

LBS-400 Beam Splitters

The LBS-400 beam sampler attachment for various large array cameras allow you to measure UV, NIR or IR wavelength laser beams with diameters up to 1 inch (25.4mm) and powers ranging from 10mW to ~500W ⁽¹⁾. 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 each beam sampler with 0.01% passed on to the camera. A set of adjustable filters are provided to make final intensity adjustments to the beam before it reaches the camera imager.

LBS- 400



(1) For Gaussian beam diameter <1/2 the clear aperture and depending on ND filter and camera saturation limits the maximum power may be as high as 1200W.

Specifications

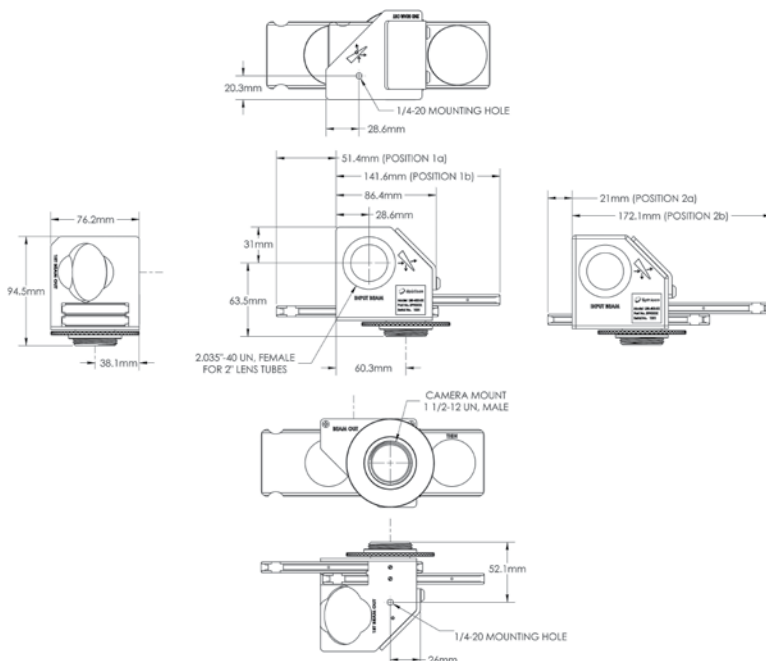
Model	LBS-400-UV	LBS-400-NIR	LBS-400-IR
Wavelengths	193-355nm	900-1800nm	10.6μm
Wedge Material	UVFS	BK7	ZnSe
Wedge Coating	A/R ≤1.5%	A/R ≤1%	A/R ≤1%
Clear Aperture	1.25 inch (31.75mm)	1.25 inch (31.75mm)	1.25 inch (31.75mm)
Reflection	0.01%	0.01%	0.01%
Wedge ND value (each)	ND ≥2	ND ≥2	ND ≥2
Filter Material	Inconel	Bulk ND	CaF2
Filter ND Values nominal	0.5, 1.0 in both filters	0.5, 1.0 in both filters	0.5, 1.0 in both filters
Adjustable Filter Slides	2	2	2
Filter Damage ⁽¹⁾	100 W/cm ² 20mJ/cm ² , 10ns pulse	50 W/cm ² 1J/cm ² , 10ns pulse	5W/cm ² 300 J/cm ² , 1ms pulse
Part number	SP90351	SP90354	SP90349

Accessories

Every LBS-400 comes with a user specified adaptor plate. Please choose at time of purchase

LBS-400 C-Mount Adapter	Adaptor plate to mount C-Mount devices to LBS-400	SP90352
LBS-400 to SM2 Adapter	Adaptor plate to mount SP504S camera to LBS-400	SP98000
LBS-400 to Pyrocam™ Adapter	Adaptor plate to mount Pyrocam IV camera to LBS-400	SP90510
LBS-400 to WB-I Adapter	Adaptor plate to mount WB-I to LBS-400	SP90572

Note: (1) ND filters should be used at 5W/cm² for beam size 5mm, 10W/cm² for 2mm beam and >30W/cm² for 1mm beam to avoid thermal lensing effects.



LBS-400 mounted to Pyrocam IV

