ATP-K Variable Attenuator

This option makes beam profiling easy. The ATP-K attenuates your laser without ghost reflections ,fringes and light leaks. A knob-operated variable wedges attenuation of ND 1.7-4.6 with fixed gray-glass attenuator with ND 2.8, provides total attenuation capability of ND 7.4.

The ATP-K is also designed to be used with the HP-series, high power attenuators and beam splitters. Both types of attenuators attach directly to the ATP-K via C-mount while a Beam profiler camera is attached from the opposite side.

The ATP-K has simple reproducible attenuation settings, and has a wavelength range of 360 to 2500+ nm.

Figure 1 on the right shows the safe average power for negligible beam distortion from thermal lensing. Absorptive filters, such as used in the ATP-K have an upper power limit of approximately 100mW per mm beam diameter.

For pulsed beams, Figure 2 shows the damage threshold for energy where breakage of the glass wedge may occur. This is approximately 5J per mm beam diameter. For lasers with power or energy levels above this the first stage of attenuation will need to come from our line of high power reflective attenuators.

ATP-K

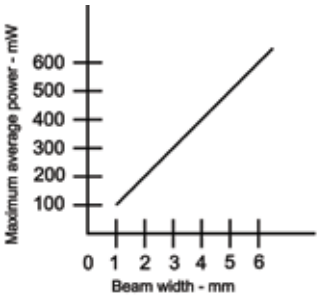

Figure 1 – Safe average power for negligible beam distortion

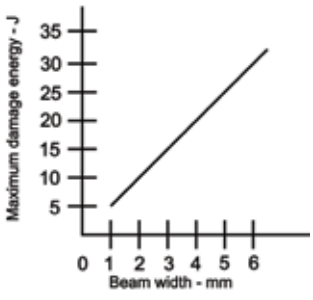

Figure 2 – Point at which damage will occur with pulsed energy

Specifications

Model	ATP-K
Maximum Power/Energy Handling (1)	100 mW/mm, 100 mJ total avg. Energy Damage threshold: 5J
Wavelength Range	360-2500+ nm Near flat response out to 1500nm
Attenuation Range (2)	Variable filters: ND = 1.7 to 4.6 Maximum ND 7.4 (with fixed 2.8 gray-glass attenuator)
Clear Aperture	15mm diameter
Dimensions	94 (W) x 28 (H) x 43 (D) mm
Thickness Tolerance	±0.25mm
Mounting	C-mount
Base Mount	¼-20
Part number	**PH00128**

Notes: (1) Powerful laser sources may require additional attenuation prior to the beam's exposure to Model ATP-K. Additional attenuation usually is achieved by use of high-power laser mirror attenuators or clean, highquality quartz plates (recommended with slight wedge angles).
(2) ND (optical density) = log (1/T) or T=10^(-ND) where T is the fraction of light transmitted. For example, an ND of 5 transmits 0.00001 or 0.001%.

ATP-K