Model PNS-2 Para Nuclear Spectrometer





Para Nuclear Spectrometer **Model PNS-2** is a Si-lab micro-controller based, stand alone, Mains operated instrument for NaI(TI) detector based Gamma Ray Spectroscopy.

PNS-2, along with NaI(TI) detector of customer's choice & Model NETS-0, PMT base preamplifier form a complete spectrometry system. This system is suitable for experiments related to absorption studies, half life measurements. This set up is very useful for gross Gamma counting of environmental samples, with appropriate detector.

PNS-2 contains Spectroscopy Amplifier, SCA, HV supply for detector, power supply for preamplifier and micro based scalar / timer. **PNS-2**, in its standard configuration, is supplied as preset timer.

PNS-2 can store 1000 readings in a non-volatile memory for data logging. These readings can be downloaded to PC via USB interface and printed if required. These readings can also be read on LCD display after the counting experiment.

PNS-2 is ideally suited for Nuclear Counting Experiments carried out in University and colleges. It is also useful for radiation counting for health physics applications in radioisotope laboratories, nuclear reactors, nuclear power plants, environmental survey labs, etc.

Nal(Tl) Detector, PMT based Preamplifier, Lead shield around the Nal(Tl) Detector are supplied as an optional accessories for PNS-2. Depending on the application detector sixe and suitable shielding requirements can be configured.

Specifications (PNS-2)



Counter		
*	Electronics	All solid state, Si-Lab micro-Controller based design
*	Preset Time	Time settable between 1 and 9999 seconds in Step of 1 second
*	No. of Runs	Settable between 1 to 1000
*	Display	Counts: 999999 Time: 9999 Runs: 1000
*	HV Supply	Adjustable to 1500V by setting front panel mounted heliport with calibrated dial
*	Spectroscopy Amplifier	Gain – x 1 or x 2 by the Ten turn Helipot with graduated dial Input Polarity – Positive Output – Positive Polarity (0 to 9 V) pulse Output pulse – near Gaussian shape
*	Single Channel Analyzer	LLD – 0.1 to 10 V Adjustable by helipot with graduated dial ULD – 0.1 to 10 V Adjustable by heliport with graduated dial Mode – Threshold or Window Input – Unipolar Positive pulse Output – TTL Pulse of Width 1µSec (approx.)
	Data Storage User Interface Data Transfer	Store and recall facility for data up to 1000 readings 4 keys keypad with 16x2 line LCD for displaying Key function To PC - USB / Ethernet Port

Preamplifier

❖ Para Make NETS-0 or equivalent 14 pin PMT base amplifier

Power Supply

❖ 240 V (+ 10%), 50 Hz Ac Mains

Mechanical

❖ Dimensions : 280 L X 250 D X 120 H mm

Weight: Approximately 2 Kg

Accessories (optional)

❖ Nal(TI) detector

Lead Shield suitable to detector

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

Manufactured by:

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