

SELECTABLE BANDWIDTH TUNABLE OPTICAL FILTER

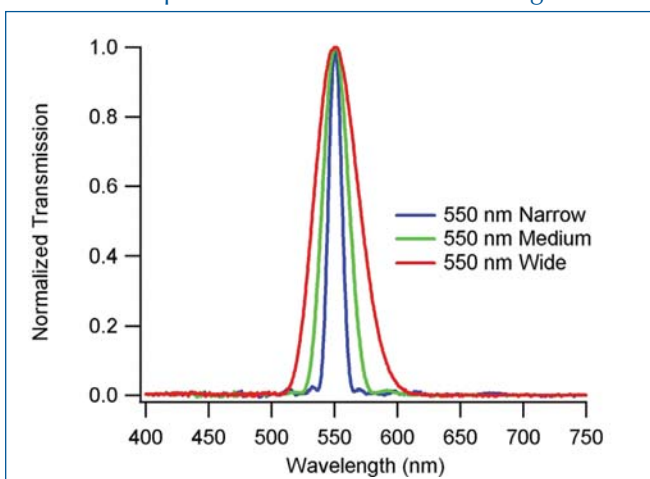
By utilizing multiple liquid crystal variable retarders and polarizers, this tunable filter allows the user to switch between any wavelength from 420 to 730 nm. In addition to the tunability of wavelength, this filter also allows the user a choice of three different bandwidth sizes at each wavelength. Selecting a wider bandwidth, one can increase the overall transmission of broadband light whereas the narrow FWHM can pass only a few wavelengths from a broadband light source.

All tunable optical filters from Meadowlark Optics come with three components: the optical head, the controller, and the software necessary to run the tunable optical filter. This software can be installed and run on any Windows based PC through either the USB or serial port while using the provided FilterDRIVE software or commands in C++, MatLab or LabVIEW.



Meadowlark optics excels at providing customized Tunable Optical Filters for a variety of applications. This filter can also be customized to achieve different bandwidths, wavelength ranges or any of the other specifications.

Comparisons of Three FWHM Settings

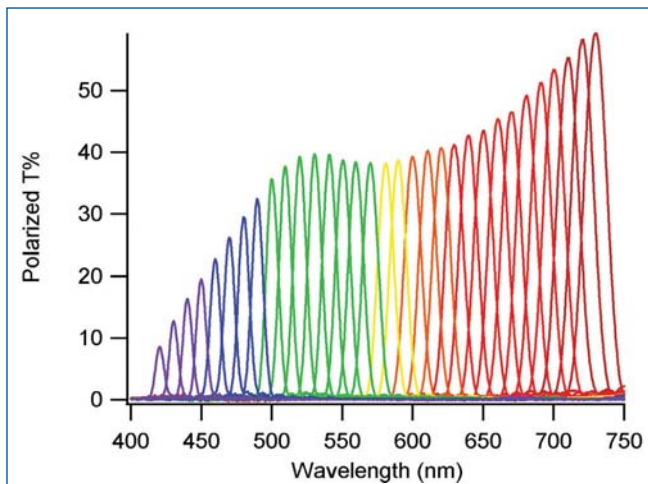


Typical transmission at 550 nm for different FWHM bandwidth settings.

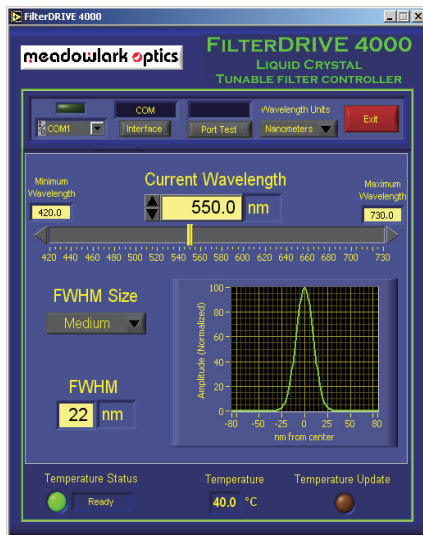
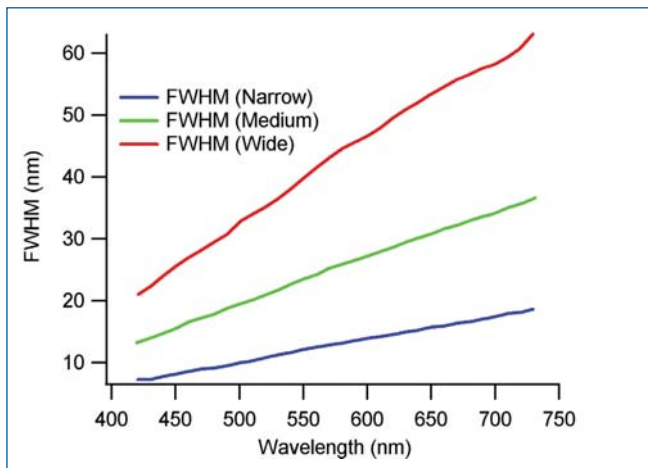
Key Features

- Visible spectrum tuning range
- Selectable bandwidth FWHM
- 1/4" -20, C-mount threads
- Turnkey system included
- Multiple control interface options

Typical Transmission Spectra (Narrow Bandwidth)



FWHM vs. Wavelength



SPECIFICATIONS

Wavelength Range	420 - 730 nm
Clear Aperture Diameter	20 mm
Typical FWHM at 550nm *	12 nm (Narrow) 24 nm (Medium) 39 nm (Wide)
Polarized Peak Transmission**	5 - 60%
Tuning Resolution	0.1 nm
Tuning Accuracy	FWHM/10
Field of View (Half Cone Angle)	±6°
Switching Speed	Long to Short Wavelengths Short to Long Wavelengths
	< 100 ms < 500 ms
Temperature Range	10°C - 35°C
Laser Damage Threshold	1 W/cm ² , CW 200 mJ/cm ² , 20 ns, visible 2 J/cm ² , 20 ns, 1064 nm
Out-of-Band Blocking (Average)	> OD2
Optics Head Dimensions (L x W x H)	2.50 x 3.50 x 2.08 in.
Controller Dimensions (L x W x H)	9.50 x 6.25 x 1.50 in.
Total System Weight	4 lbs.

Minimum Systems Requirements

- PC with Windows™
- USB or RS232 COM Port
- Use of LabVIEW Instrument Library requires LabVIEW version 6.1 or higher

* FWHM is dependent on wavelength. Please see previous page for more information.

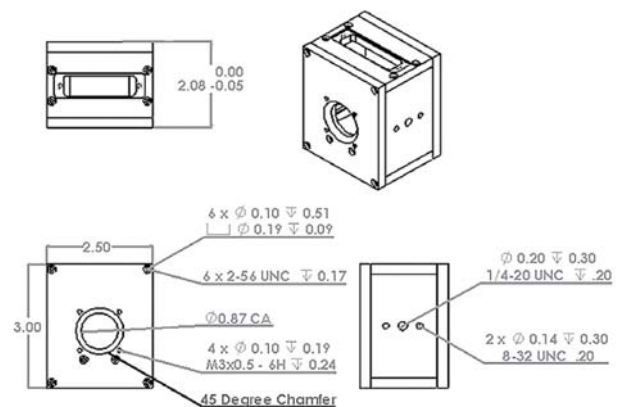
** Transmission is dependent on wavelength. Please see previous page for more information.

Custom versions are available.

ORDERING INFORMATION

Part Number	TOF - SV
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Optical head, controller and software are included.



The TOF-SV filter can be mounted in three different ways. There are 8-32 and 1/4" -20 threads on two faces and the front face has M3 threads for optical cage systems. An optional adapter has C-mount threads centered around the clear aperture.