

SpectroAnalyzer™

Single/Dual-Channel Analyzer Multi-Channel Analyzer



Options

- Single- or Dual-Channel Analyzer
- 1024-channel Multi-Channel Analyzer
- Dual detector interface
- Laser printing capability
- Rechargeable battery (NiMH)

The SpectroAnalyzer™ is a compact single- or dual-channel counting instrument used for gamma counting, and is also available with a 1024-channel MCA. It contains a precision pulse height analyzer and high voltage supply, both microprocessor controlled.

The pulse height analyzer setting is accomplished through a menu and selects an energy region of interest. When the proper high voltage is applied to the detector, the PHA is calibrated directly in keV. Optional spectrum / MCA includes auto-calibration.

Output signals from the pulse height analyzer are totaled by the scaler, which can operate in either a preset count or preset time mode, and background count is automatically subtracted. Efficiency can be measured or entered, and activity can be displayed in disintegrations per minute (DPM).

A serial computer interface (RS-232) for input and output allows a computer to change settings, and count data can be transferred to the computer for printing or saving to disk.

Features

- 7-decade scaler
- Digital rate meter with a range of 0-10 million counts per minute
- Precision pulse height analyzer
- Variable amplifier for energy range
- Preset count or preset time mode
- Automatic background subtraction
- Data can be displayed in DPM
- Precision high voltage
- NaI drilled-well crystal detector with built-in preamplifier
- Up to 20 locations
- Data storage and archiving
- Prints reports, spectra, data
- RS-232 port for data input/output
- Large, backlit LCD display
- Easy to use, menu-driven interface
- CAN/USA certification by TUV Rheinland
- CE compliant

Tested to EN61010-1 and equivalent UL/CSA standards for CAN/USA certification by TUV Rheinland, and tested to EMC standard EN61326 for CE conformity.



AccuSync Medical Research Corporation is an ISO9001 and ISO13485 registered designer and manufacturer of medical devices and related instruments in nuclear medicine.

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Resolving Time:	One microsecond pulse pair. The overall resolving time of the scaler is limited by the input circuits and the necessary integration time in the detector for adequate pulse height resolution.
Time:	The microprocessor-controlled timer indicates elapsed time up to 1000 minutes.
Preset Time:	Time can be preset to any number up to 1000 minutes using the menu.
Preset Count:	Number of counts from 100 to 10 million can be preset by using the menu.
Background:	Automatic subtraction of background count.
Digital Rate Meter:	Indicates 0-10 million counts per minute with automatic change of range.
Pulse Height:	Five energy ranges from 400 to 2000keV in steps of 400keV are provided.
Window Setting:	1) Upper and lower level discriminator independently controlled from 0 to 100%. 2) % window. Lower level is set as the reference in keV's. Window is set as the % of this reference. 3) Symmetrical window. Lower level is set as the reference in keV's. Window is set symmetrical about this reference.
Multi-Channel Analyzer:	
Linear Amplifier:	The variable gain amplifier covers the energy range from 400keV to 2000keV in 400keV steps.
Max count rate:	200,000 cps
LLD:	Low level discriminator can be set to any level up to 100% of the selected range in 10keV steps.
ULD:	Upper level discriminator can be set to any level up to 100% of the selected range in 10keV steps.
No. of Channels:	1024
Calibration:	Automatic; standard source required.
Conversion time:	5us
Display:	Backlighted LCD display provides indication of accumulated counts, elapsed time, rate of incoming pulses, lower and upper level discriminator values, and high voltage setting.
Keypad:	6 membrane switches.
PHA Options:	The PHA consists of one or two independent channels with capability of one or two detectors. The following options are available: Option 1: Single Channel PHA for single detector with or without 1024-channel MCA Option 2: Single Channel PHA for two detectors with or without 1024-channel MCA Option 3: Dual Channel PHA for single detector with or without 1024-channel MCA Option 4: Dual Channel PHA for two detectors with or without 1024-channel MCA Note: Only one detector can be used at one time.
High Voltage:	500-1000V, electronically stabilized. Output Current: 500uA Temp stability: 50ppm Ripple: <25mV peak-to-peak
RS232 Output:	Count data, time, lower and upper level energy level settings, background counts per minute.
Input Sensitivity:	One millivolt.
Power:	90-240V~, 47-440 Hz, less than 5W
Battery:	Optional 9.6V NiMH rechargeable battery with 7 hrs. approximate running time.
Detector:	φ1.75"x2" NaI crystal shielded by 0.75" lead. Drilled well: φ.656"x1.75" Preamplifier: The detector has a built-in, charge sensitive preamplifier with positive output. The required power is +/-5V @ 2mA.
Dimensions:	Detector: Diameter 4.00", Height 9.25", Weight 30 lbs. MCA unit: Width 7.00", Length 7.09", Height 4.25", Weight 3.5 lbs. (w/ battery 4.5lbs.)