

# Radioflow Detector LB509 Data Sheet

## Detect radiolabelled compounds by HPLC

The new Radioflow Detector LB509 can be used to detect radiolabelled compounds by flow-through monitoring using HPLC. The Radioflow Detector LB509 can detect all isotopes, including alpha, beta, and gamma radiation, and is also suitable for PET applications. Together with an HPLC system from KNAUER, radioactive flow can be continuously monitored and detected. For admixture applications, an additional liquid scintillator pump can also be integrated (e.g. the **Knauer WellChrom Pump K-120**). The detector is available as either a "stand-alone" version with output to a conventional data station (e.g. ChromGate® Software) or as a fully PC-driven system with control from RadioStar software. RadioStar is a complete mass and radiochromatography package and provides control of the detector as well as full data reduction. Fraction collectors, dynamic splitters and waste valve diverters can also be controlled for safe handling of radioactive waste or programmed collection of labelled compounds. The Radioflow Detector LB509 offers the widest range of flow cells for all types of radioisotopes and applications, including high pressure cells (HPLC/MS), microbore, gamma, Cerenkov, and unique YG solid scintillator types. The flow cell is positioned between the photocathodes of two highly sensitive 2" photomultiplier tubes operating in coincidence in the same way as a conventional liquid scintillation counter. The coincidence time for each type of scintillator will vary but through the use of Optimized Coincidence Time (O.C.T.), background and efficiency (E2/B ratio) are also improved to provide the lowest detection limits available in any radioflow detector.

### Compact and versatile...

The Radioflow Detector LB509 is the newest radioflow detector from BERTHOLD TECHNOLOGIES, a leader in the field of radiochromatography for nearly 30 years. Together with an HPLC system from KNAUER, you are ensured of reliable results from a flexible system which is easy to use. Shown here is the Radioflow Detector LB509 with the Knauer Smartline Manager 5000, Smartline Pump 1000, and WellChrom Pump K-120. Additional configurations including features such as automatic sample injection, fraction collection, micro-bore flow rates or preparative flow rates are also available.

Technical Data and Ordering Information

#### Detection

**Detector Type** flow-through radioactivity monitor

#### **Features**

**D/A Conversion** High resolution 16 bit D/A converter; digital oversampling ensures 100% compatibility with Knauer ChromGate® software without data loss or data smoothing

**Preset Counting Protocols** integrated for all common single and dual isotope counting applications. Other isotopes can be counted through freely selectable counting parameters.

**Fraction Collection** online peak detection allows control of collector/waste valve independent of data station software

# **Technical Parameters Standalone Control**

From simple soft key interactive display

#### **RS-232**

Interface for direct connection to a PC

# TTL Outputs

For each channel

**Power Supply** 115 and 230 V versions available; 50/60 Hz

**Dimensions** 465 x 195 x 430 mm (W x H x D)

Mass 8.5 kg

### **Ordering Information**

Order No. **Radioactivity Detection System** A1641 Radioflow Detector LB5091, 230 V A1642 Radioflow Detector LB5091, 115 V



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