



HAN'S SCANNER

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F-theta Lens

Han's Scanner F-Theta lens series products are the most commonly used parts in the laser field. After our continuous improving and updating, we have improved its quality, following the development direction of international industrial laser cutting, and have developed a series of products. In addition to regular marking F-theta lens, there are water-cooled F-Theta lenses for higher power, as well as for faster pulses of ultra-fast lasers. Common F θ scan lens can be widely used in various laser application fields such as laser marking, engraving and scribing.





Key Features Of F-theta Lens

Han's Scanner F-Theta lens series products suitable for different laser wavelengths: 1064nm, 532nm and 355nm. In laser applications of different wavelengths, a series of products with different focal lengths, entrance pupil diameters, and powers are subdivided. According to the latest laser application trend, the fly-second optical system for ultrafast laser is developed.



Specifications of F-theta Lens

Infrared F-Theta lens

Specification model	focal length (mm)	Clear aperture (mm)	Scanning angle	Marking range (mm)	Applicable wavelength (mm)	Focus spot (μm)	Dimensions (mm)	distance of M1	distance of M2	Working distance (mm)	Connection method
GF101005RY	100	Φ12	±25°	55*55	1030-1080	16μm	Φ90*70.5	12.6	16.5	122.5	M85*1.0
MF161210IR	164	Φ12	±25°	100*100	1030-1080	28μm	Φ90*42	12.6	22.25	185.5	M85*1.0
GF161010IR	164	Φ10	±25°	100*100	1030-1080	30μm	Φ90*53	12.6	15.35	203.5	M85*1.0
GF161410IR	164	Φ14	±25°	100*100	1030-1080	25μm	Φ95*63	14.7	15.4	208.2	M85*1.0
F251618IR	258	Φ16	±27°	180*180	1030-1080	32μm	Φ112*56	16.5	29.8	299	M85*1.0
F351825IR	354	Φ18	±29°	250*250	1030-1080	37μm	Φ140*64	16.5	24.2	407	M85*1.0
F392425R	390	Φ24	±25°	250*250	1030-1080	32μm	Φ95*46	35	25.7	420.8	M85*1.0

Infrared high power F-Theta lens

Specifications	focal length (mm)	Clear aperture (mm)	Scanning angle	Marking range (mm)	Applicable wavelength (mm)	Focus spot (μm)	Dimensions (mm)	distance of M1	distance of M2	Working distance (mm)	Connection method	Remark
XSF173010RY	170	Φ30	±25°	105*105	650/1064	10μm	Φ147* 111	35.6	29	194	M112*1.0	Achromatic lens
DGF 253013 IRWAT	254	Φ30	±20°	135*135	1030-1080	20μm	Φ150* 90	36	28.5	316.5	Flange connection	Water-cooled lens
DGF 333016 IRWAT	330	Φ30	±21°	175*175	1030-1080	23μm	Φ162* 92	36	30	417	Flange connection	Water-cooled lens
DGF 463023 IRWAT	460	Φ30	±21°	245*245	1030-1080	30μm	Φ162* 91	37	29	565	Flange connection	Water-cooled lens

Green F-Theta lens

Specification model	focal length(mm)	Clear aperture(mm)	Scanning angle	Marking range(mm)	Applicable wavelength(mm)	Focus spot (μm)	Dimensions (mm)	distance of M1	distance of M2	Working distance (mm)	Connection method
MF061004GY	64	Φ10	±25°	40*40	532	7μm	Φ90* 62	12.6	16.75	74.1	M85*1.0
GF071004GY	74	Φ10	±21.5°	40*40	532	8μm	Φ90* 70	12.6	15.5	91.2	M85*1.0
MF101005GY	100	Φ10	±25°	50*50	532	10μm	Φ115*73	12.6	15.2	110	M85*1.0
GF121206GY	115	Φ14	±21°	65*65	532	8.5μm	Φ112* 93	14.7	23.5	147.2	M85*1.0
MF161610GOO	164	Φ16	±25°	100*100	532	10μm	Φ96* 50	14.7	22.5	188.5	M85*1.0
MF252016GOO	258	Φ20	±25°	160*160	532	13μm	Φ90*46	26.5	18.5	287.5	M85*1.0
HF481630GOO	480	Φ16	±25°	315*315	532	30μm	Φ95*53	14.7	20.5	482	M85*1.0

UV F-Theta lens

Specification model	focal length (mm)	Clear aperture (mm)	Scanning angle	Marking range (mm)	Applicable wavelength (mm)	Focus spot (μm)	Dimensions (mm)	distance of M1	distance of M2	Working distance(mm)	Connection method
GF101205UVOY	100	$\Phi 12$	$\pm 22^\circ$	55*55	355	7 μm	$\Phi 90 * 65$	14.7	15	123	M85*1.0
HF161010UVO	161	$\Phi 10$	$\pm 25^\circ$	100*100	355	10 μm	$\Phi 90 * 53$	12.6	15.8	196	M85*1.0
GF251016UV	254	$\Phi 10$	$\pm 25^\circ$	165*165	355	17 μm	$\Phi 95 * 54$	12.6	21.35	309.5	M85*1.0