



CONTROLS THREE WHEELS AND TWO OPTIONAL SHUTTERS

40 MSEC SWITCHING TIMES

SMARTSHUTTER™ SUPPORT AND UNIBLITZ® DRIVERS

SERIAL, USB, AND PARALLEL INTERFACES

## LAMBDA 10-3 OPTICAL FILTER CHANGER

The **Lambda 10-3** is the latest generation of Sutter's high performance filter wheel changers. The controller offers faster switching times, synchronous independent control of up to 3 filter wheels and 2 shutters, and expanded communication interface options. Recent advances in motor technology allow the **Lambda 10-3** to achieve switching times of 40msec between adjacent filters. In addition, the controller commands can now be accessed via USB, serial, parallel, and keypad interfaces.

The **Lambda 10-3** controls a variety of standard Sutter filter wheels including the popular 10 position 25mm wheel, a lighter 4 position 25mm wheel, a 10 position 32mm wheel, 5 position 50mm wheel, and a compact belt-drive 4 position wheel. There are seven speed settings available to optimize the rate of movement in accordance with the load of the wheel. The **Lambda 10-3** can operate up to 40msec switching time with the traditional 25mm filter wheel as well as our newer, high-speed 32mm version. The 4 position wheel (LB10-NWHS4) provides additional speed and can achieve switching times of less than 33msec. Nearly all of our filter wheels employ a direct drive system. This design

eliminates problems with belt slippage and backlash, assuring that our wheels are exceptionally robust.

In addition to filter wheels, the **Lambda 10-3** controller supports our patented stepper-motor controlled **SmartShutter™** as well as the Uniblitz® shutter. Either shutter can be mounted directly onto the wheel, providing a compact wheel/shutter package for systems with mounting constraints.

Both shuttered and non-shuttered filter wheels can be installed directly on the microscope in a number of locations: excitation, emission, Keller ports, and the trinocular head. Up to two excitation and/or neutral density filter wheels can be used with the **Lambda LS** xenon light source and liquid light guide, in vibration sensitive systems. The **SmartShutter** can be mounted independently from the wheel in any location in the light path (including the **Lambda LS** and **Lambda DG-4/DG-5**), and driven in a standalone configuration by the **Lambda 10-3** controller. Microscope specific adapters necessary for any configuration of wheels and shutter are available.

### CONTROLLER

**LB10-3**  
Includes one **Lambda 10-3** controller unit, serial, USB, parallel, and power cables and manual

### WHEELS

25mm Filter Wheels - 10 position

**LB10-NW**  
10 position 25mm filter wheel without shutter

**LB10-NWIQ**  
10 position 25mm filter wheel with **SmartShutter™**

**LB10-NWS**  
10 position 25mm filter wheel with Uniblitz® shutter

**LB10-NWE**  
10 position 25mm filter wheel set up for emission

32mm Filter Wheels - 10 position

**LB10-W32**  
10 position 32mm filter wheel without shutter

**LB10-W32IQ**  
10 position 32mm filter wheel with **SmartShutter™**

**LB10-W32S**  
10 position 32mm filter wheel with Uniblitz® shutter

Visit [www.sutter.com](http://www.sutter.com) for other filter wheel options.

**SUTTER INSTRUMENT**

One Digital Drive • Novato • CA 94949 • Phone 415.883.0128  
Fax 415.883.0572 • Web [www.sutter.com](http://www.sutter.com) • Email [info@sutter.com](mailto:info@sutter.com)

