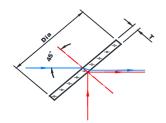
## **ZnSe Beam Combiner**

ZnSe Beam Combiner used for  $CO_2$  system alignment. Designed for used at 45 degree, they transmit the long wavelength beam and align it with the 90 degree reflected diode beam.





Specifications							
Diameter Tolerance	+0/-0.13mm						
Thickness	±0.25mm						
Surface Flatness	λ/4@632.8nm						
Surface Quality	40/20 scratch and dig						
AOI	45°						

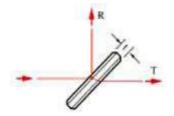
#### **BCZ Series - Beam Combiner**

Part No.	Dia (mm)	Thk (mm)	Material	Wavelength		
BCZ-0.75-3	12.7	3.0	ZnSe	10.6µmT/650nmR		
BCZ-0.75-3	19.1	3.0	ZnSe	10.6µmT/650nmR		
BCZ-20-2	20.0	2.0	ZnSe	10.6µmT/650nmR		
BCZ-2-5	50.8	2.0	ZnSe	10.6µmT/650nmR		
BCZ-1.5-3	38.1	3.0	ZnSe	1064nmT/650nmR		

NOTE: Beam Combiner of different sizes and materials are available upon request.

# ZnSe Beam Splitter 10.6/9.4µm

The common Beam Splitter is used to split or combine laser beam. However Polarization Beam Splitters are used to split or combine two perpendicular polarization laser beam. The performance of Beam splitters is mainly dependent on the coating specifications.



Specifications							
Diameter Tolerance	+0/-0.13mm						
Thickness	±0.25mm						
Surface Flatness	λ/4@632.8nm						
Surface Quality	40/20 scratch and dig						
AOI	45°						

### **BSZ Series - Beam Splitter**

Part No.	Dia (mm)	Thk (mm)	Material	Side 1 Reflectivity (%R)	Polarization	Wavelength
BSZ1.0-3-27%R-PIS	25.4	3.0	ZnSe	27%	Insensitive	10.6µm
BSZ1.0-3-50%R-P	25.4	3.0	ZnSe	50%	P-Pol	10.6µm
BSZ1.0-3-50%R-PIS	25.4	3.0	ZnSe	50%	Insensitive	10.6µm
BSZ1.0-3-50%R-S	25.4	3.0	ZnSe	50%	S-Pol	10.6µm
BSZ1.1-3-50%R-S	27.9	3.0	ZnSe	50%	S-Pol	10.6µm

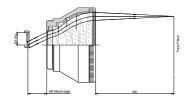


Part No.	Dia (mm)	Thk (mm)	Material	Side 1 Reflectivity (%R)	Polarization	Wavelength
BSZ1.1-3-50%R-PIS	27.9	3.0	ZnSe	ZnSe 50% Insensitive		10.6µm
BSZ1.1-3-50%R-P	27.9	3.0	ZnSe	50%	P-Pol	10.6µm
BSZ1.1-3-27%R-S	27.9	3.0	ZnSe	27%	S-Pol	10.6µm
BSZ1.5-3-27%R-S	38.1	3.0	ZnSe	27%	S-Pol	10.6µm
BSZ1.5-3-50%R-P	38.1	3.0	ZnSe	50%	P-Pol	10.6µm
BSZ1.5-3-50%R-PIS	38.1	3.0	ZnSe	50%	Insensitive	10.6µm
BSZ1.5-3-50%R-S	38.1	3.0	ZnSe	50%	S-Pol	10.6µm
BSZ1-3-50%R-9.4PIS	25.4	3.0	ZnSe	50%	Insensitive	9.4µm
BSZ1.5-3-50%R-9.4PIS	38.1	3.0	ZnSe	50%	Insensitive	9.4µm
BSZ2-3-50%R-9.4U	50.8	3.0	ZnSe	50% U-Pol		9.4µm
BSZ2-5-50%R-9.4PIS	50.8	5.0	ZnSe	50%	Insensitive	9.4µm

NOTE: Beam Splitter of different sizes and materials are available upon request.

## ZnSe/Ge Telecentric Scan Lens 10.6/9.4µm

Telecentric scanning lenses are a special configuration in which the arrangement of optics is designed to focus down the beam such that it is always perpendicular to the flat field. This is accomplished by ensuring that the system 'stop' is located at the front focal point of the lens system. The 'stop' is located at the position where the beam is deflected from the axis. In a single-axis scanning system, this location is at the scanning mirror. For two-axis scanning, the stop is mid-way between the mirrors.





TSL Series - 10.6/9.4µm

Part No.	EFL (mm)	Scan Field (mm)	*Spot size (µm)	En- trance Pupil (mm)	Max. Scan Angle (deg.)	BFL (mm)	Thread	M1-M2 Separa- tion (mm)	WD (mm)	Wavelength
TSL-10.6-50-100G	100.0	50x50	57.3	25.0	20.5	110.0	M85x1	20.0	106.1	10.6µm
TSL-9.6-70-140ZA	140.0	70x70	127.5	15.0	20.5	94.3	M85x1	20.0	92.3	9.6µm
TSL-9.4-50-75	75.0	50x50	73.2	20.0	28.0	73.4	M85x1	28.0	70.4	9.4µm
TSL-9.4-65-100	100.0	65x65	88.0	20.0	27.1	109.9	M85x1	28.0	109.2	9.4µm
TSL-9.4-70-120	120.0	70x70	104.0	20.0	24.0	112.0	M85x1	25.6	111.0	9.4µm

NOTE: Telecentric lenses of different FL are available upon request.

<sup>\*</sup> spot size for reference only