

# F-Theta Lenses

## Flat field lenses for galvanometer scanning laser marking, engraving and cutting systems

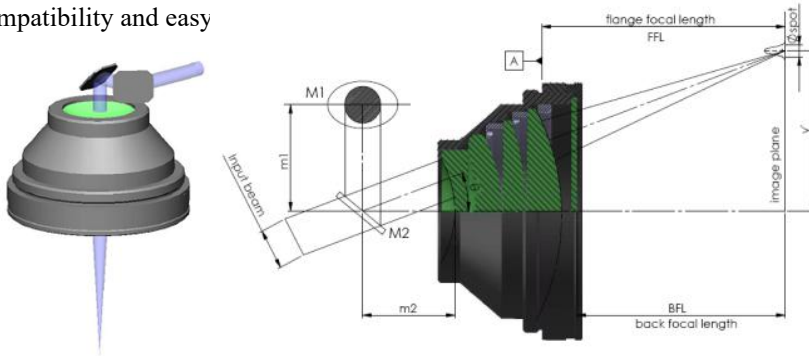


### Applications

- Laser industrial processing
- Laser sensing system
- Ultrafast laser system

CASTECH's products are produced independently throughout the entire process and can be customized according to customer needs. Refer to the following list for standard products.

**F-theta lenses** are often used in laser marking, laser engraving and laser cutting systems where constant scan rate and linear displacement are required. F-theta lenses induce spot distortion over the entire working area, providing a flat field to the image plane so that the spot position is proportional to the scanning angle. CASTECH can provide both telecentric and non-telecentric F-theta field mirrors. Due to the use of high quality low-absorption materials, as well as unique polishing and coating technologies, CASTECH's F-theta lenses have high laser damage thresholds. All lenses have standardized threaded interfaces for compatibility and easy



### F-Theta Lenses Model Number: FT-a-b-c

Wavelength (a)	Focal Distance (b)	Scan Field (c)
355 nm ...	109    109.4 mm	63    63 × 63 mm <sup>2</sup>
	160    160 mm	99    99 × 99 mm <sup>2</sup>
	174    174.1 mm	107    107 × 107 mm <sup>2</sup>
	225    255 mm	158    158 × 158 mm <sup>2</sup>
	...    ...	...    ...

### Typical Specifications

Material	Max Input Beam	Scan Field	Wd	M1/M2
UVFS	6 mm	63x63 mm <sup>2</sup>	151.5 mm	13/35.5
UVFS	7 mm	99x99 mm <sup>2</sup>	194.43 mm	13/23
UVFS	10 mm	158x158 mm <sup>2</sup>	319.7 mm	13/28

### Housing dimensions(mm):

