

# Custom Filters



Call us for OEM versions

In terms of the spectral characteristics there are three basic types of filters: 1) Band pass filters (BP) that transmit light only around a certain center wavelength. 2) Long pass filters (LP) that transmit light with wavelengths longer than a certain cut-on wavelength. 3) Short pass filters (SP) that transmit light with wavelengths shorter than a certain cut-off wavelength.

Concerning the physical principle there are two basic types of filters: 1) Absorption filters which suppress the undesired part of the spectral energy by transforming it into heat in the bulk of the filter material. 2) Reflection filters which reflect the undesired part of the spectral energy back from the filter surface by interference (interference filters). The latter is realized by deposition of multiple thin layers of material

with certain thicknesses and refractive indices in several steps onto a glass substrate. The effective thickness of the thin layers and therefore the spectral characteristic of the filter depends on the angle of incidence of light.

By designing a specific thin film layer system, nearly any desired transmission characteristic can be achieved. By combining both principles, i.e. using an absorptive glass as substrate for the multiple thin layers, special spectral characteristics can be achieved.

For OEM volumes, we offer the design and manufacture of an appropriate filter per special requested transmission characteristic. Please use the parameters listed below to specify your requirements.

## Key Features

- Custom special transmission characteristic
- Available in mounts with all common thread sizes
- Absence of vignetting due to large clear aperture

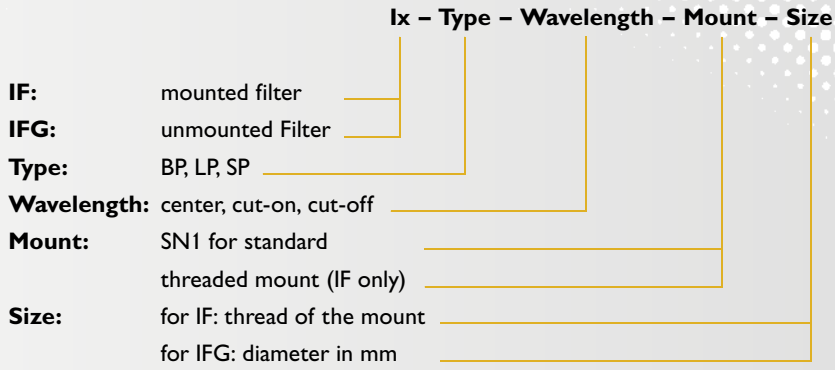
## Applications

- Machine Vision and other imaging applications
- Bio analytics
- Scientific & research measurements

### Parameter for quote requests:

Filter Type:	BP Band pass	LP Long pass	SP Short pass
Wavelength:	Center wavelength	Cut-on wavelength	Cut-off wavelength
Transmittance range:	Bandwidth	max wavelength	min wavelength
Blocking range:	min/max	min wavelength	max wavelength
Transmission in pass range:	percent	percent	percent
Rejection in blocking range:	short/long side	short side	long side
Angle of incidence			

**ORDER INSTRUCTIONS:**



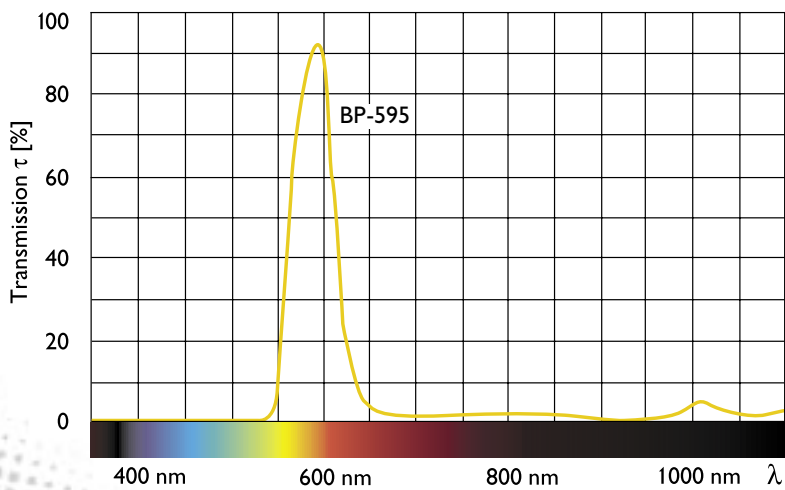
**Examples:**

IF – BP – 595 – SH – 58

(band pass filter for 595 nm in SH mount for M58x0.75)

IFG – SP – 690 – 30

(unmounted short pass filter with cut-off at 690 nm, 30 mm diameter)



# CUSTOM FILTERS