

VARIABLE ATTENUATOR FOR FEMTOSECOND LASER PULSES 990-0072

new

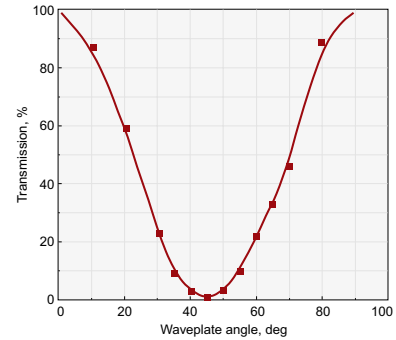


- Divides laser beam into two parallel beams of manually adjustable intensity ratio
- Large dynamic range
- Transmitted beam shift ~1 mm
- High optical damage threshold

This variable attenuator/beamsplitter consists of Polarizer Holder 840-0180-A1 and Kinematic Mirror/Beamsplitter Mount 840-0056-12. UVFS Thin Film Brewster type polarizer diameter 50.8 mm, which reflect s-polarized light while transmitting p-polarized light, is housed into Beamsplitter Mount 840-0056-12. A quartz Zero Order (optically contacted) Half Waveplate diameter 25.4 mm (for femtosecond applications) or Zero Order Air-Spaced Half Waveplate (for high power applications) is housed in rotating polarizer holder 840-0180-A1 and placed in the incident linearly polarized laser beam.

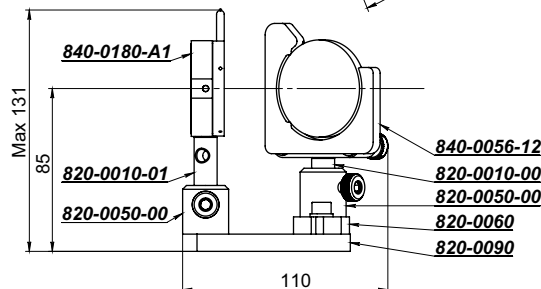
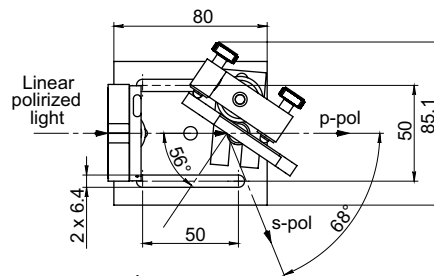
The intensity ratio of those two separated and different polarized beams may be continuously varied without alteration of other beam parameters by rotating the waveplate. The intensity of either exit beam, or their intensity ratio, can be controlled over a wide dynamic range. P-polarization could be selected for maximum transmission, or high-purity s-polarization could be reflected when maximum attenuation of the transmitted beam takes place.

The holder 840-0056-12 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 78-88mm. Other height can be offered as custom changing the standard rods and rod holders into higher.



SPECIFICATIONS

Clear Aperture diameter	22 mm
Damage threshold	>10 mJ/cm ² , 50 fs pulse at 800 nm, typical
for high power applications	>100 mJ/cm ² , 50 fs pulse at 800 nm, typical
Polarization Contrast	>1:200
Transmitted beam shift	~ 1 mm
Weight	0.45 kg



Catalogue number	Wavelength, nm	Price, EUR
990-0072-266	266	950
990-0072-343	343	895
990-0072-400	400	865
990-0072-515	515	865
990-0072-800	800	880
990-0072-800B	780-820	980
990-0072-1030	1030	890
990-0072-1030B	1010-1050	980

A quartz Zero Order (optically contacted) Half Waveplate $\varnothing 25.4$ mm is housed in rotating holder 840-0180-A2.

For High Power Laser Applications

Catalogue number	Wavelength, nm	Price, EUR
990-0072-266H	266	1085
990-0072-343H	343	1030
990-0072-400H	400	1000
990-0072-515H	515	1000
990-0072-800H	800	1015
990-0072-800HB	780-820	1115
990-0072-1030H	1030	1025
990-0072-1030HB	1010-1050	1115

A quartz Zero Order Air-Spaced Half Waveplate clear aperture $\varnothing 22$ mm is housed in rotating holder 840-0180-A2.