

Technical data

Detector

NaI(Tl) volume 0.35 l, 76 x 76 mm (3"x3"), with bi-alkali PMT
Resolution better than 7.5% FWHM at 662 keV.

High voltage

Supply range 500 – 1000 V digitally controlled

Output

Positive impulses, rising time better than 0.5 μ s
Amplitude linear range max +2.5 V
Bipolar Shaping, time constant 1 μ s

Gain

Coarse gain: HV controlled
Fine gain: +/- 3 % in 1000 gain steps

Spectrum stabilization

Two point – offset and gain correction, 662 keV typ. at ch. 220
Precision +/- 0.1 ch.

ADC

Approximation, double buffered, high speed and high linearity
Conversion time 1.5 μ s
1024 channels down sampled from 65535
Digitally adjustable ADC zero +/- 80 mV
Digitally adjustable LLD range from 2nd – 30th channel
Automatic Dead time correction, precision better 0.25%

Nonlinearity

Integral max 0.1% of full scale within 95% of range
Differential max 3% of full scale within 95% of range

Communication interface

USB

Reference source

¹³⁷Cs - 9 kBq (0.25 μ Ci)

Power consumption

Power over USB, max 100 mA

Shielding

Lead, minimal thickness 85 mm, optionally steel

Environmental

Operating temperature range 0°C to +40°C
Storage temperature range -20°C to +70°C

Size and weight

HxWxD 770 mm x 360 mm x 620 mm
Weight 580 kg

Software requirements

Operating System Windows 2K, XP or Linux with
Kernel 2.6
Firebird SQL 2.0, Multiplatform (Windows, Linux)

FEATURES

- **Sensitivity** *Accurately measure the radioactivity in a given sample utilising a high sensitivity NaI(Tl) scintillator. Measurement sensitivity 0.02 Bq/g*
- **Multichannel Analyser** *Self contained 1024 channel pulse amplitude analyser*
- **Speed** *Full sample analysis in only 5 mins*
- **Ease of use** *With little training the operator can use the graphic menu driven interface.*
- **Calibration** *Optimised calibration eliminates long calibration times.*
- **Integration** *All data stored in multiplatform open source SQL database to allow easy integration into customer's own systems*
- **Analysis Data** *May be viewed, printed, archived or transferred to a network*

