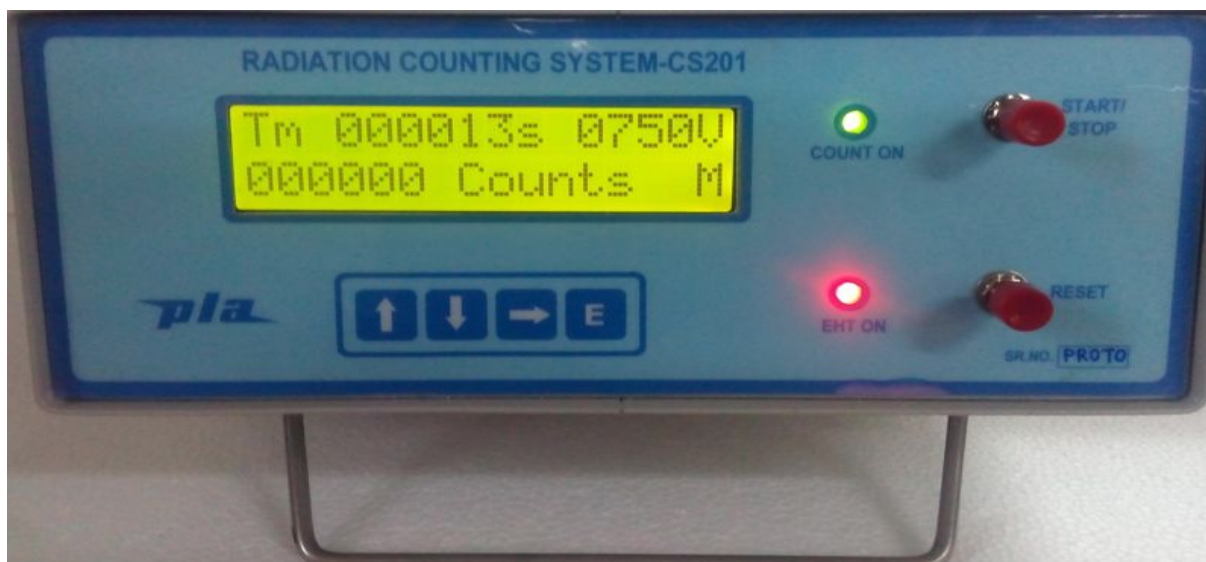


**SALIENT FEATURES**

- **LARGE LCD DISPLAY ( $\approx 10\text{mm}$  character height)**
- **DESIGNED FOR GROSS COUNTING OF BETA/GAMMA OR ALPHA**
- **MICROCONTROLLER BASED**
- **DATA STORAGE & RECALL OF 1000 READINGS**
- **PRESET TIME, PRESET COUNT, CPS, CPM**
- **CYCLIC MODE**
- **PLATEAU MEASUREMENT**
- **SERIAL PORT**
- **BACK-LIT LCD (16 X 2)**
- **LABEL ASSIGNMENT**
- **MENU DRIVEN**
- **RANGE : 999999 COUNTS & 999999 SECONDS**
- **PC SIMULATION**

**INTRODUCTION**

Micro Controller based counting system type CS201 is designed to measure gross counting of contamination collected on filter paper.

Beta/Gamma GM Probe GP30/GP40, with GM Tube can be used with this for measuring beta/gamma activity on sample paper.

ZnS scintillation probe type PSP647D1 can be used with this for measuring alpha activity on sample paper.

Data can be stored & transferred to PC. Also, start/stop commands can be given from the PC.

Radiation Measured depend on the probe selected whether Alpha or Beta/ Gamma.

Unique large character LCD ( $\approx 10\text{mm}$  character height) offers clear & convenient readability as compared to other makes having less than 5mm character height.

**TECHNICAL SPECIFICATIONS**

- |                                   |   |
|-----------------------------------|---|
| <b>Input</b>                      | : Two UHF connectors: (a) For Alpha Probe (b) For GM Tube<br>Note: Only one to be used at a time<br>One BNC for signal input      |
| <b>Input Sensitivity</b>          | : -50mV   |
| <b>Built-in Load Resistor</b>     | : (a) 390K $\Omega$ for $\alpha$ probe & (b) 3.3M $\Omega$ for GM Probe   |
| <b>Paralysis Time Selection</b>   | : 250 $\mu\text{sec}$ or 350 $\mu\text{sec}$ or 550 $\mu\text{sec}$ & OFF position <6 $\mu\text{sec}$<br>(useful for GM Counting) |
| <b>Pulse Height Discriminator</b> | : Selectable by internal preset 200mV to 2.5V   |

**EHT VOLTAGE**

- |                        |                          |                             |                     |
|------------------------|--------------------------|-----------------------------|---------------------|
| <b>Range</b>           | : 20V to 1250V, settable | <b>Maximum Load Current</b> | : 200 $\mu\text{A}$ |
| <b>Load Regulation</b> | : 0.5% of set voltage    |                             |                     |

<b>Display</b>	: 16 x 2 Dot matrix LCD with approx. 10mm character height
<b>Count ON Indication</b>	: 3mm green LED
<b>User Interface</b>	: <b>Menu driven:</b> START/STOP, RESET, UP, RIGHT, ENTER buttons
<b>Preset Time Mode</b>	: <b>6 Digit Counter:</b> 999999 counts <b>6 Digit Timer:</b> 1 to 999999 seconds <b>Label Assignment:</b> BG, SA or ST <b>No. of Cycles:</b> 1 to 99 Cycle <b>Serial Number for Storage:</b> 0 to 999
<b>Preset Count Mode</b>	: <b>4 Digit Counter:</b> 9999 counts <b>Serial Number for Storage:</b> 0 to 999 <b>Label Assignment:</b> BG, SA or ST <b>No. of Cycles:</b> 1 to 99 Cycles
<b>CPM Mode</b>	: <b>6 Digit Counter:</b> 999999 CPM <b>Label Assignment:</b> BG, SA or ST <b>Time Constant:</b> 60 Sec, display refresh every sec(avg. of last 1min)
<b>CPS Mode</b>	: <b>6 Digit Counter:</b> 999999 CPS <b>Label Assignment:</b> BG, SA or ST <b>Time Constant:</b> 1 Sec
<b>Recall Menu</b>	: Recalls the Data saved of counts along with time & Serial Number
<b>Block Menu</b>	: Readings of counts along with time & serial number can be printed, dumped (on PC via serial port) or deleted with FROM & TO range
<b>Data Storage</b>	: Stores the last 1000 readings: Counts, Time & Serial number
<b>Plateau Measurement</b>	: Facility to measure plateau of the detector automatically <b>Settable Parameters:</b> Start voltage, End voltage, time interval, step size <b>Result:</b> Displayed in terms of plateau slope operation voltage, start and end Points of plateau
<b>Serial Port</b>	: USB port for data dumping to PC from block menu & PC can give start/stop command in 'preset time' mode
<b>Power Supply</b>	: 230V AC, $\pm 10\%$ , 50Hz
<b>Dimensions</b>	: 300mm x 230mm x 115mm approx.

### **ESSENTIAL ACCESSORIES (AT EXTRA COST)**

<b>DETECTOR: PSP647D1</b>	: As per Cat.No.PSP-647D1/0805 An alpha probe having drawer type arrangement for 1" $\phi$ or 2" $\phi$ sample filter paper measurement <b>Mylar Mounting:</b> On S.S. frame for easy replacement 2" dia PM tube (10 dynodes, Gain: 0.6x10 <sup>6</sup> , Dark Curr:0.3nA typical) (Shock: 30g/11ms/3 shocks per axis, Sinusoidal Vibration: 10-32Hz: 10mm, 32-2000Hz:20g, 2 octaves/min)
<b>GP40</b>	: GM probe GP40 having end-window GM tube (areal density : 1.5-2.0mg/cm <sup>2</sup> , eff. dia. $\approx 1.15$ , eff. length $\approx 1.45$ ") or equivalent with bakelite stand & UHF connector
<b>P1705</b>	: Lead Castle P1705 for GP30/GP40 GM probe

**NOTE:** All optional at an extra cost.

CAT. No. CS201/0216

## **PLA ELECTRO APPLIANCES PVT. LTD.**

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