

VARIABLE ATTENUATOR FOR FEMTOSECOND LINEARLY POLARIZED LASER BEAM 990-0071

Features

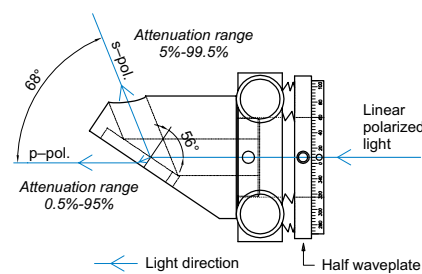
- Divides laser beam into two beams of manually adjustable intensity ratio separated by 68° angle
- Large dynamic range
- Transmitted beam shift ~0.5 mm
- High Optical damage threshold
- Weight – 0.25 kg



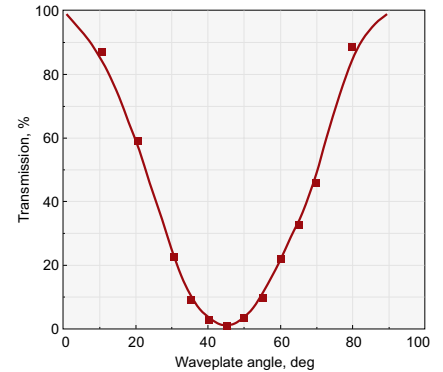
Note: Solid Base Height Extender **820-0210** and Standard Rod **820-0020-20** should be ordered separately

This variable attenuator/beamsplitter consists of special design opto-mechanical adapter for polarizer at 56° 840-0117A or 840-0118A and precision opto-mechanical holder 840-0197. Thin Film Brewster type polarizer, which reflect s-polarized light at 56° while transmitting p-polarized light, is housed into adapter for polarizer at 56°. Quartz Half Waveplates are housed in rotating holder 840-0197.

The intensity ratio of those two 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 840-0197 allows to adjust Angle Of Incidence of the Thin Film Brewster type polarizer by $\pm 2^\circ$ and to get the maximum polarization contrast.



Specifications

Aperture diameter	10 mm
Damage threshold	>10 mJ/cm ² , 50 fs pulse at 800 nm, typical
for high power laser applications	>100 mJ/cm ² , 50 fs pulse, 800 nm typical
Time dispersion	t < 4 fs for 100 fs Ti:Sapphire laser pulses
Polarization Contrast	> 1:200

For High Power Laser Applications

Wavelength, nm	Catalogue number	Price, EUR
257	990-0071-257	655
266	990-0071-266	655
343	990-0071-343	630
400	990-0071-400	580
390-410	990-0071-400B	680
515	990-0071-515	580
505-525	990-0071-515B	680
800	990-0071-800	580
780-820	990-0071-800B	680
1030	990-0071-1030	580
1010-1050	990-0071-1030B	680

Wavelength, nm	Catalogue number	Price, EUR
257	990-0071-257H	720
266	990-0071-266H	720
343	990-0071-343H	695
400	990-0071-400H	645
390-410	990-0071-400HB	745
515	990-0071-515H	645
505-525	990-0071-515HB	745
800	990-0071-800H	645
780-820	990-0071-800HB	745
1030	990-0071-1030H	645
1010-1050	990-0071-1030HB	745

Zero order optically contacted half waveplate is housed in rotating holder 840-0197 (laser damage threshold: >10 mJ/cm², 50 fs pulse at 800 nm, typical).

Zero Order Air-Spaced half waveplate is housed in rotating holder 840-0197 (laser damage threshold: >100 mJ/cm², 50 fs pulse at 800 nm, typical).

Related Products

Neutral Density Filters

See page 1.15

FemtoLine Zero Order Optically Contacted / Air-Spaced Plates

See page 4.25

FemtoLine Thin Film Laser Polarizers

See page 4.22

Motorized Variable Attenuator for Linearly Polarized Laser Beam 990-0071M

See page 5.13

