

## VARIABLE ATTENUATOR FOR FEMTOSECOND LASER PULSES 990-0073

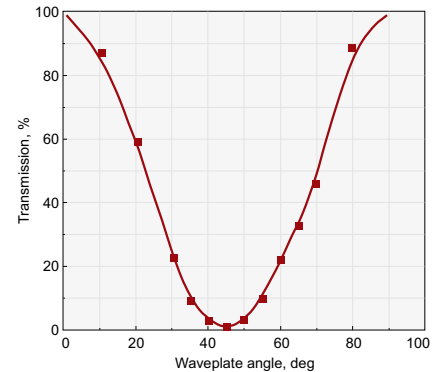
### Features

- Divides laser beam into two beams of manually adjustable intensity ratio separated by 68° angle
- Large dynamic range
- Transmitted beam shift ~1.4 mm
- High optical damage threshold



This variable attenuator/beamsplitter consists of Polarizer Holder 840-0180-A2 and Kinematic Mirror/Beamsplitter Mount 840-0056-13. UVFS Thin Film Brewster type polarizer Ø76.2 mm, which reflect s-polarized light while transmitting p-polarized light, is housed into Beamsplitter Mount 840-0056-13. A quartz Zero Order (optically contacted) Half Waveplate Ø40 mm or Zero Order Air-Spaced Half Waveplate Ø40 mm is housed in rotating polarizer holder 840-0180-A2 and placed in the incident linearly polarized laser beam. The intensity ratio of those two separated and different polarized beams may be continuously varied without alteration of other beam parameters by rotating the waveplate. The intensity of either exit beam, or their intensity ratio, can be controlled over a wide dynamic range. P-polarization could be selected for maximum transmission, or high-purity s-polarization could be reflected when maximum attenuation of the transmitted beam takes place.

The holder 840-0056-13 allows to adjust Angle Of Incidence of the Thin Film Brewster type polarizers by  $\pm 4.5^\circ$  and to get the maximum extinction contrast. The mounts are on rods, rod holders and Movable Base 820-0090. The optical axis height from the table top can be adjusted in the range 92-98 mm. Other height can be offered as custom changing the standard rods and rod holders into higher.



### Specifications

Clear Aperture diameter	36 mm
Damage threshold	>10 mJ/cm <sup>2</sup> , 50 fs pulse at 800 nm, typical
for high power applications	>100 mJ/cm <sup>2</sup> , 50 fs pulse at 800 nm, typical
Polarization Contrast	>1:200
Transmitted beam shift	~ 1.4 mm
Weight	0.6 kg

Wavelength, nm	Catalogue number	Price, EUR
266	990-0073-266	1720
343	990-0073-343	1590
400	990-0073-400	1570
515	990-0073-515	1570
800	990-0073-800	1590
780-820	990-0073-800B	1820
1030	990-0073-1030	1645
1010-1050	990-0073-1030B	1880

A quartz Zero Order (optically contacted) Half Waveplate Ø40 mm is housed in rotating holder 840-0180-A2.

### For High Power Laser Applications

Wavelength, nm	Catalogue number	Price, EUR
266	990-0073-266H	1820
343	990-0073-343H	1690
400	990-0073-400H	1670
515	990-0073-515H	1670
800	990-0073-800H	1690
780-820	990-0073-800HB	1920
1030	990-0073-1030H	1745
1010-1050	990-0073-1030HB	1980

A quartz Zero Order Air-Spaced Half Waveplate Ø40 mm is housed in rotating holder 840-0180-A2.

