

CRC-15 BETA[®] Calibrator

Two Calibrators in one

The CRC[®]-15 BETA combines our most popular dose calibrator (CRC[®]-15R) and Capintec's beta counting achievement (BETA-C[®]) into one convenient, complete system. This intelligent system changes detectors with the push of one key and is always ready to count with either detector. The CRC[®]-15 BETA's advanced system allows selection of over 86 nuclides with their half-lives simply by typing the nuclide name/number and pressing ENTER. This sets the system up to accurately count the nuclide selected. This functions for both gamma and beta counting. For facilities using beta nuclides such as Sr-89 or P-32 the CRC[®]-15 BETA assays syringes or vials giving results in Becquerel or Curie units. This system is designed to store over 100 nuclides in its memory and for up to 20, you can specify container effect compensation while defining calibration factors. Counts both gamma and high energy Beta nuclides.

This system is perfect for those facilities that want a precise, accurate, quick and simple way to count both gamma and beta nuclides. With the built-in auto-calibration, QC programs and system test, the CRC[®]-15 BETA allows you to utilize one complete system to do the work of two counting systems and at a cost that says VALUE



HIGHLIGHTS

- . Two-detector system using Ion Chamber and NaI detector
- . Only Dose Calibrator that can measure gamma and beta within +5% accuracy (based on sample)
- . Very simple and easy to use, offering a wide variety of features
- . Built-in auto-calibration, QC programs, background subtraction and system test



CRC-15Beta[®] Dose Calibrator**System Configuration**

- Push-button/auto-ranging or manual ranging system for FAST reading with Becquerel or Curie readout
- NaI Crystal in beta detector optimized for bremsstrahlung
- Pressurized deep well ion chamber for gamma
- Well Liner - Vial / Syringe Dipper
- Owner's Manual - Optional Printer

Power Requirements

Standard: 120V (90-125V), 0.1A, 50/60 Hz
 Optional: 220V (180-250V), 0.05A, 50/60 Hz
 Built-in power line filter and surge protection.

Digital Readout

Type: Liquid Crystal Display (LCD)
 128 columns x 64 rows - 128 x 64 pixels
 Readout: cpm or cps (Beta only), Ci or Bq (uses Cal# or Conversion Factor), Nuclide name, Cal# (Calibrator only)

Measurement Range: Ion Chambers

Maximum Activity: 8 Ci (300 GBq), (99mTc in CAPMAC) 6.5 Ci (240 GBq), (varies with isotope)

Resolution: 0.01 Ci (0.001 MBq)

Overall Accuracy: better than + 5% relative to a standard sample used to calibrate the system

Electrometer Accuracy: better than + 2%

System Precision: better than + 0.1% of Full Scale of Display

System Linearity: within + 2%

Response Time: (Low activity sample) within 4 or 16 sec.

Response Time: (All other) within 2 sec.

Repeatability: within + 1%

Measurement Range: Beta Counter

Type: Auto Ranging

Activity: 25 mCi of Sr-89, max.

Counting Rate: 50,000 counts per second

Energy Discrimination

Channels: Fixed 6 channel MCA

Channel Ranges: Ch1: 30-100 keV

Ch2: 100-200 keV

Ch3: 200-400 keV

Ch4: 400-660 keV

Ch5: 660-800 keV

Ch6: 800-over keV

Dimensions

Console: Height 12.2 cm 4.8 in.

Width 26 cm 10 in.

Depth 26 cm 10 in.

Weight 2.3 kgm 5 lb.

Beta Counter: Height 14 cm 5.5 in.

Width 8.3 cm 3.25 in.

Depth 32 cm 12.5 in.

Weight 6.8 kg 14.8 lb.

Well Chamber: Height 42 cm 16 in.

Diameter 17 cm 7 in.

Weight 16 kgm 35 lb.

Well Diameter 6 cm 2.4 in.

Well Depth 26 cm 10 in.

Cable Length 2.4 m 8 ft.

Cables: Power 1.8 m 6 ft.

Printer (optional) 1.8 m 6 ft.

CRC-PC (optional) 1.8 m 6 ft.

Ion Chamber 2.4 m 8 ft.

Beta Chamber 2.4 m 8 ft.

(Longer cables are available)

CRC-15BETA Calibrator**ACCESSORIES**

CRC-AD15 Auxiliary Display

Auxiliary Lead Shield For Beta Counter

RS-232 Serial Port

Okidata Dot Matrix Printer

Epson Roll Printer

Epson Ticket Printer

CRC-15R Enhanced Software

Replacement Well Dipper

Replacement Well Liner

REFERENCE SOURCES

Co-57 370MBq

Cs-137 7.4 MBq

