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/ [Traditional Coated 400 – 699nm](#)

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442nm CWL, 50mm

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1

€364⁹⁵

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Volume Pricing

Qty 1+ €364,95 each

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Product Downloads

- STEP:step
- Curve:pdf
- PDF Drawing:pdf
- IGES:igs
- eDrawing:eprt
- EO Spec Sheet
- [Download All](#)

General

Type: Bandpass Filter

Typical Applications: HeCd Laser Line

Physical & Mechanical Properties

Diameter (mm): 50.00 +0.0/-0.2

Clear Aperture CA (mm): 42.0

Construction: Mounted in Black Anodized Ring

Optical Properties

Angle of Incidence (°): 0

Optical Density OD (Average): ≥3.0

Center Wavelength CWL (nm): 442.00 ±2

Center Wavelength CWL Tolerance (nm): ±2

Full Width-Half Max FWHM (nm): 10.00 ±2

Full Width-Half Max FWHM Tolerance (nm): ±2

Minimum Transmission (%): ≥40

Coating: Traditional Coated

Surface Quality: 80-50

Blocking Wavelength Range (nm): 200 - 1200

Threading & Mounting

Mount Thickness (mm): 7.5 ±0.1

Environmental & Durability Factors

Operating Temperature: -50 to +75

(°C):

Regulatory Compliance

RoHS 2015: **Compliant**

Reach 242: **Compliant**

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Need different specs or modifications?

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

Product Details

- Available in UV, Visible, and IR Center Wavelengths
- 10 – 80nm Bandwidths Available
- Ideal for Biomedical Applications and Instrumentation Integration
- **193-399nm**, 400-699nm, and **700-1650nm** CWL Options Available

Traditional Coated 400 – 699nm Bandpass Interference Filters are used to selectively transmit a narrow range of wavelengths while blocking all others. These filters are ideal for a range of biomedical and quantitative chemical applications. Bandpass interference filters are widely used in instrumentation for various applications, including clinical chemistry, environmental testing, colorimetry, elemental and laser line separation, flame photometry, fluorescence, and immunoassays. In addition, Traditional Coated 400 – 699nm Bandpass Interference Filters are used to select discrete spectral lines from arc or gas discharge lamps and to isolate a particular line from Ar, Kr, Nd: YAG, and other lasers. Traditional Coated 400 – 699nm Bandpass Interference Filters are often used in conjunction with [laser diode modules](#) and [LEDs](#).

Traditional Coated Filters

Traditional coated filters are fabricated in three sections, one of which determines the center wavelength (CWL), bandwidth (FWHM), and the shape of the transmittance curve while the other two control the blocking range of the filter. The bandpass section of Traditional Coated Bandpass Interference Filters is made by repetitive vacuum deposition of thin layers of partially reflecting dielectric compounds on a glass substrate. Rejection of wavelengths resulting from destructive interference is limited to within 15% of the central wavelength, therefore, additional glass or metallic blockers must be added to reduce out-of-band transmittance. Metallic blockers, such as layers of silver, reflect and absorb radiation outside of the filter passband and negate higher order passbands from X-ray to the long-wave infrared (LWIR). The blocking capabilities of metallic blockers are augmented by the addition of color transmitting glass and custom dyes that absorb UV or long wavelength radiation. After thin film deposition is complete, the three sections are scribed, laminated, cut, and mounted.

Technical Information

Frequently Purchased Together



#65-684 – 442nm CWL, 25mm Dia., 10nm FWHM, Interference Filter
€137,95

Qty



#65-700 – 532nm CWL, 10nm FWHM, 25mm Mounted Diameter
€195,00

Qty



#65-710 – 620nm CWL, 10nm FWHM, 25mm Mounted Diameter
€137,95





















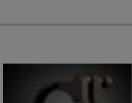

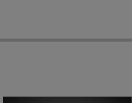








Qty











#65-712 – 636nm CWL, 10nm FWHM, 25mm Mounted Diameter
€195,00

Qty

Compatible Mounts

	Title					Buy
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MORE+		50.0mm Optic Dia., Optic Mount				2 In Stock <input type="text" value="1"/> 
MORE+		50.0mm Optic Dia., Optic Mount	Fixed	#64-568	€49,25 Request Quote	8 In Stock <input type="text" value="1"/> 
MORE+		9.5 - 73.0mm Optic Dia., Three-Screw Adjustable Ring Mount	Fixed	#36-605	€83,00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+		50.0/50.8mm Optic Dia., E-Series Kinematic Mount	Adjustable - Tip-Tilt	#15-867	€96,00 Request Quote	5 In Stock <input type="text" value="1"/> 
MORE+		10.0 - 60.0mm Optic Height, Metric Bar-Type Optic Holder	Fixed	#55-530	€108,00 Request Quote	CONTACT US <input type="text" value="1"/> 
MORE+		19.5 - 108.0mm Optic Dia., Three-Screw Adjustable Ring Mount	Fixed	#03-670	€114,00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+		7.0 - 67.0 Optic Height, English Bar-Type Optic Holder	Fixed	#03-669	€116,00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+		50.0/50.8mm Optic Dia., Optical Cell Assembly	Fixed	#36-465 CLEARANCE	€119,95 Request Quote	2 In Stock <input type="text" value="1"/> 
MORE+		8.0 - 118.0 Optic Height, English Bar-Type Optic Holder	Fixed	#03-666	€120,00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+		50.0/50.8mm Optic Dia., Kinematic Mount, 2-Screws	Adjustable - Tip-Tilt	#58-852	€135,00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+		50.0/50.8mm Optic Dia., Kinematic Mount, 3-Screws	Adjustable - Tip-Tilt	#58-855	€157,00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+		50.0/50.8mm Optic Dia., Stainless Steel Kinematic Mount, 2-Screws	Adjustable - Tip-Tilt	#26-816	€246,00 Request Quote	12 In Stock <input type="text" value="1"/> 
MORE+		50.0/50.8mm Optic Dia., Stainless Steel Kinematic Mount, 3-Screws	Adjustable - Tip-Tilt	#26-819	€268,00 Request Quote	CONTACT US <input type="text" value="1"/> 
MORE+		50.0/50.8mm Optic Dia., X-Y Translating Optic Mount	Adjustable - Linear (XY)	#62-957	€308,00 Request Quote	3 In Stock <input type="text" value="1"/> 
MORE+		50.0/50.8mm Optic Dia., Kinematic Mirror Mount	Adjustable - Tip-Tilt	#55-005	€361,00 Request Quote	6 In Stock <input type="text" value="1"/> 
MORE+		50.0/50.8mm Optic Dia., Kinematic Mirror Mount with Micrometer	Adjustable - Tip-Tilt	#56-326	€387,00 Request Quote	CONTACT US <input type="text" value="1"/> 

	Title	Type	Compare	Stock Number	Price	Buy
MORE+ 	5.0 - 100.0mm Optic Dia., 5-Axis Centering J Clamp				€410,00	CONTACT US 1 
MORE+ 	50.0/50.8mm Optic Dia., Precision G Mount					7 In Stock 1 
MORE+ 	50.0/50.8mm Optic Dia., X-Y-Z Translating Optic Mount	Adjustable - Linear (XYZ)		#62-960	€605,00 Request Quote	20+ In Stock 1 
MORE+ 	50.0/50.8mm Optic Dia., 5 Axes Optical Mount	Adjustable - Linear (XYZ) & Tip-Tilt		#13-778	€840,00 Request Quote	10 In Stock 1 

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APPLICATION NOTE

The Importance of Optical Filter Orientation...

APPLICATION NOTE

Custom Bandpass Filter using Shortpass an...

VIDEO

Optical Filters Review

VIDEO

Optical Filter Coatings: Comparison of Traditional a...

PUBLISHED ARTICLE

Selecting Color Filter Glass for Life Science Applications

FAQ

What type of material should I look for in a filter?

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