

Technical Data:

Detectors	12 detectors, 25 x 32 mm NaI
Scintillation detector	16 x 28.5 mm (Ø x depth)
Sample carrier	Material: plastic, resistant to usual solvents Size: 304 x 85 x 55 (width x height x depth)
Shield	Low intrinsic activity lead, min 6 mm on all sides Plus 10 mm round the detector block
Energy	up to 150 keV / 10 ... 90 keV standard
PC-Interface	
Fast, high-resolution ADC	4096 channels
Simultaneous measurement and storage	12 x 256 channels up to 65 k-Counts
Programmable HV	500 - 1500V
HV step size	1 ‰
HV power load capacity	1 mA
Plug-in connector for 8 bit slot	
Power supply	+5V, -12V, +12V (from PC)
Weight	25 kg
Dimensions	420 x 220 x 220 mm (width x height x depth)

With the aid of an additional software package the PC cord used for measurement and storage of the measurement spectra also permits general multi-channel gamma spectroscopy for use in nuclear medicine.

RADIO-IMMUNO-ASSAY-ANALYZER

Radio-Diagnostic-Center

Analyzing System for Immuno Assays
as RIA, IRMA, RAST,
Double-labelling etc.

Expandable with further
NaI-Detectors



Certified
DIN EN ISO 9001
+
DIN EN 46001



strattec ●●
biomedical systems

strattec biomedical systems AG
Gewerbestr. 37
D-75217 Birkenfeld
Phone: ++49 7082 7916-0
Fax: ++49 7082 20559
Internet: <http://www.strattec-biomedical.de>
E-Mail: Info@Strattec-biomedical.de

Issue May 2002 · Druckhaus Müller GmbH

strattec ●●
biomedical systems

- 12 detectors for fast, simultaneous measurement of RIA
- All detectors computer-stabilized
- Direct evaluation of measurement data via standard IBM-compatible PC
- Simple design allows easy operation
- Expandable to gamma multi-detector magazine sample changer
- Evaluation software for RIA, IRMA,

The special characteristics of the RIA · MAS:

- Vertical design and compact structure of the 12 detector system
- 256 channel spectrometer for each detector channel
- Min. 6 mm shield of low intrinsic activity aged lead between the detectors
- 10 mm shield of low intrinsic activity aged lead round the detector block
- Clear construction
- User-friendly, menu-controlled programme with automatic fault-finding
- Clear detector function display
- Well-arranged printout-format
- Measuring and evaluating programme on diskette
- Idle time correction for high measurement accuracy by high sample activity

¹⁾ SPAC is a registered trademark of Byk-Sangtec Diagnostica

Double-labelling, RAST, SPAC ET·FT4^{®1)}

- Expandable through direct connection of further detectors to the PC
- Software Iodine-Uptake, Nephrography, waste water, DICOPAC, Schilling-Test e. g.
- Precise evaluation with control by gamma-spectroscopy measurement
- Bidirectional on line computer link

Special features of the scintillation detector:

- Compact "desk-top" design
- 2"-detector with high sensitivity for all medical radio nuclides
- Spectroscopic evaluation
- Low-priced by using the RIA-evaluation computer
- Further detectors e. g. for Iodine-Uptake connectable by computer-controlled change-over
- Small space requirement
- Quick checking and calibration
- High stability by digital measuring technique
- Low background effect
- Quick cleaning after contamination
- Simple, straight forward operation
- Measuring cycle always under control and straightforward unambiguous evaluation
- Simple replacement when altering or expanding programmes
- Possibility of data exchange with laboratory data system

Programme Description

The programme is loaded automatically when the machine is switched on, to assume greater ease of operation. The main menu is then displayed on the monitor with the actual time and date, as the machine possesses a real-time clock with battery buffer.

Either measuring and evaluating programmes or testing and check routines for control and service are carried out from the main menu.

Varying responsiveness and spectral resolution of the detectors are revealed by the machine in a simple-touse alignment programme and accounted for by correcting factors in the software. In this way variations due to component parts and drifts between individual detectors are balanced out.

All user input requires confirmation, so that input errors can be corrected simply and easily, except interrogations which require only the answer "yes" or "no". For user commands to the computer which trigger nonreversible functions, such as delete instructions, a double confirmation is necessary. This ensures that important and irreplaceable data is not inadvertently deleted.

"Help" functions can be called up at every point in the programme. They give the user more detailed information on the monitor on how to proceed. This ensures that the user receives a leading answer to possible consequences of his

instructions to the computer which he is not able to foresee at this moment at every point in the programme. Furthermore, in almost all cases tedious looking-up in handbooks or descriptions is not necessary.

Up to 120 sets of assay parameters can be pre-selected and stored. This is sufficient for normal laboratory and practical tasks. They include such tests as RIA, IRMA, RAST, SPAC ET FT4^{®1)} and Double-labelled RIA.

Quality Control

Display of 20 quality parameters in graphical and tabular form

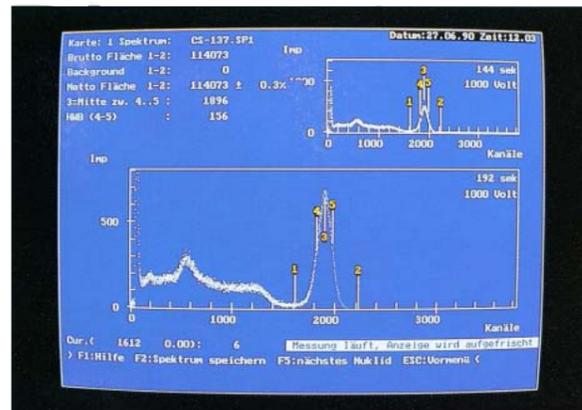
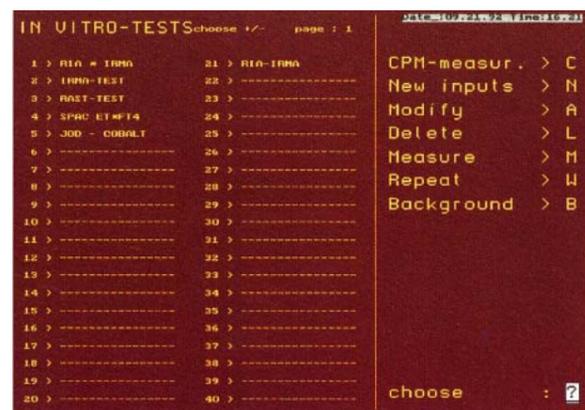
- up to 50 for each of the 120 parameters (600 in total) for long-duration-tests storable
- distribution of patient values for each test specimens can be called up separately
- reference curve for each RIA/IRMA test can be called up as average value of all individual tests

Continuous Measurement

of standard and patient samples

- also during curve calculation and during print-out, by examination of the curve
- thereby faster throughput of the complete test without unnecessary waiting times

After selection of the main menu the parameters required for a RIA/IRMA test can be put in.



RIA/IRMA-parameter

Test name : RIA-IRMA
Unit of concentrations : ng/ml
Meas.time (min.) : 1.0

Refer. values	Standard values	Control values	Patient values
Replicates:	Replicates: 2	Replicates: 3	Replicates: 2
enter	Concentrations	min. max.	Norm. range
Total : 2	1. : 0.250	1.20 1.70	from: 0.70
NSB : 1	2. : 0.500	4.30 6.10	to : 4.50
SD : 2	3. : 1.000	0.00 0.00	
	4. : 2.000	0.00 0.00	
	5. : 4.000	0.00 0.00	
	6. : 8.000		
	7. : 16.000		
	8. : 32.000		
	9. : 0.000		
	10. : 0.000		
	11. : 0.000		
	12. : 0.000		

Change default values : ? Curve calculation: smoothing spline

