltage</b>	HV supply is factory set as per GM Tube specifications
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### Monitor

<b>Design</b>	Micro-controller based
<b>Display</b>	Auto ranging direct reading 6 digit seven segment LED display For dose rate, Alarm Level, status indication
<b>Range</b>	0.1 mR/Hr to 100 mR/Hr* (* Other ranges are available on request)
<b>Response Time</b>	Response time is variable between 20 Secs to 1 Sec depending on dose rate
<b>Accuracy</b>	+/- 15 % through the range
<b>Alarm Range</b>	0.1 mR/Hr to 99.9 mR/Hr
<b>Front Panel Keys</b>	2 keys provided on front panel namely Acknowledge and Reset to reset Alarm and 4 keys pad to set Alarm and calibration factor on inside subpanel.
<b>Indication</b>	Large Area Green LED for Normal Indication , Large Area Red Flashing visual and Audio Alarm for dose rate OR Bright Red visual for No Pulse Alarm / detector Fail Alarm, HV fail LED / HV normal LED indication
<b>Outputs</b>	2 Change Over potential free relay contacts
<b>Construction</b>	Wall mounting type
<b>Dimension</b>	285 L x 135 D x 255 H mm
<b>Options</b>	4 to 20 mA and or 0-5V Full Scale Output, RS-232 / RS-485 with data logging software

***Due to continuous R&D, specifications are likely to change without notice***

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