

## **Flexible Wavelength Selector (FWS)**

*Monochromator replacements for spectroscopy and spectral imaging*



Automated FWS



High Resolution FWS



Basic FWS



CenterLine FWS



Custom Wavelength Selector

### ***Ideal for***

- Fluorescence microscopy
- Hyperspectral imaging
- Life sciences instrumentation
- Machine vision
- Laboratory research

### ***Key product advantages***

- Broad wavelength tuning
- Smoothly adjustable bandwidth (FWHM 2 nm – 16 nm)
- Large (up to 10 mm diam.) circular aperture
- High ( $10^5$ ) out of band extinction
- Compact rugged optomechanical package
- In-line operation for easy integration
- No beam deviation or walk-off during tuning

Based on our patented TwinFilm™ technology, the Flexible Wavelength Selector is a uniquely compact opto-mechanical device that combines the wavelength tuning and bandwidth adjustment of a grating monochromator with the imaging advantages of a large aperture filter. With both high ( $10^6$ ) out of band extinction and excellent (> 75%) transmission, the Flexible Wavelength Selector is a simple, turnkey solution for any imaging applications that require wavelength control, throughout the extended visible spectrum. Plus the in-line configuration, together with no wavelength associated displacement (neither deflection nor walk-off), means the FWS is simple to integrate with cameras, microscopes and other instruments.

The FWS features independent control of both center wavelength and bandwidth. Five models are offered based on fully automated (motorized) control, manual control, and fixed output operation.

#### Automated Flexible Wavelength Selector

This fully automated device incorporates two DC actuators to rotate the bandwidth and center wavelength controls. A simple to use, intuitive GUI and a set of serial commands enable straightforward integration by OEMs and end users. Full specifications are listed [here](#).

#### Basic Flexible Wavelength Selector

The basic manual format features three knurled knobs-two for adjusting the center wavelength and the transmission bandwidth and one for compensating the beam direction offset. Basic models are ideal for microscopy applications, such as optogenetics, where the wavelength and the bandwidth can be rapidly adjusted and set. Full specifications are listed [here](#).

#### CenterLine Flexible Wavelength Selector

The centerline manual format features two knurled knob-one for adjusting the center wavelength with a fixed bandwidth of around 20 nm and one for compensating the beam direction offset. Centerline models are ideal for machine vision systems and some microscopy applications, where the wavelength can be rapidly adjusted and set. Full specifications are listed [here](#).

#### High Resolution Flexible Wavelength Selector

The high resolution manual format features two precision multi-rotation dials for adjusting the center wavelength and the transmission bandwidth. The third knob is used for compensating the beam direction offset. High resolution models are ideal for chemical imaging type applications, where the wavelength can be rapidly adjusted and set to an emission or absorption peak of the sample. Full specifications are listed in [here](#).

#### Custom Wavelength Selector

Fixed(non-adjustable) versions of this device combine off-the-shelf convenience with completely custom (bandwidth, center wavelength) performance for applications needing user-specified bandpass filters. These Custom Wavelength Selectors can usually be shipped in 48 hours or less after ordering. Full specifications and ordering information are listed [here](#).