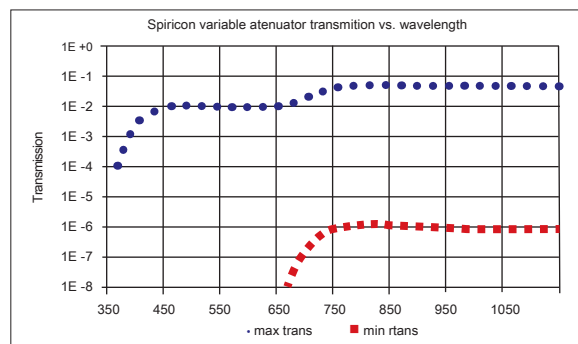
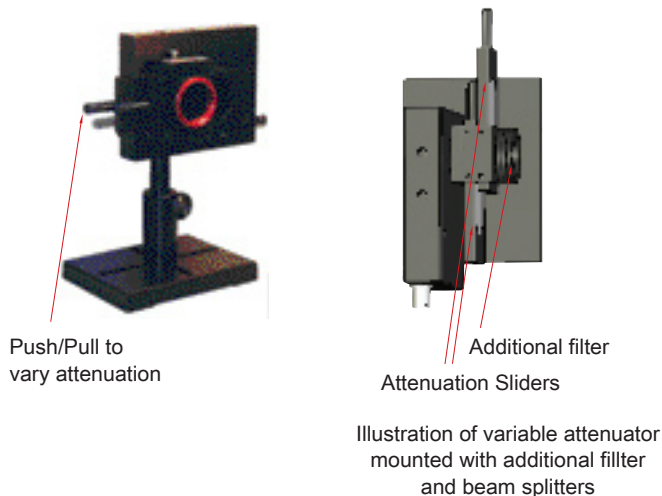


## Variable Neutral Density Attenuators/Filters

### Continuously Variable Attenuator

For maximum ease of use there is the continuously variable attenuator that can vary its attenuation over a very wide range just by pushing and pulling the filters laterally. The attenuator consists of two opposite wedges of ND glass. The surfaces are arranged so that no parallel surfaces face each other so as to eliminate interference effects.

The variable attenuator uses the same C mount thread as the other components so it can be combined with additional stackable filters and beam splitters if necessary as shown.



Item	Variable attenuator
Nominal OD (vis)	1 – 6 continuously variable
Aperture	Ø20mm
Optical quality	2 waves in visible
Damage threshold	50W/cm <sup>2</sup> , 1J/cm <sup>2</sup> for ns pulses

Ordering Information		
Item	Description	P/N
LBF-50 filter set	Compact screw in filter holder with set of ND filters. Attenuations from low to 10 <sup>6</sup>	SP90081
ND1 stackable filter (red housing)	4mm spacing screw on filter for camera with transmission of between 20% and 5% depending on spectral range. Can be stacked and combined with other filters and beam splitters. One filter is included with Spiricon cameras	SPZ08234
ND2 stackable filter (black housing)	4mm spacing screw on filter for camera with transmission of between 7% and 0.5% depending on spectral range. Can be stacked and combined with other filters and beam splitters. Two filters are included with Spiricon cameras	SPZ08235
ND3 stackable filter (green housing)	4mm spacing screw on filter for camera with transmission of between 2% and 0.05% depending on spectral range. Can be stacked and combined with other filters and beam splitters	SPZ08253
Variable filter	Continuously variable filter for complete control over beam intensity. Especially useful for pulsed lasers. Varies the intensity over more than 4 orders of magnitude between wavelengths 350nm and 1100nm. Can be stacked and combined with other filters and beam splitters	SPZ17012
Filter holder and 50x50 filter set	Filter holder with set of 4 standard Schott 50X50mm neutral density filters. Useful to reduce intensity before inputting into 4X beam reducer. Mounts to standard ¼" thread, ½" diameter laboratory rod	SPZ08240
Filter for 355nm-V2; give an undistorted image of the 355nm light.	Silicon cameras can see the 355nm 3rd harmonic radiation of YAG. The YAG however usually emits some light at 532nm and 1064nm as well. This filter filters out the other 2 wavelengths to give undistorted image of the 355nm light	SPZ08246
Filter for 1300nm	For all cameras that can operate at 1300nm but are quite insensitive there. This filter filters out all light below 1200nm to allow viewing 1300nm radiation without background interference	SPZ08242
4mm spacer	Blank stackable spacer / filter holder where 4mm spacing is needed but no attenuation is needed	SPG01698
5mm spacer	Spacer ring for adapting 12.5mm recess CS cameras to 17.5mm recess C mount lenses	SPG02106
8mm spacer	Spacer ring for adapting 4.5mm recess cameras to work with 12.5mm recess CS mount lenses	SPG02067