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450nm CWL, 50mm Dia., 80nm FWHM, Interference Filter

Stock **#87-007** **1 In Stock**

Additional Bandwidths

- 1 + **£416.00**

ADD TO CART

Volume Pricing	
Qty 1-9	**£416.00** each
Qty 10-25	**£370.40** each
Qty 26-49	**£352.00** each
Need More?	Request Quote

Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Type:

Bandpass Filter

Typical Applications:

DAPI Emission

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):
450.00 ±15

Center Wavelength CWL Tolerance (nm):
±15

Full Width-Half Max FWHM (nm):
80.00 ±25

Full Width-Half Max FWHM Tolerance (nm):
±25

Minimum Transmission (%):
≥60

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 (°C):
-50 to +75

Regulatory Compliance

RoHS 2015:
Compliant

Certificate of Conformance:
View

Reach 247:
Compliant

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

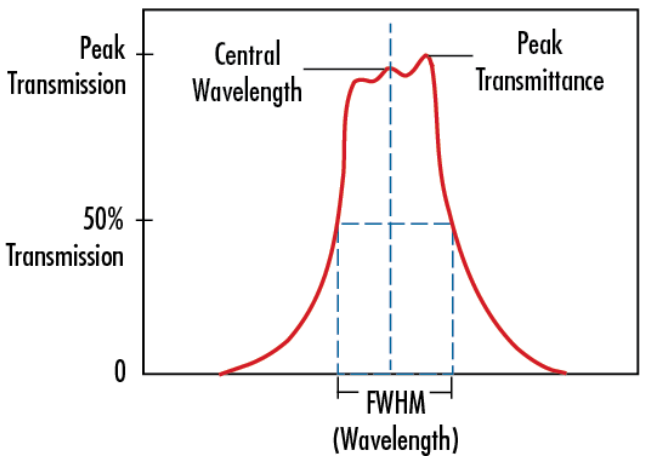
- Available in UV, Visible, and IR Center Wavelengths
- 10 – 80nm Bandwidths Available
- Ideal for Biomedical Applications and Instrumentation Integration
- 193-399nm, 400-699nm, and 700-1650nm CWL Options Available

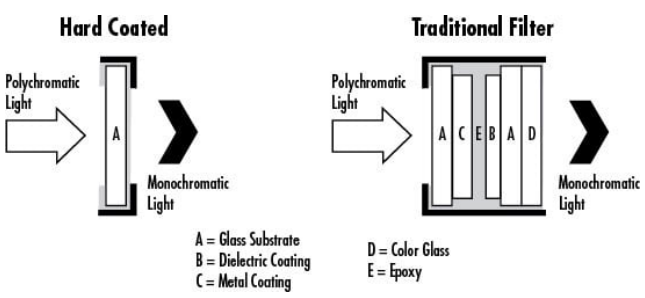
Traditional Coated 400 – 699nm Bandpass Interference Filters are used to selectively transmit a narrow range of wavelengths while blocking all others. These filters are ideal for a range of biomedical and quantitative chemical applications. Bandpass interference filters are widely used in instrumentation 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.

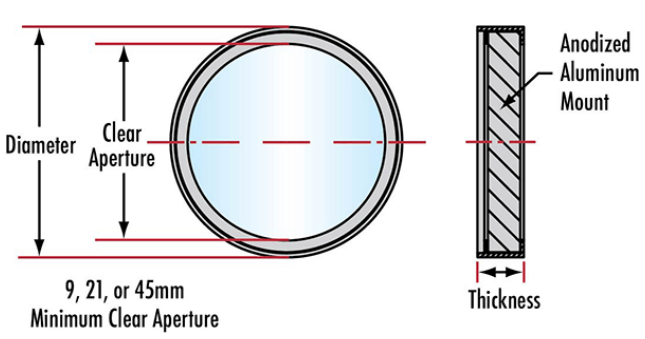
Traditional Coated Filters

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







Compatible Mounts

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