

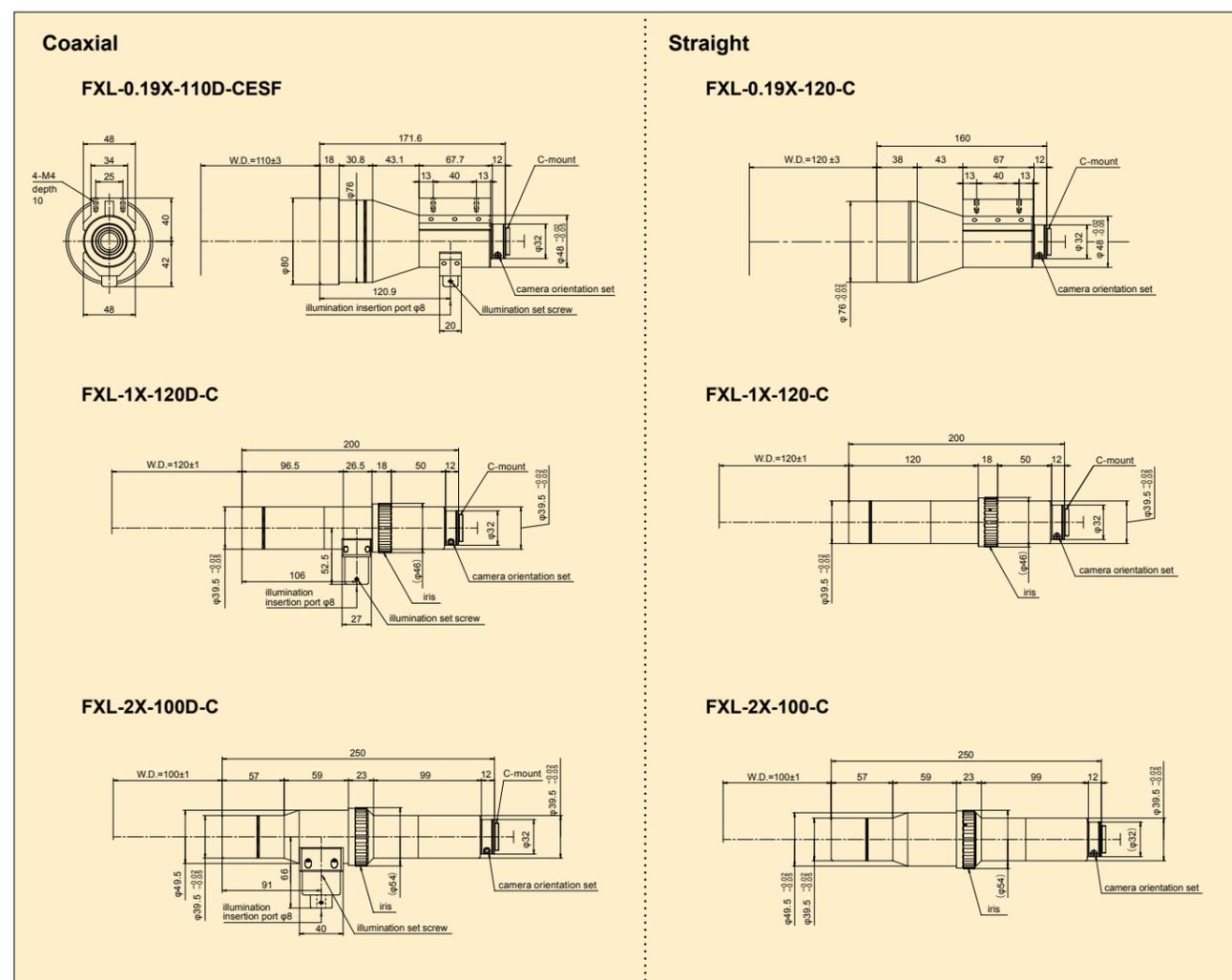
Telecentric Lens for 5 Megapixel Camera

# FXL series

## Coaxial type/Straight type

Telecentric lens compatible with 5M pixel camera. Ideal for capturing image in wide field, and high-resolution alignment.

Over 100mm WD enables inspection both with incident lighting and coaxial lighting.



### Specification

Model #	Coaxial	FXL-0.19X-110D-CEFS	FXL-1X-120D-C	FXL-2X-100D-C
	Straight	FXL-0.19X-120-C	FXL-1X-120-C	FXL-2X-100-C
Magnification		0.19X	1X	2X
Working distance		Coaxial : 110mm Straight : 120mm	120mm	100mm
Focal depth		13.3mm	560μm	320μm
Distortion		0.02% or less	0.05% or less	0.05% or less
Resolution LP/mm		48LP/mm	192LP/mm	340LP/mm
Resolution power		21μm	5.2μm	2.9μm
N.A		0.017	0.072	0.13
F number		6	7	8
Camera mount		C-MOUNT		
Equivalent CCD		under 2/3 inch camera		
Weight	Coaxial	580g	410g	540g
	Straight	480g	360g	490g

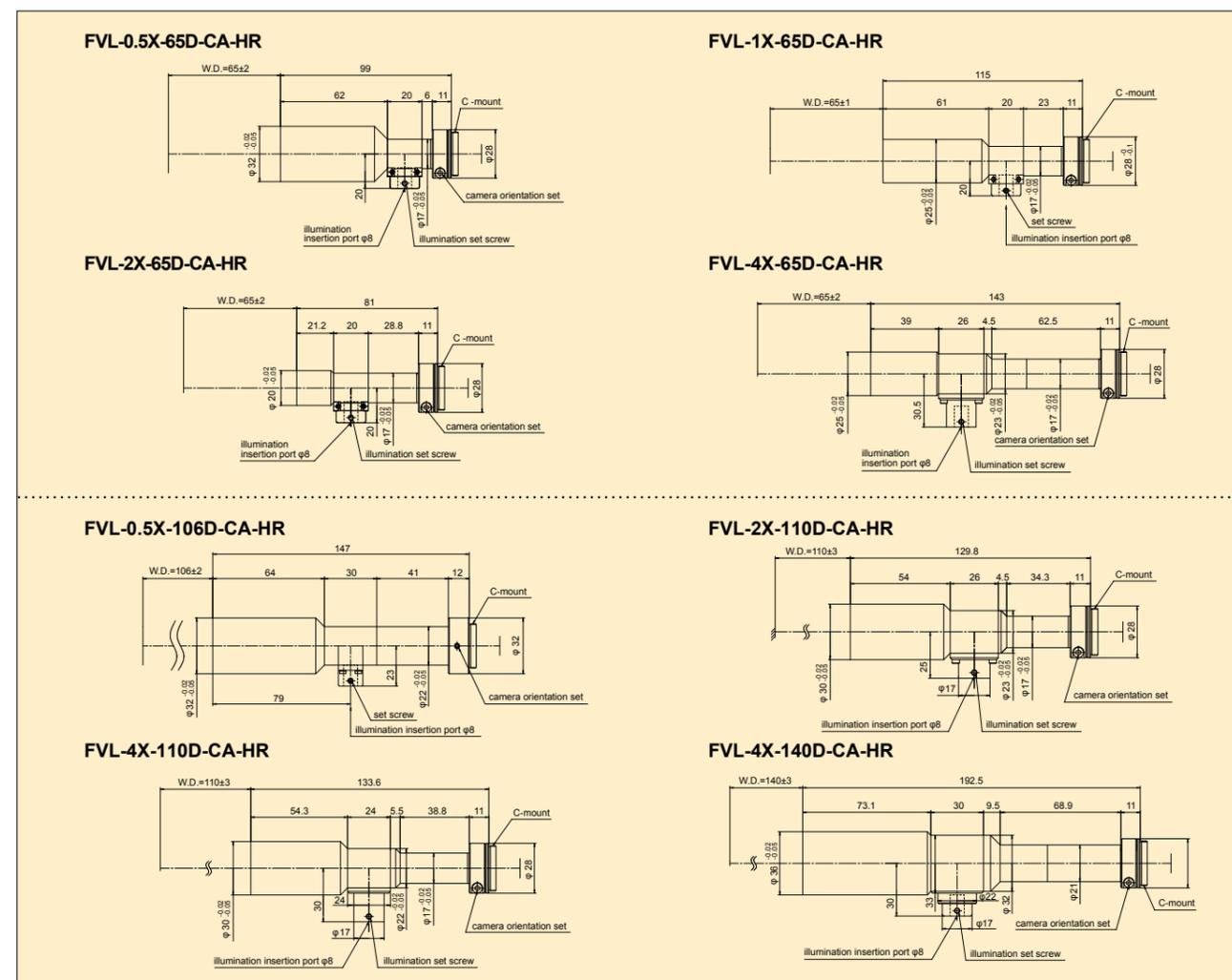
Telecentric Lens for 2 Megapixel Camera

# FVL HR series

## Coaxial type/Straight type

Telecentric lens for 2 megapixel camera. Designed for high-resolution alignment and measurement. (some models are compatible with 5 megapixel camera.)

The lens works at WD 65mm and over 100mm.



### Specification

Model #	Coaxial	FVL-0.5X-65D-CA-HR	FVL-1X-65D-CA-HR	FVL-2X-65D-CA-HR	FVL-4X-65D-CA-HR	FVL-0.5X-106D-CA-HR	FVL-2X-110D-CA-HR	FVL-4X-110D-CA-HR	FVL-4X-140D-CA-HR
	Straight	FVL-0.5X-65-CA-HR	FVL-1X-65-CA-HR	FVL-2X-65-CA-HR	FVL-4X-65-CA-HR	FVL-0.5X-106-CA-HR	FVL-2X-110-CA-HR	FVL-4X-110-CA-HR	FVL-4X-140-CA-HR
Magnification		0.5X	1X	2X	4X	0.5X	2X	4X	4X
Working distance		65mm	65mm	65mm	65mm	106mm	110mm	110mm	140mm
Focal depth		2.1mm	808μm	270μm	80μm	2.8mm	240μm	0.1μm	106μm
Distortion		0.03% or less	0.1% or less	0.01% or less	0.02% or less	0.05% or less	0.01% or less	0.025% or less	0.015% or less
Resolution LP/mm		108LP/mm	147LP/mm	222LP/mm	333LP/mm	80LP/mm	222LP/mm	256LP/mm	250LP/mm
Resolution power		9.2μm	6.8μm	4.5μm	2.7μm	12.0μm	3.9μm	3.5μm	3.5μm
N.A		0.0365	0.049	0.075	0.125	0.028	0.085	0.096	0.096
F number		6.8	10.1	13.3	15.8	8.8	11.8	21	21.2
Camera mount		C-MOUNT							
Equivalent CCD		under 2/3 inch camera							
Weight	Coaxial	100g	82g	56g	106g	140g	106g	110g	220g
	Straight	94g	76g	50g	100g	133g	100g	102g	210g

Note: Resolution power is calculated as theoretical resolution based on NA of wavelength of 550nm.  
Note: Focal depth is calculated as maximum circle of confusion is φ40μm.