



COMPLETE SYSTEM FOR
WAVELENGTH SWITCHING

INTEGRAL SHUTTERING

INTEGRAL NEUTRAL DENSITY FILTERING

TWO OUTPUTS FOR MONITORING
FILTER POSITION

TURBO BLANKING



LAMBDA DG-4/DG-4PLUS HIGH SPEED WAVELENGTH SWITCHER

The **Lambda DG-4/DG-4PLUS** is a complete illumination system offering speed and versatility for experiments requiring rapid wavelength switching. The instrument retains all the advantages of interference filter based systems, yet eliminates the temporal constraints imposed by traditional filter changing devices like filter wheels. Switching between adjacent filters is achieved in 0.5msec in the **DG-4PLUS** (1.0msec in the standard **DG-4**) allowing the user to perform real-time video imaging. The high switching speed of the **Lambda DG-4/DG-4PLUS** facilitates the ability to follow fast changes in ion concentrations in dual wavelength ratio imaging applications and to monitor other concomitant changes in the studied system at additional wavelengths.

Narrow bandpass systems, such as single cavity interference filters, grating monochromators, and A.O. modulators, pass unwanted harmonics of the desired wavelength. Also, with variable wavelength

devices, it is not always possible to obtain sufficient blocking of out-of-band wavelengths. Modern interference filters, as used in the **Lambda DG-4/DG-4PLUS**, do not pass harmonics and have integral blocking characteristics 1000 times better than typical monochromator systems. For the same full width at half maximum (FWHM), interference filters have a narrower spectral bandpass than monochromators due to the absence of the slit function. The **DG-4PLUS** has 30% greater output than the standard **DG-4**.

The dual galvanometer design of the **Lambda DG-4/DG-4PLUS** allows tuning of the relative intensities at each wavelength. This adjustment is difficult to obtain in variable wavelength devices with a single optical path. Unlike monochromators and other wavelength selective systems, the **Lambda DG-4/DG-4PLUS** can be used as a source of white light when required.

DG-4

Includes Lambda **DG-4** unit, pre-aligned xenon arc bulb, 4 slide-in filter holders, 1 neutral density filter holder, power cord, serial and parallel cables, liquid light guide, spanner wrench, and manual

DG-4/OF DG-4 with ozone-free 175 Watt bulb

DG-4/OF30 DG-4 with ozone-free 300 Watt bulb

DG-4/FS DG-4 with full spectrum 175 Watt bulb

DG-4/FS30 DG-4 with full spectrum 175 Watt bulb

DG-4PLUS/OF30¹ DG-4 Plus with ozone-free 300 Watt bulb

DG-5

Includes Lambda **DG-5** unit, pre-aligned xenon arc bulb, 5 slide-in filter holders (three 18mm and two 25mm), 1 neutral density filter holder, power cord, serial and parallel cables, liquid light guide, spanner wrench (18 and 25mm), and manual

DG-5/OF DG-5 with ozone-free 175 Watt bulb

DG-5/OF30 DG-5 with ozone-free 300 Watt bulb

DG-5/FS DG-5 with full spectrum 175 Watt bulb

DG-5/FS30 DG-5 with full spectrum 175 Watt bulb

DG-5PLUS/OF30¹ DG-5 Plus with ozone-free 300 Watt bulb

1. DG-4PLUS version switches in 0.5msec and has 30% greater output

SUTTER INSTRUMENT

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