Advanced motorized laser power attenuators LPA-A

Advanced laser power attenuator LPA-A is a compact motorized device for laser power control with an integrated controller and absolute encoder. The LPA-A is produced in the UV, visible and NIR spectral ranges, from 250 nm to 2000 nm.
This device is combined with the unique mechanical design which ensures repeatability and high stability of performance.

All optical components of the LPA-A are made for high LIDT and provide a stable and reliable performance even when using them with high power lasers in industrial applications.
A secondary laser beam from the laser power attenuator unit can be rejected to an external beam dump. The beam dump is used for avoiding any thermal effects or stress in the housing of the LPA-A device.

Main features

- Integrated controller
- Absolute encoder - no homing required
- High accuracy - ±0,004 deg (less than ± 0,01 % of laser power)
- Resolution - 0,002 deg, 7,4 arcsec, 0,035 mrad
- Fast adjustment - less than 0,2 sec (min to max)
- High damage threshold: up to 10J/cm² (10 ns @ 1064 nm)
- Adjustable polarizer angle

Application examples

- Precise laser micromachining
- Laser power stabilization
- Research

Standard specifications

ADVANCED VARIABLE MOTORIZED LASER POWER ATTENUATOR SPECIFICATIONS	
Input and output clear aperture	15 mm
Controller	Integrated
Dimensions (H x W x L)	86 x 47 x 58 mm
Control interface	USB or RS232

Standard products

ATTENUATION RANGE	LIDT	WAVELENGTH
0,5 - 95 %	2 J/cm² (10 ns @ 266 nm)	257 nm
		266 nm
	5 J/cm² (10 ns @ 532 nm)	515+1030 nm
0,2 - 96 %	3 J/cm² (10 ns @ 355nm)	343 nm
		355 nm
0,1 - 98 %	5 J/cm² (10 ns @ 532 nm)	515 nm
		532 nm
	10 J/cm² (10 ns @ 1064 nm)	1030 nm
		1064 nm

Accessories for laser power attenuators LPA-A

MOUNTING OPTION	FOR BEAM HEIGHT OF
Post mounting set	76,2 - 100 mm (3" – 4")
Post mounting set	57 - 65 mm (2,2" – 2,6")
Dedicated beam dump with protective window	-