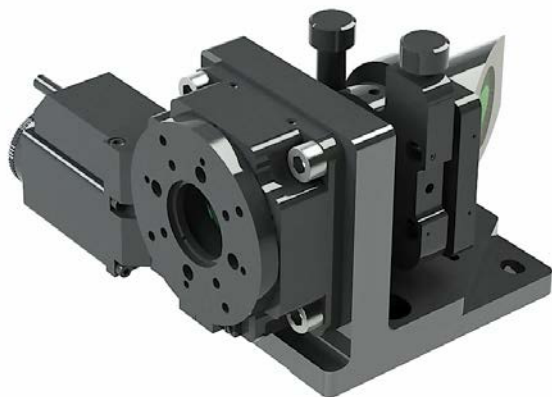


## MOTORIZED VARIABLE ATTENUATOR FOR LINEARLY POLARIZED LASER BEAM – 990-0071M



This motorized variable attenuator/beamsplitter consists of special design opto-mechanical adapter for polarizer at  $56^\circ$  840-0117A or 840-0118A and precision opto-mechanical holder 840-0193. Thin Film Brewster type polarizer, which reflect s-polarized light at  $56^\circ$  while transmitting p-polarized light, is housed into adapter for polarizer at  $56^\circ$ . Quartz Half Waveplates are housed in motorized rotation stage 960-0161.

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 840-0193 allows to adjust Angle of Incidence of the Thin Film Brewster type polarizer by  $\pm 2^\circ$  and to get the maximum polarization contrast.

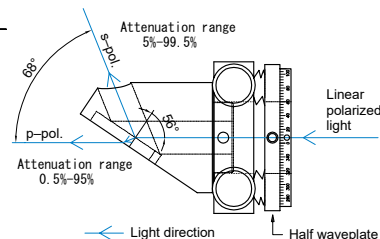
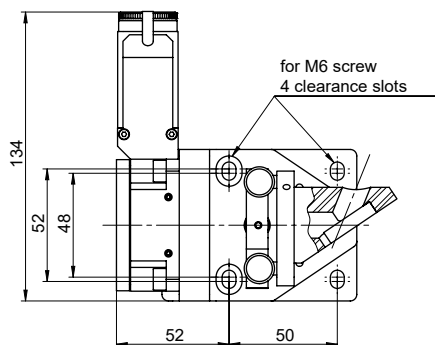
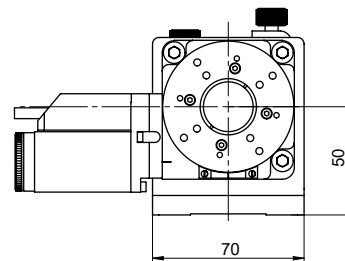
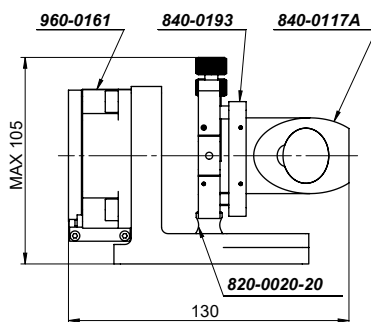
### Ordering information

**Please note:** these motorized variable attenuators for linearly polarized laser beam are provided without controller and power supply.

Example:

**990-0071-266M** – motorized attenuator without controller and power supply.

**990-0071-266M+CP** – motorized attenuator with controller and power supply.



### For Nd:YAG Laser Applications

| Wavelength, nm | Catalogue number |
|----------------|------------------|
| 266            | 990-0071-266HM * |
| 355            | 990-0071-355M    |
| 532            | 990-0071-532M    |
| 1064           | 990-0071-1064M   |

Multi order half waveplate is housed in Motorized Rotation Stage 960-0161 and Polarizer with adapter in Kinematic Optical Mount 840-0193 for Nd:YAG laser application (laser damage threshold:  $5 \text{ J/cm}^2$ , 10 ns pulses, 10 Hz at 1064 nm, typical).

\* With Zero Order Air-Spaced half waveplate.

### For Femtosecond Applications

| Wavelength, nm | Catalogue number |
|----------------|------------------|
| 266            | 990-0071-266M    |
| 343            | 990-0071-343M    |
| 400            | 990-0071-400M    |
| 390 – 410      | 990-0071-400BM   |
| 515            | 990-0071-515M    |
| 505 – 525      | 990-0071-515BM   |
| 800            | 990-0071-800M    |
| 780 – 820      | 990-0071-800BM   |
| 1030           | 990-0071-1030M   |
| 1010 – 1050    | 990-0071-1030BM  |

Zero order optically contacted half waveplate is housed in Motorized Rotation Stage 960-0161 and Polarizer with adapter in Kinematic Optical Mount 840-0193 for femtosecond laser application (laser damage threshold:  $>10 \text{ mJ/cm}^2$ , 50 fsec pulse, 800 nm typical).

### For High Power Femtosecond Laser Applications

| Wavelength, nm | Catalogue number |
|----------------|------------------|
| 266            | 990-0071-266HM   |
| 343            | 990-0071-343HM   |
| 400            | 990-0071-400HM   |
| 390 – 410      | 990-0071-400HBM  |
| 515            | 990-0071-515HM   |
| 505 – 525      | 990-0071-515HBM  |
| 800            | 990-0071-800HM   |
| 780 – 820      | 990-0071-800HBM  |
| 1030           | 990-0071-1030HM  |
| 1010 – 1050    | 990-0071-1030HBM |

Zero Order Air-Spaced half waveplate is housed in Motorized Rotation Stage 960-0161 and Polarizer with adapter in Kinematic Optical Mount 840-0193 for high power femtosecond laser application (laser damage threshold:  $>100 \text{ mJ/cm}^2$ , 50 fsec pulse, 800 nm typical).