PROGRAMMABLE COUNTING SYSTEM PCS-301

INTRODUCTION :

This is very useful in **delay counting of spot air samples** / **CAM filter papers.** This allows the user to choose the duration of counting and also the delay between various counting intervals. By choosing appropriate counting intervals of delay, user can determine the contributions from natural background radioactivity viz. Radon / Thoron daughter products and evaluate the long-lived activity present in the sample. Once the desired programs and cycles are set, the equipment counts and records on its own thus minimising human intervention and attention.

System can remember 9 programs & each program can be repeated for desired number of Cycles. Each program can consist of upto 6 steps. Step of a Program means a set of counting start and stop timings.

Eg. Program (40,50), (60, 200), (600,800) is a 3 step program which will count from 40^{th} to 50^{th} minute and then 60^{th} to 200^{th} minute and then 600^{th} to 800^{th} minute after start button is pressed.

Number of steps, Number of cycles and start/stop timing of each step are all editable by the user. The system can memorise 3000 steps data. It can transfer the data to a PC via RS232 serial port or can send the data for printing to a 80 col dot matrix printer. The system also includes regular preset time mode 'Program 0'.

TECHNICAL SPECIFICATION :

Display : 16 x 2 LCD display

Commands : Menu driven with front panel keys.

PROGRAMS : 1 to 9

Number of Programs : 1 to 9

Number of times each program can be repeated. : 1 to 99 cycles

Number of steps (start, stop timings) per program : Max 6

Scalar : 0-999999 counts per step

Counting start / stop timing : upto 999 sec. or min

Data Storage Capacity : 3000 steps data

Date & time stamping : for each set of readings

Location stamping : 6 character location can be stored for each set of readings.

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PROGRAM 0

Program 0 is basic preset time mode

Preset time : 1 to 999 sec. or min

Number of Cycles : 1 to 99

Scalar : 0 – 999999 counts

Beep Sound : Single beep after each key press
Single beep after completion of each step.
Double beep after completion of each cycle.
Tripple beep after completion of program.

Serial Port : RS232 compatible

Printer : 80 column dot matrix printer (SPP), LX300 or equ.

Print out Format

Location ABCDEF PROGRAM NO LABEL : SA

Date YYYY-MM-DD Time HH.M.M

Cy	S1	S2	S3
01	999999	999999	999999
02	999999	999999	999999

Location ABCDEF PROGRAM NO LABEL : SA

Date YYYY-MM-DD Time HH.M.M

Cy	S1	S2	S3	S4	S5	S6
01	999999	999999	999999	999999	999999	999999
02	999999	999999	999999	999999	999999	999999

EHT :

Output voltage 0 to 1250V in steps of 5 volts

Maximum out put current : 200 µA.

Ripple : < 10 mV

Detector Input :

a) G.M Input through UHF connector with 10 MΩ anode load resistor.

b) PM input through UHF connector with 390 K anode Load Resistor.

c) External signal input through BNC connector.

Pulse height Discriminator (Internal) : 0.1 V to 10 V screwdriver adjustable with multiturn Preset.

Paralysis Time : Push button selectable 250, 350, 550 µsec (5µsec. in OFF)

Power : 230 V ± 10% AC mains operated

Note : All optional items and detectors at an extra cost.

Cat. No. PCS-301/1207

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