

LBS-300 Beam Splitters

The LBS-300 beam splitter attachment for C-mount, CS-mount, or Ophir mount cameras allow you to measure laser beams with diameters up to 15mm and powers ranging from 10 mWatts to ~400 Watts. The beam sampler is designed so that the preferential polarization selection effect of a single wedge is cancelled out and the resulting beam image is polarization corrected to restore the polarization components of the original beam. The beam sampler operates by reflecting the incoming beam from the front surfaces of a pair of wedges through 90 degrees into the camera. Approximately 99% of the beam is transmitted through the beam sampler with 0.01% passed on to the camera. A set of adjustable ND filters are provided to make final intensity adjustments to the beam before it reaches the camera imager. As an option, you may order the WVF-300 (P/N SP90195) continuously variable ND filter set that can slide in and replace the fixed ND filters. If additional attenuation is needed, an external wedge (P/N SPZ17015) may be mounted at the input port, however this 3rd wedge will cause polarization selectivity when the beam is significantly polarized different in the S and P planes. Alternatively, two LBS-300s can be coupled in series providing up to a 10^{-8} attenuation.



Ordering Information

Model	LBS-300-UV	LBS-300-VIS	LBS-300-NIR	LBS-300-BB
Part No.	SP90183	SP90184	SP90185	SP90186
Wavelength	266-355nm	400-700nm	1064nm	190-1550nm
Wedge Material	UVFS	BK7	BK7	UVFS
Wedge Coating	A/R $\leq 1\%$	AR $\leq 1\%$	AR $\leq 1\%$	No coating, 4% reflection
Clear aperture	17.5mm	17.5mm	17.5mm	17.5mm
Reflection	0.01%	0.01%	0.01%	0.16%
Wedge ND value, each	ND ≥ 2	ND ≥ 2	ND ≥ 2	ND ~ 1.3
ND Filters	Inconel	Bulk ND	Bulk ND	One each of the UV, VIS & NIR sets
ND Values, nominal	0.3, 0.7, 1.0, 2.0, 3.0, 4.0 (Blu holders)	0.3, 0.7, 1.0, 2.0, 3.0, 4.0 (Grn holders)	0.3, 0.7, 1.0, 2.0, 3.0, 4.0 (Red holders)	See UV, VIS and NIR descriptions
Filter Slides	3	3	3	9
Maximum allowable input to filter ⁽¹⁾	100 W/cm ² CW 20mJ/cm ² , 10ns pulse	50 W/cm ² 1J/cm ² , 10ns pulse	50 W/cm ² 1J/cm ² , 10ns pulse	See adjacent specifications
Accessories				
Wedge Variable ND Filter kit	N/A	WVF-300 SP90195	WVF-300 SP90195	WVF-300 SP90195
Beam Dumps	BD-040-A, 40 Watts Max Power, Air Cooled BD-500-W, 500 Watts Max Power, Water Cooled			SP90192 SP90193
Beam Deflector Assembly	for 400-1100 nm only			SP90263
Large C-mount Wedge Splitter	For additional attenuation add this to the front end of the LBS-300. Good for 350-2000mm			SP90273
Note: (1)	ND bulk absorbing filters damage threshold is 50W/cm ² but should be used at <5W/cm ² to avoid thermal lensing effects.			