

# Optical filters for light sources

## Heat transmitting dichroic filters

- Heat protecting filters
- Three UV spectral ranges available
- Used at 45° angle of incidence

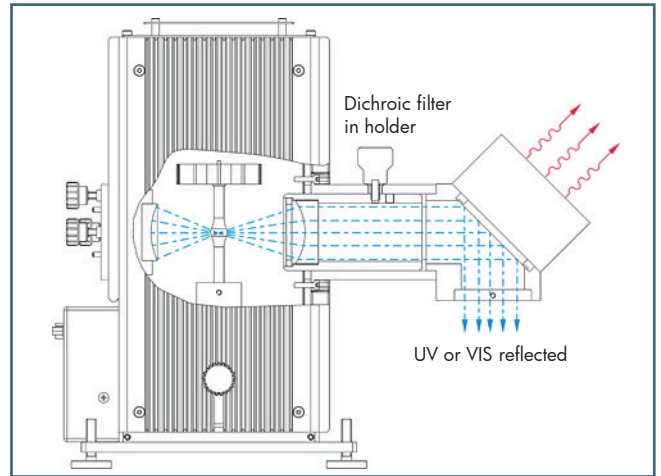
Dichroic filters are designed for high reflectance and polarization insensitivity over a limited spectral range. They are typically used at 45° to the radiation source. In this configuration, the infrared is transmitted undeviated, while the UV and VIS is reflected at 90°. We offer a special filter holder to place the filter under 45° in the collimated output beam of our light sources. The filter holder turns the beam by 90° and can be rotated 360° about the optical axis. Use these filters to shape the output of a broadband source or to block the heat (IR).

We offer three UV reflecting filters and one VIS reflecting filter (cold mirror).

The UV dichroic filters are used primarily to efficiently reflect a defined range of UV wavelengths to match your application, e.g. photolithography, UV curing, photobiology, etc. They have high transmittance outside of their specified reflecting wavelength range. The spectral ranges are shown on the right.

The cold mirror transmits the IR. For many sources this is better than reflecting the IR back towards the source.

The dichroic filters have a rectangular shape which is large enough for a 35 or 50 mm diameter beam incident at 45°.



### Ordering information

The holder and filters are sold separately allowing to interchange the filters.  
The filter size for 35 mm condensers is 41 x 60 mm<sup>2</sup>, for 50 mm condensers it is 56 x 76 mm<sup>2</sup>.

Filter type	Reflectance range	Average reflectance [%]	Curve (see figure)	For condenser size	
				35 mm	50 mm
UV long pass	260 - 320 nm	95	1	<b>LSZ171</b>	<b>LSZ271</b>
	280 - 400 nm	95	2	<b>LSZ172</b>	<b>LSZ272</b>
	350 - 450 nm	95	3	<b>LSZ173</b>	<b>LSZ273</b>
Cold mirror	420 - 680 nm	90	4	<b>LSZ174</b>	<b>LSZ274</b>

#### Filter holders

<b>LSZ115</b>	Filter holder for 35 mm condenser
<b>LSZ215</b>	Filter holder for 50 mm condenser

