

FlowCountPRO

Flexible remote detection unit for HPLC



The FlowCountPRO is a flexible controlling unit designed for the remote detection of a wide range of radioisotopes with HPLC

General Information

The FlowCountPRO System is a flexible system for radioisotope detection of a wide range of radionuclides e.g., with HPLC. It consists of a base unit, power supply and up to six different detectors, including various shieldings and flow cells. The FlowCountPRO is operated as a stand-alone device without software and PC.

Stand-alone operation

With various detectors connected to the FlowCountPRO the system can be used for real time activity measurement. The integrated touchscreen display allows for the easy adjustment of parameters and quick surveillance of the probes.

Two separate channels enable the FlowCountPRO to monitor two separate detectors at the same time.

Operation with HPLC System

FlowCountPRO can be interfaced to existing chromatography data systems thanks to variable voltage output ranges (200 mV / 2 V) and pulse outputs (up to 500 kHz).

Application examples

- Radiopharmaceutical analysis (^{99m}Tc , ^{111}In , ^{125}I , ^{123}I , ^{131}I , ^{90}Y)
- HPLC Analysis of ^{125}I and ^{32}P labeled compounds
- Monoclonal antibody labeling and analysis (^{125}I , ^{131}I , ^{90}Y)
- Protein and DNA labeling and analysis (^{32}P , ^{125}I)
- PET tracer analysis (^{68}Ga , ^{18}F , ^{11}C)

Features and Benefits

- Easy-to-use system with maximum flexibility
- Stand-alone device
- Display for easy setup and probe surveillance without PC
- Updateable via SD-card
- Compatible with all chromatography data systems by variation of output voltage
- Various lead shielded detectors and easily adjustable flow cells and holders for most types of applications (see page 2)
- Capable of monitoring two detectors simultaneously
- Simultaneous connection of all three detector types (PMT, PIN diode, analog) to both channels possible
- Output analog and pulse to connect to any HPLC System
- Coincidence mode for use with PET Metabolite HPLC detector

Technical Specifications

Dimension: 190 x 133 x 94 mm / 7.5" x 5.2" x 3.7" (L x W x H)
Weight: 1.5 kg / 33.1 lbs.



FlowCountPRO

Detectors, Holders and Flow Cells

A variety of interchangeable detectors, holders and flow cells are available and provide the system with the flexibility to measure a wide range of isotopes and activities.

The FlowCountPRO can be connected to specially configured photomultipliers and/or PIN diode detectors to detect gamma, high energy positron and beta emitters at both high and low levels of activity. Background interference is reduced by fully variable energy window settings. Miniature detectors (diode and analog) can fit into small locations and can operate up to 12 feet away from the base unit, making shielding easier.

Depending on the nuclide and amount of activity the operator can optimize the setup of the flow cell.

The following detectors, holders and flow cells are available:

Type	
FC-3100	Nal/PMT based detector is a low energy gamma (10 – 60 keV) detector used primarily for ¹²⁵ I
FC-3200	Nal/PMT based detector is a high energy gamma (60 - 1500 keV) detector used in most nuclear medicine applications
FC-3300	Nal/PMT based detector is a wide range gamma detector with built-in lead shielding to reduce background. It uses a well configuration which gives 4 pi counting geometry (> 20 keV)
FC-3400	PIN Diode detector is compact and easy to shield. It has a high count rate capability and low sensitivity to provide a linear range from 10 µCi to 1 Ci for most gamma emitters (>25 keV)
FC-3500	PIN Diode detector is compact and easy to shield. It uses a CsI crystal to provide greater sensitivity for gamma. With the shielding FC- 5260, the FC-3500 is recommended for quality control of high activity ¹⁸ F labeled compounds (> 100 keV)
FC-3600	Plastic Scintillator/PMT based detector is ideal for the detection of high energy beta and positron emitters such as ³² P, ⁹⁰ Y, ¹⁸ F, ¹¹ C, ¹³ N (> 30 keV)
FC-4100	Dual BGO/PMT detectors with 1.4" diameter BGO scintillation crystals are used for coincidence detection
ADII	CsI based detector for high energy gamma (> 100 keV) radiation, separate use or integrated into the Modular-Lab HPLC System
Holders	
FC-4300	Detector holder and flow-cell tubing adapter
FC-5101	Holder and flow-cell (for PMT)
FC-5102	Holder and flow-cell (for diode)
FC-5200	Lead shielded (0.5") holder and flow-cell; for use with high activity gammas (for PMT)
FC-5250	Heavily Shielded (2.0") lead holder and flow-cell; for use with PET isotopes (for PMT)
FC-5260	Heavily Shielded (2.0") lead holder and flow-cell; for use with PET isotopes (for diode)

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