

Model D48 Detector Module



The Model D48 Detector Module is a complete detector assembly that combines a motorized filter wheel, shutter and photon-counting photomultiplier in a compact enclosure. The Detector Module is designed for high-sensitivity fluorescence detection of single or multiple emission wavelengths.

The Detector Module uses a filter wheel for wavelength selection. It incorporates

either a four-position filter wheel for 1 inch diameter filters or an eight-position filter wheel for ½ inch diameter filters. Light enters the module via a flexible light guide. The light guide provides maximum flexibility for interfacing the detector to a fluorescence microscope, a cuvette assembly, a surface fluorescence probe or other custom user-specific devices. The detector is software-controlled using the Model PC-DAQ Controller which resides in your PC. Together with Windows[®]-based software, the detector can implement single or multiwavelength detection schemes. The filter wheel can be set to spin, hold a specific position or access filter positions in a programmed fashion. Custom software drivers can be supplied for user-specific control functions or for OEM applications.

The Model D48 Detector Module can be purchased as part of a complete fluorometer system or separately to serve as a stand-alone detection system. It can also be added to fluorescence imaging systems to provide a faster and more sensitive means of fluorescence detection and quantitation. In this application, data gathered using this detector with the Model PC-DAQ controller is immediately available without time-consuming image analysis.

SPECIFICATIONS*:

Size: 7 ½ (w) X 12 ½ (l) X 6 (h) inches.

Weight: 14 pounds.

Power Requirement: 100 – 240 VAC, 50 or 60 Hz, 1.6 Amps.

PMT: 1 inch diameter end-on shielded BiAlkali (Multialkali also available).

PMT and Filter wheel motor power source: Internal power supplies.

Optical Interface: 3 mm diameter flexible light guide, 1 m long.

Shutter: Internal, software controlled.

Filter wheel timing:

Spinning: 1 msec per filter position maximum speed (1 kHz) using 8 position filter wheel

2 msec per filter position maximum speed (500 Hz) using 4 position filter wheel

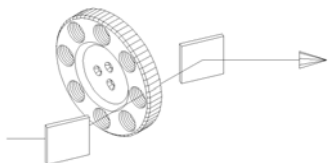
Jitter (spinning): <0.5% RMS

Programmed access: <70 msec between any two positions using 8 position filter wheel

<100 msec between any two positions using 4 position filter wheel

I/O Interface: DB-15 connector, proprietary CMOS logic.

PMT output: BNC connector, TTL logic (Photon counts).



C&L Instruments, Inc.

314 Scout Lane

Hummelstown, PA 17036

Telephone: 717-564-9491, Fax: 802-609-1713

www.fluorescence.com

*Subject to change without notice.