

**VARIABLE ATTENUATOR FOR FEMTOSECOND LASER PULSES 990-0073**

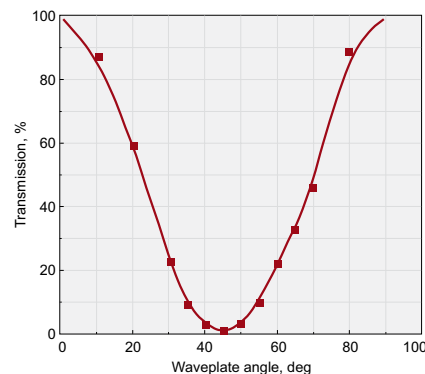
### Features

- 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            | <a href="#">990-0073-266</a>   | 1720       |
| 343            | <a href="#">990-0073-343</a>   | 1590       |
| 400            | <a href="#">990-0073-400</a>   | 1570       |
| 515            | <a href="#">990-0073-515</a>   | 1570       |
| 800            | <a href="#">990-0073-800</a>   | 1590       |
| 780-820        | <a href="#">990-0073-800B</a>  | 1820       |
| 1030           | <a href="#">990-0073-1030</a>  | 1645       |
| 1010-1050      | <a href="#">990-0073-1030B</a> | 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            | <a href="#">990-0073-266H</a>   | 1820       |
| 343            | <a href="#">990-0073-343H</a>   | 1690       |
| 400            | <a href="#">990-0073-400H</a>   | 1670       |
| 515            | <a href="#">990-0073-515H</a>   | 1670       |
| 800            | <a href="#">990-0073-800H</a>   | 1690       |
| 780-820        | <a href="#">990-0073-800HB</a>  | 1920       |
| 1030           | <a href="#">990-0073-1030H</a>  | 1745       |
| 1010-1050      | <a href="#">990-0073-1030HB</a> | 1980       |

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

