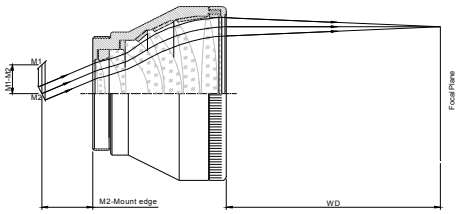
Glass Series Telecentric Scan Lens

This series of TSL is made of glass material. 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.



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-1550-20-55	55.0	20x20	14.5	10.0	7.4	54.9	M44x1	13.0	51.3	1550nm
TSL-1550-15-80	80.0	15x15	16.6	12.0	7.6	93.8	M85x1	20.0	91.9	1550nm
TSL-1550-25-80	80.0	25x25	16.5	10.0	10.2	89.9	M85x1	20.0	83.9	1550nm
TSL-1550-80-195	195.0	80x80	34.0	15.0	16.8	274.7	M85x1	30.0	271.6	1550nm
TSL-1064-18-56	56.0	18x18	7.9	10.0	13.3	62.8	M39x1	20.0	59.8	1064nm
TSL-1064-50-100	100.0	50x50	18.0	10.0	21.0	129.7	M85x1	20.0	126.1	1064nm
TSL-1064-65-115	115.0	65x65	14.5	12.0	25.0	140.0	M85x1	21.5	136.4	1064nm
TSL-1064-73-163A	163.0	73x73	18.0	15.0	18.0	217.1	M85x1	20.0	214.1	1064nm
TSL-1064-73-163B	163.0	73x73	22.8	10.0	19.0	196.4	M85x1	16.0	193.4	1064nm
TSL-1064-90-190	190.0	90x90	26.5	18.0	14.0	167.6	M85x1	20.0	166.4	1064nm
TSL-1064-126-216A	216.0	126x126	23.0	15.0	24.3	301.0	TK253	21.0	298.0	1064nm
TSL-633-30-100	100.0	30x30	9.5	10.0	12.5	105.3	M85x1	18.0	99.1	633nm
TSL-633-75-160	160.0	75x75	15.5	10.0	19.0	214.0	M85x1	13.0	212.0	633nm
TSL-532-70-100	100.0	70x70	12.0	10.0	29.2	128.5	M85x1	13.0	125.2	532nm
TSL-532-60-105W	105.0	60x60	9.5	10.0	23.5	132.1	M85x1	24.0	129.1	532nm
TSL-532-75-163A	163.0	75x75	13.2	10.0	18.9	170.2	M85x1	30.0	167.2	532nm
TSL-532-140-200	199.9	140x140	15.5	10.0	10.4	219.9	M130x1	22.0	216.9	532nm
TSL-355-18-56	56.0	18x18	5.0	6.0	15.0	77.3	M85x1	18.0	73.8	355nm
TSL-355-35-80	80.0	35x35	8.7	6.0	19.0	106.4	M55x1	13.0	104.4	355nm
TSL-355-60-100Q	100.0	60x60	22.0	6.0	25.0	148.3	M85x1	20.0	143.3	355nm
TSL-355-63-109	109.0	63x63	14.0	6.0	24.2	151.1	M85x1	13.0	151.4	355nm
TSL-355-60-115	115.0	60x60	9.5	6.0	21.3	157.0	M85x1	20.0	154.0	355nm

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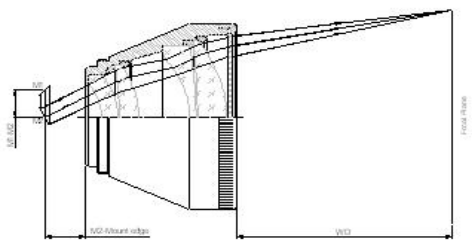
TSL-355-60-167A	167.0	60x60	7.71	10.0	14.4	225.6	M85x1	22.0	222.6	355nm
TSL-355-86-254	254.0	86x86	30.0	6.0	14.0	151.1	M85x1	10.5	147.1	355nm
TSL-355-160-360	360.0	160x160	23.5	10.0	18.5	442.2	M150x1	16.0	440.1	355nm
TSL-266-20-55	55.0	20x20	4.1	6.0	15.0	52.6	M44x1	12.0	51.2	266nm
TSL-266-50-100	100.0	50x50	7.6	5.0	21.0	137.1	M85x1	18.0	135.6	266nm

NOTE: Telecentric Scan lenses of different specs are available upon request
*spot size for reference only

Glass Series F-Theta Scan Lens

F-theta lenses are commonly used in conjunction with galvanometer scanning mirrors in laser engraving, cutting, and marking systems. The reason it being named as F-theta is due to the radial image height equals to focal length of the lens multiplied by the angle of the chief ray makes in the object space. Hence, from the image height, the distortion of the image can be calculated at each field of interest. Typically the F-theta distortion of this lens is kept less than 1% so that it produces a precise spot on the flat field on image plane.



Part No.	EFL (mm)	Scan Field (mm)	*Spot size (µm)	Entrance Pupil (mm)	Max. Scan Angle (deg.)	BFL (mm)	Thread	M1-M2 Separa-tion (mm)	WD (mm)	Wavelength
SL-2000-100-160	160.0	100x100	77.3	10.0	24.8	183.6	M55x1	13.7	179.6	2000nm
SL-2000-175-254	254.0	175x175	96.2	10.0	27.8	285.2	M55x1	13.7	281.7	2000nm
SL-1550-100-160	160.0	100x100	43.0	9.0	25.0	185.9	M85x1	14.0	175.6	1550nm
SL-1550-240-420	420.0	240x240	91.0	10.0	23.1	506.3	M85x1	13.0	504.3	1550nm
SL-1064-45-80	80.0	45x45	11.8	10.0	23.0	93.3	M55x1	13.0	91.35	1064nm
SL-1064-70-100	100.0	70x70	11.0	14.0	25.0	105.3	M85x1	14.0	98.8	1064nm
SL-1064-F160-30	160.0	70x70	25.0	30.0	18.0	177.3	M100x1	35.0	172.3	1064nm
SL-1064-F160B	160.0	100x100	27.5	10.0	25.0	181.6	M85x1	16.0	178.6	1064nm
SL-1064-112-163	163.0	112x112	30.0	10.0	25.0	188.9	M85x1	20.0	184.9	1064nm
SL-1064-F165-25	165.0	100x100	18.3	25.0	22.5	204.1	M85x1	30.0	197.1	1064nm
SL-1064-F201-30	201.0	30x30	13.0	30.0	42.0	246.0	M85x1	36.0	243.0	1064nm