

ELECTRONIC UNIT:

The electronic unit consisting of the following

- a. Signal processing and display unit.
- b. Mother board
- c. Switched mode LV supplies unit
- d. 7 channel pre-amplifier section
- e. High voltage power supplies unit

Signal processing and display unit:

The signal processing & display unit comprising of an SBC & large TFT display perform data acquisition & control. It carries out the following functions of

Operational Guidance: Operational guidance messages shall be displayed Before monitoring, On Clear, On Contamination and On Incomplete operations shall be generated in English.

Incomplete operation:

Multi-lingual textual indication accompanied by audio alert are generated when counting is interrupted.

Clear Indication: LCD mimic indicator will be ON when all the channels are clear.

Counting in progress Indication:

Busy indication will be shown while Counting is ON and Time left is displayed.

Visual display:

10.1" colour TFT display.

Given below is a partial list of the functions being carried out by the visual display.

- Display normal status messages.
- Visual display of monitoring in progress (including countdown of time in seconds)
- Display of individual channel readings
- Alarm annunciation
- Background checking and display
- Instructions for use.
- Self-explanatory, language independent symbols / user instructions.

Computer interface: The monitor has a USB port for data transfer of Acquired Data / Alarm data to a connected Pen Drive / Through Ethernet Portal Configurator App

Power supplies:

The monitor shall have a High voltage power supply unit for the detectors and a low voltage power supply unit which supplies the DC power supplies required for the Electronic unit. It shall have a very good line voltage and load regulation for all the supplies. It shall be fitted with Mains line filters to avoid line interferences.

The High voltage output shall be adjustable by handheld configurator or host PC and EHT should be displayed on the display on demand. The EHT shall adjustable from 300 V to 1500 V DC.

Instrument fault indication:

Fault diagnostics are carried out periodically and any failures are reported on the display like LV, HV and detector failures.

Fault indications shall be cleared automatically if normal status is resumed.

Self diagnostics :

The monitor has built-in self diagnostics. On being powered it shall perform tests to ensure that all components and sub systems are functioning properly. It shall check for the Power supply, High Voltage Supply, Detector, Counting and measuring circuits, Alarm Systems, Display Systems and communication port.

Test points shall be provided for checking the EHT voltage and for connecting external input pulse signals.

HOUSING:

- Most of the modules of the Electronic unit and detectors shall be integrated into a column shaped cabinet with castor wheels.
- The hand probes shall be fitted so that both the hands can be inserted and the optical sensors inside the cavities are activated when hands are placed to start monitoring.
- The modules shall be plug in type with all the controls and display on the front panel.
- The cabinet shall be rat-proof, rugged & elegant.

Input Power:

85-264VAC, 47-63Hz, single phase supply. Power ON/OFF indication is provided with an indicator LED.

Dimensions:

Overall Dimensions:
1687H x 729W x 895D mm

Environment:

The instrument shall be able to withstand temperature upto 50°C and relative humidity upto 90% in radiation areas.