



Filter interchange is quick and easy in our new Motorized Filter Wheel Systems.

- Remote filter selection via computer or TTL controller
- Hold 6 filters simultaneously
- Easy and quick filter insertion and removal
- Thin profile

These **new** filter wheel systems hold up to six 1.0 inch (25.4 mm) diameter filters or apertures. The clear aperture is 0.87 inch (22 mm). Use a filter wheel as a low cost monochromator, with narrow or broad bandpass filters; as a variable attenuator with neutral density filters; or to hold order sorting filters for your monochromator.

### QUICK AND EASY FILTER INSERTION

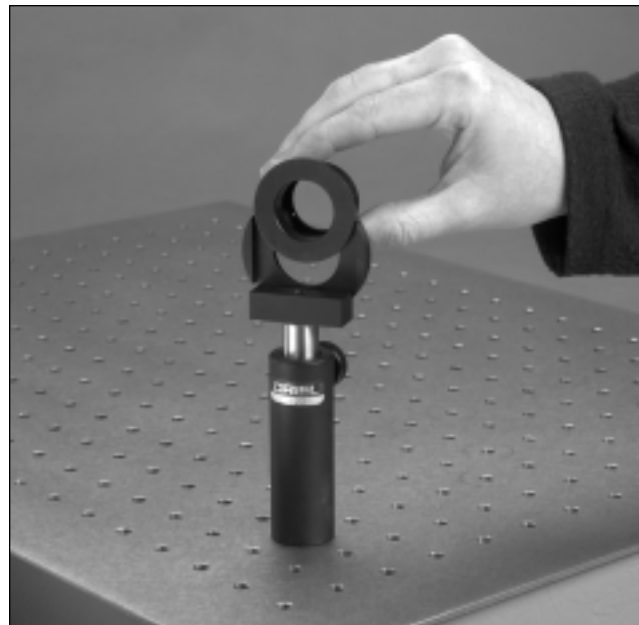
The filter wheel has a unique design. Each of the six positions holds a filter holder that snaps in and out of place, and is accessed from the top of the wheel. This means that you can mount all your 1 inch filters in the holders, and have them ready for quick insertion into the wheel. We include six filter holders with each wheel; others are available separately, under model 74011.

### OPTIONAL ROD MOUNT

The 74012 Rod Mount holds a single 74011 Filter Holder atop an optical rod, for use anywhere in your lab. A 1 inch (25.4 mm) long optical rod is included with the 74012. (The 74012 includes a 74011 Filter Holder.)

### OPTIONAL FLANGE MOUNT

The 74013 is a 74011 Filter Holder Assembly inside our 62020 Flanged Holder. It is a convenient filter mount to place in the middle of an optical path. The flanges on the 62020 couple to male or female 1.5 inch Series Components, and the filters snap in and out of the 62020 without breakdown of your set-up. See page 1-164 for more details, and a dimensional diagram of the 62020.



74012 Rod Mount with 74011 Filter Holder

### TWO MODELS OF CONTROLLERS

We offer two filter wheel systems; the only difference is the controller.

- 74040 Low Cost TTL Filter Wheel System
- 74041 RS-232 and IEEE-488 (GPIB) Filter Wheel System

#### Low Cost TTL Filter Wheel System

The 74040 uses a simple TTL controller to drive and command the filter wheel. A TTL signal moves the filter wheel to the next position. The TTL signal is accessed via a BNC connector on the control box.

The controller has a manual “forward” button which moves the filter wheel to the next position. A display shows the current filter position.

#### RS-232 and IEEE-488 Filter Wheel System

Choose the 74041 if you are integrating the filter wheel into an optical system using other instruments (i.e. monochromator, detector), or if you simply want PC control of your filter wheel. The 74041’s controller has RS-232 and IEEE-488 (GPIB) computer interfaces and a manual “forward” button which moves the filter wheel to the next position.

#### Command Set and LabView™ VIs Included

We include software development tools with the 74041 to facilitate the writing of your own filter wheel control program. These are:

- Command Set (similar to BASIC program commands)
- LabView™ VIs for RS-232 and IEEE-488

Lenses

Filters

Polarization Optics

Windows, Substrates & Mirrors

Prisms & Beam Splitters

Optical Coatings

Properties of Optical Materials

**FOR AUTOMATED MONOCHROMATORS...**

If you're using an Oriel Cornerstone™ or MS257™ Monochromator, choose the dedicated filter wheels described on the individual monochromator pages. Those filter wheels do not require a controller or power supply; the monochromator and its controls provide the necessary power and commands.

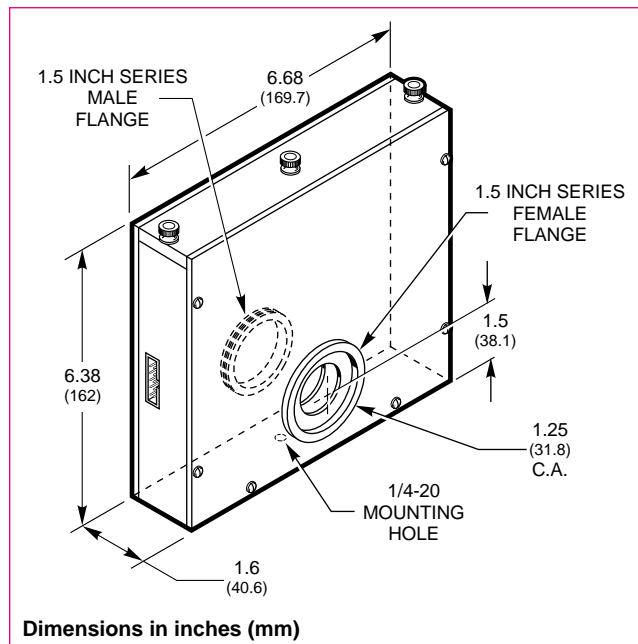
**MOUNTING**

The filter wheel has a 1/4-20 tapped hole for rod mounting, and 1.5 Inch Series male and female flanges for coupling directly to Oriel instruments, such as detector housings, lamp housings and monochromators.

**SPECIFICATIONS**

Filter dimensions:  
 Diameter: 1.0 inch (25.4 mm)  
 Min. thickness\*: 0.1 inch (2.5 mm)  
 Max. thickness: 0.4 inch (10.2 mm)  
 Filter changeover time: <2 s for adjacent positions

\* For filters less than 0.1 inch (2.5 mm) thick, order the 77366 Filter Spacer.



**Fig. 2 Dimensional diagram of Motorized Filter Wheel.**

**ORDERING INFORMATION**

- 74040** Low Cost TTL Filter Wheel System
- 74041** RS-232 and IEEE-488 Filter Wheel System
- 74012** Rod Mount for 74011 Filter Holder (one 74011 is included)
- 74013** Flanged Filter Mount
- 74011** Filter Holder (six are included with filter wheel systems)
- 77366** Filter Spacer Holds filters less than 2.5 mm thick in the Filter Wheel (and 74011 Filter Holder)

**Also see these pages...**

See the following pages for some of our filters

Colored Glass Filters .....	page 10-4
Neutral Density Filters .....	page 10-18
Narrow Bandpass Filters .....	page 10-33
Broad Bandpass Filters .....	page 10-38
Long Pass and Short Pass Filters .....	page 10-41