

Chemiluminescence Detector

CL-2027



The Model CL-2027 chemiluminescence detector is equipped with JASCO's uniquely designed coiled PTFE tube flow cell placed immediately next to a highly sensitive end-on PMT. The flow cell, combined with digital filtering allows the CL-2027 to boast the highest S/N ratio in its class. The CL-2027 satisfies the need for optimum chemiluminescence detection limits as demand increases for detection of trace amounts of lipids, nucleotides, nitrogen oxides (NO_x) and catecholamines. The CL-2027 can easily be interfaced with the JASCO HPLC system using the JASCO chromatography data systems.

Advantages of chemiluminescence detection

Chemiluminescence (CL) detection does not require an excitation light beam, an essential element in fluorescence detection that produces unavoidable light scattering resulting in high background noise. The chemical excitation process enables much simpler instrumentation, greater sensitivity and wider linear dynamic range in comparison with conventional fluorescence detection. These advantages are now acquiring growing interest as a detection principle in liquid chromatography.

- **Ultra-trace amounts detection**

The ability to measure trace amounts of compounds is one of the inherent advantages of the chemiluminescence technique. Advances in chemical software including the development of high chemiluminescence efficiency reagents make femtomol (10-15 mol) level detection a reality.

- **Unique flow cell design**

JASCO's unique design of PTFE tubing flow cell positioned immediately in front of the high sensitivity end-on PMT detector maximizes the signal from even small chemiluminescence reactions. Digital filtering further enhances signal intensity and provides highly-reliable quantitative data particularly in applications requiring the ultimate in detection limits.

- **Easy-to-use operation**

As with the other LC-2000Plus Series HPLC modules, the CL-2027 is both simple and convenient to operate. Both sensitivity range and gain selections are time programmable allowing the unit to be optimized for detection of multiple peaks. The CL-2027 also has comprehensive self diagnostics built-in to ensure maximum productivity. Bulkhead fittings and standard analog outputs allow the CL-2027 to be easily connected to any existing LC system.



SPECIFICATIONS

Detection wavelength:	300 ~ 600 nm
Detector:	Photomultiplier
Range:	1 to 256 and S in 10 steps
Gain:	x1000, x100, x10 and x1
Response:	Fast, Standard and Slow (CR filter) and 3, 5, 10, 20 and 40 (Digital filter)
Recorder output:	10mV/full scale
Integrator output:	1V/full scale
Inputs:	Marker, Auto-zero, and Program reset/run
Outputs:	Marker, and Leak
Time programming:	65 steps, 0.1 to 999.9 minutes in 0.1 minute increment for Range and Gain
Self-diagnostics:	Internal memory check, DC power supply check.
Safety aids:	Leak detection and leak output signal for shutdown pumping system
Wetted materials:	PTFE, stainless steel
Dimensions:	150 (W) x 470 (D) x 150 (H) mm
Weight:	Approx. 8 kg
Power input voltage:	AC 100 ~ 240 V \pm 10% 50/60Hz
Power consumption:	85 VA

STANDARD ACCESSORIES

Recorder cable	1 pc
Marker cable	1 pc
AC power cable	1 pc

ORDERING INFORMATION

6836-J002B	Model CL-2027	Chemiluminescence Detector
6824-J002B	Model UV-2070	UV/VIS Detector (~ 900 nm)
6825-J002B	Model UV-2075	UV/VIS Detector (~ 600 nm)
6826-J002B	Model UV-2077	Multi-wavelength UV/VIS Detector
6832-J002B	Model MD-2015	Diode Array Detector (~ 900 nm)
6831-J002B	Model MD-2010	Diode Array Detector (~ 600 nm)
6829-J003B	Model FP-2020	Fluorescence Detector
6833-J002B	Model RI-2031	Refractive Index detector
6838-J002B	Model CD-2095	Circular Dichroism Detector
6837-J002B	Model OR-2090	Chiral Detector
6818-J002B	Model PU-2080	HPLC Pump
6823-J003B	Model PU-2089	Quaternary HPLC Pump
6820-J002B	Model PU-2085	Semi-micro HPLC Pump
6821-J002B	Model PU-2086	Semi-preparative HPLC Pump
6822-J002B	Model PU-2087	Preparative HPLC Pump
6819-J002B	Model PU-2080i	Bio-inert HPLC Pump
6823-J004B	Model PU-2089i	Bio-inert Quaternary HPLC Pump
6828-J008B	Model AS-2059	Autosampler
6827-J005B	Model AS-2055	Autosampler
6827-J006B	Model AS-2057	Autosampler
6834-J002B	Model CO-2060	Column Oven
6835-J002B	Model CO-2065	Column Oven



● Specifications are subject to change without notice.

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