

# DOSE CALIBRATORS

FOR NUCLEAR MEDICINE AND PET CYCLOTRON



QUALITY | SPEED | PRECISION

We are one of the leading manufacturers of dose calibrators.

We deal directly with the initial design, mechanics and electronic and software development by providing a wide range of unique products for nuclear medicine laboratories, radiochemistry, radiopharmacy and calibration.



**VDC-606**  
**Touch Screen Dose Calibrator**

- 10" touch screen
- Easy to use
- Accurate and fast measurements
- FDA e Medical Device approved
- Available for vials and syringes
- VIK-202 or VIK-203 ionisation chamber

VDC-606 combines the best of both worlds: it has the versatile functionality of a software based dose calibrator and it is as robust as a stand-alone dose calibrator.

The device has an ergonomic and intuitive touch-based user interface and is optimised to support the work flow of the user.

Performing the quality controls is very easy and intuitive and the user is completely guided through the process.

With IBC-LITE software, the VDC-606 can perform the radionuclidic purity test of the radiopharmaceutical: the system takes a series of automatic measurements in a defined range of time (user definable) and it is able to determine radiopharmaceutical half-life and impurity percentage. The results are stored and it is possible to produce a report.



**VDC-603**  
**Plug&Play Dose Calibrator**

- Plug & Play
- Easy to use
- The cheapest on the market
- FDA and Medical Device approved
- Available for vials and syringes
- VIK-202 or VIK-203 ionisation chamber

VDC-603 read-out is the Plug&Play basic model in the dose calibrator family. It offers a simple and intuitive, three-key-operated, user interface. The small and efficient design and easy-to-use functionality is focussed on the measurement and checking of radioactive isotopes.

The highly accurate and reliable read-out of the ionisation chamber is presented in the one-line, backlit display: either in Becquerel or Curie, selectable by the user. Easy and straight forward, so ideal for any laboratory or hospital environment, without a need for extensive, automatic quality control or labels printing.

Due to its qualities VDC-603 is the ideal back-up or extra calibrator for a specific purpose.



**IBC**  
**Dose Calibrator with a reading software**

- Quality control tests for the ionisation chamber
- Simultaneous control of two ionization chambers
- Interface with IBC management software
- FDA and Medical Device approved
- Radionuclide purity test of the radiopharmaceutical
- VIK-202 or VIK-203 ionisation chamber

The IBC Dose Calibrator is a completely digital dose calibrator managed by IBC-LITE software: it offers a simple and user-friendly interface that supports all functions required for dose calibration when preparing radiopharmaceuticals.

The ionisation chamber is connected directly to a PC with Windows (not supplied).

IBC- LITE is compatible with all Comecer management software for Nuclear Medicine and Radiopharmacy: IBC Clinic, IBC NM, IBC RP e IBC GMP.

The IBC dose calibrator is suitable for use in Nuclear Medicine and Radiopharmacy: it can be easily integrated into any type of cabin Microbiological Safety Cabinet, into dispensing hot cells and shielded isolators.

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## Ionisation chambers

The heart of every Comecer dose calibrator is the ionisation chamber: a completely digital detector that gives a fast, reliable reading. The 100% digital output allows the detector to be flexibly integrating into other instruments or structures with no need for a converter or a separate reading unit.

The VIK-202 ionisation chamber is pressurised at 14 bar (absolute) of Argon and its measurement range is up to 2 Ci (74 GBq) of F-18; the VIK-203 ionisation chamber is also available, pressurised at 1.4 bar (absolute) of Argon, for a measurement range of up to 20 Ci (740 GBq) of F-18.

As Comecer produces its own ionisation chambers in-house, we can evaluate dimensions or measurement features dedicated to individual needs.

Technical data - Ionisation chambers	VIK-202	VIK-203
Ionisation chamber	Pressurised (14 bar abs. Argon)	Pressurised (1.4 bar abs. Argon)
Ionisation voltage	150 V lithium battery	
Well size	69 mm Ø x 280 mm	
Well liner (inside)	57 mm Ø x 270 mm	
Saturation	>200 GBq (Tc-99m), >70 GBq (F-18) >6 Ci (Tc-99m), >2 Ci (F-18)	>2000 GBq (Tc-99m), >700 GBq (F-18) >60 Ci (Tc-99m), >20 Ci (F-18)
Energy range	25 keV - 3 MeV	
Lead shielding	3 mm Pb	
Linearity	± 1 % between 1 MBq and 200 GBq (Tc-99m)	± 1 % between 50 MBq and 700 GBq (Tc-99m)
Electrometer accuracy	± 1 %	
HV test accuracy	± 5 %	
Temperature coefficient	0,1%/°C between 10°C and 40°C at 5 MBq and up	
Reproducibility	± 1% over 24 hours, stable conditions	
Overall accuracy	± 3 % dependant of specific calibration source and geometric variations	
Response time	Maximum 2 seconds for 95% of the end value	
Ranges	Three ranges (Auto ranging)	
Gain	Digital adjustment	
Bias correction	Digital adjustment	
Zero adjustment	Digital adjustment	
Calibration	Digital adjustment	
Background subtraction	Digital control	
Battery test	Digital control	
Interface	Ionisation chamber interface	
Power supply	5 VDC, 250 mA	
Cable	2,5 meters	
Dimensions	150 mm Ø (bottom 160 mm) x 451 mm height	
Weight	15.5 kg	



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