

## Eye Vision Technology Lenses



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## *Catalogue*

### *Machine Vision Lenses Series*

2.0 Megapixel Manual Iris Lenses

2.0 Megapixel Auto Iris Lenses

2.0 Megapixel Vari-focal Manual Iris Lenses

2.0 Megapixel Vari-focal Auto Iris Lenses

3.0 Megapixel Vari-focal Manual Iris Lenses

5.0 Megapixel Manual Iris Lenses

Telecentric Lenses

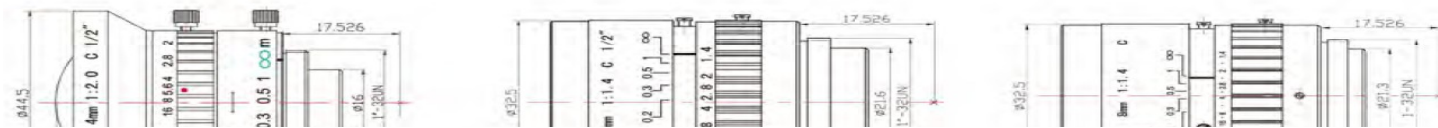
2.0 Megapixel Lenses

1/2" Format Manual Iris Fixed Lenses



Item No	FIFO-0420MM	FIFO-0614MM	FIFO-0814MM
Resolution	2.0 mega-pixel	2.0 mega-pixel	2.0 mega-pixel
Focal Length	4 mm	6 mm	8 mm
Back Focus	8.77 mm	9.262 mm	11.453 mm
Mount	C	C	C
F / No	2.0	1.4	1.4
Iris Range	F2.0~F16	F1.4~F32	F1.4~F32
Format	1/2"	1/2"	1/2"
Horizontal Angle	1/2" format	77.32°	54.6°
	1/3" format	61.93°	42.3°
	1/4" format	48.46°	32.4°
Iris Type	Manual Iris	Manual Iris	Manual Iris
Distortion	< -2.8 %	< 1 %	< 1 %
Focusing Range	∞ ~ 0.1 m	∞ ~ 0.1 m	∞ ~ 0.1 m
Elements	10	9	8
Dimension	∅ 44.5 x 35.97 mm	∅ 32.5 x 32.514 mm	∅ 32.5 x 38.5 mm
Filter Thread	----	M30.5 x 0.5	M30.5 x 0.5
Weight	130g	100g	107g

Dimensions



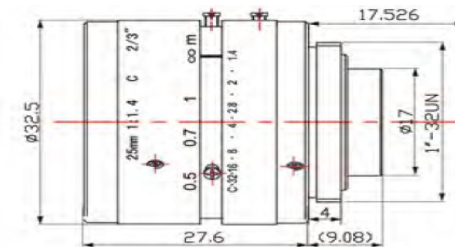
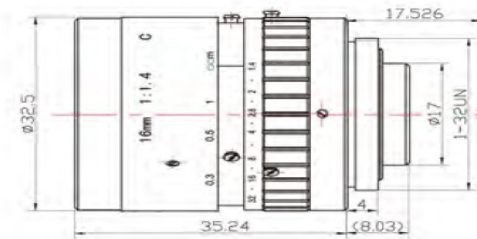
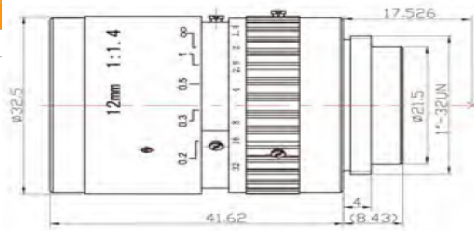
2.0 Megapixel Lenses

2/3" Format Manual Iris Fixed Lenses



Item No	FIFO-1214MM	FIFO-1614MM	FIFO-2514MM
Resolution	2.0 mega-pixel	2.0 mega-pixel	2.0 mega-pixel
Focal Length	12 mm	16 mm	25 mm
Back Focus	9.62 mm	9.87 mm	9.04 mm
Mount	C	C	C
F / No	1.4	1.4	1.4
Iris Range	F1.4~F32	F1.4~F32	F1.4~F32
Format	2/3"	2/3"	2/3"
Horizontal Angle	1/2" format	37.94°	29.02°
	1/3" format	28.07°	21.32°
	1/4" format	21.23°	12.08°
Iris Type	Manual Iris	Manual Iris	Manual Iris
Distortion	< -1 %	< -1 %	< -1 %
Focusing Range	∞ ~ 0.1 m	∞ ~ 0.2 m	∞ ~ 0.3 m
Elements	9	8	6
Dimension	∅ 32.5 x 41.62 mm	∅ 32.5 x 35.24 mm	∅ 32.5 x 27.6 mm
Filter Thread	M30.5 x 0.5	M30.5 x 0.5	M30.5 x 0.5
Weight			

Dimensions



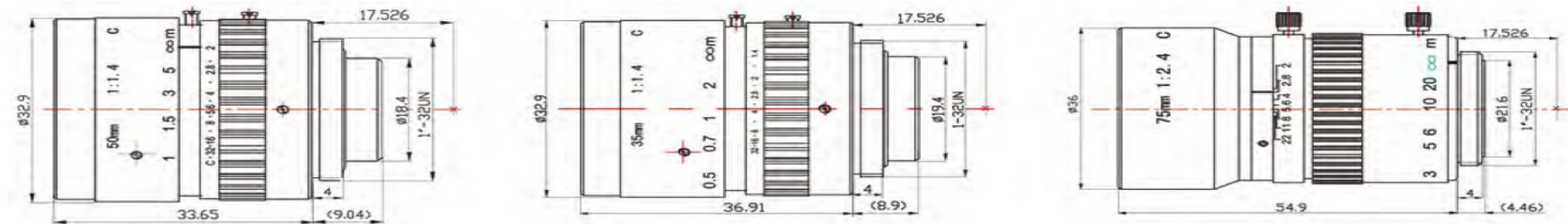
## 2.0 Megapixel Lenses

### 2/3" Format Manual Iris Fixed Lenses



Item No	FIFO-3514MM	FIFO-5020MM	FIFO-7524MM
Resolution	2.0 mega-pixel	2.0 mega-pixel	2.0 mega-pixel
Focal Length	35 mm	50 mm	75 mm
Back Focus	9.44 mm	9.4 mm	17.14 mm
Mount	C	C	C
F / No	1.4	2.0	2.4
Iris Range	F1.4~F32	F2.0~F32	F2.4~F22
Format	2/3"	2/3"	2/3"
Horizontal Angle	2/3" format	14.33°	10.06°
	1/2" format	10.45°	7.32°
	1/3" format	7.85°	5.50°
	1/4" format	5.89°	4.12°
Iris Type	Manual Iris	Manual Iris	Manual Iris
Distortion	< -1 %	< 0.4 %	< 0.6 %
Focusing Range	∞ ~ 0.5 m	∞ ~ 1 m	∞ ~ 1 m
Elements	6	6	4
Dimension	∅ 32.9 x 36.91 mm	∅ 32.9 x 33.65 mm	∅ 36 x 54.9 mm
Filter Thread	M30.5 x 0.5	M30.5 x 0.5	M34 x 0.5
Weight	90g	80g	140g

#### Dimensions



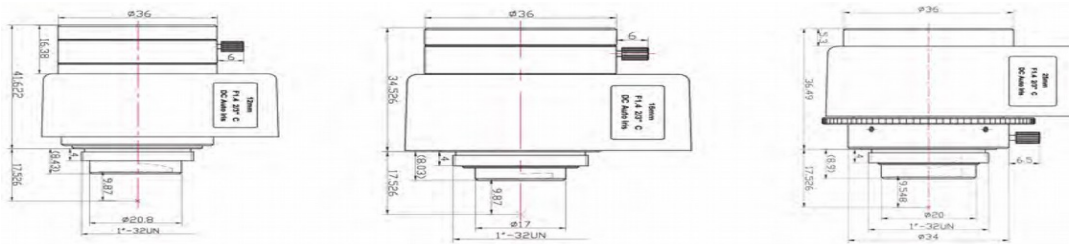
## 2.0 Megapixel Lenses

### Fixed Mega-pixel Auto Iris Lenses



Item No	FIFO-1214DM	FIFO-1614DM	FIFO-2514DM
Resolution	2.0 mega-pixel	2.0 mega-pixel	2.0 mega-pixel
Focal Length	12 mm	16 mm	25 mm
Back Focus	9.62 mm	9.14 mm	9.04 mm
Mount	C	C	C
F / No	F1.4~Close	F1.4~Close	F1.4~Close
Iris Range	1.4	1.4	1.4
Format	2/3"	2/3"	2/3"
Horizontal Angle	2/3" format	37.94°	29.02°
	1/2" format	28.07°	21.32°
	1/3" format	21.23°	16.07°
	1/4" format	17.06°	12.08°
Iris Type	Auto Iris	Auto Iris	Auto Iris
Distortion	< -1 %	< -1 %	< -1 %
Focusing Range	∞ ~ 0.1 m	∞ ~ 0.2 m	∞ ~ 0.3 m
Elements	9	8	6
Dimension	∅ 36 x 41.62 mm	∅ 36 x 34.64 mm	∅ 36 x 36.49 mm
Filter Thread	M30.5 x 0.5	M30.5 x 0.5	M30.5 x 0.5
Weight	146g	126.5g	101.5g

### Dimensions



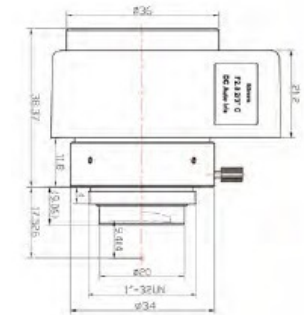
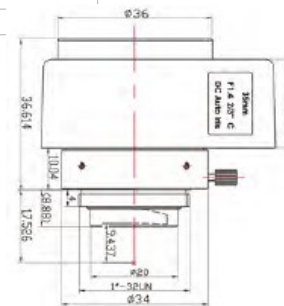
## 2.0 Megapixel Lenses

### Fixed Mega-pixel Auto Iris Lenses



Item No	FIFO-3514DM	FIFO-5020DM
Resolution	2.0 mega-pixel	2.0 mega-pixel
Focal Length	35 mm	50 mm
Back Focus	9.44 mm	9.4 mm
Mount	C	C
F / No	F1.4~Close	F2.0~Close
Iris Range	1.4	2.0
Format	2/3"	2/3"
Horizontal Angle	2/3" format	14.33°
	1/2" format	10.45°
	1/3" format	7.85°
	1/4" format	5.89°
Iris Type	Auto Iris	Auto Iris
Distortion	< -1 %	< -1 %
Focusing Range	∞ ~ 0.5 m	∞ ~ 1 m
Elements	6	6
Dimension	∅ 36 x 36.61 mm	∅ 36 x 38.37 mm
Filter Thread	M30.5 x 0.5	M30.5 x 0.5
Weight	104.5g	

#### Dimensions



## Vari-focal Lens Series

### 2.0 Megapixel Vari-focal Manual Iris Lens Series



Item No	FIFO-IR02812ZM	FIFO-0412ZM	FIFO-0660ZMS
Resolution	2.0 mega-pixel	2.0 mega-pixel	2.0 mega-pixel
Focal Length	2.8~12 mm	4.0~12 mm	6.0~60 mm
Back Focus	13.09~20.1 mm	9.55~16.5 mm	8.4 mm
Mount	C	C	CS
F / No	1.6	1.4	1.6
Format	1/2"	1/2"	1/2.5", 1/3"
Iris Type	Manual Iris	Manual Iris	Manual Iris
Angle of view	98° ~ 30.5°	92° ~ 31.2°	51° ~ 6°
Focusing Range	∞ ~ 0.1 m	∞ ~ 0.3 m	∞ ~ 0.3 m
Dimension	∅ 43 x 67.5 mm	∅ 37.2 x 61.5 mm	∅ 34 x 69 mm



## Vari-focal Lens Series

### 2.0 Megapixel Vari-focal Manual Iris Lens Series



Item No	FIFO-1236ZM	FIFO-0850ZM	FIFO-1060ZMS
Resolution	2.0 mega-pixel	2.0 mega-pixel	2.0 mega-pixel
Focal Length	12~36 mm	8.0~50 mm	10~60 mm
Back Focus	10.51 mm	9.7~14.08 mm	13.09 mm
Mount	C	C	CS
F / No	2.8	1.6	1.4
Format	2/3"	1/2"	2/3"
Iris Type	Manual Iris	Manual Iris	Manual Iris
Angle of view	49.6° ~ 17°	41° ~ 7.2°	51° ~ 11°
Focusing Range	∞ ~ 0.1 m	∞ ~ 1 m	
Dimension	∅ 38.5 x 53.97 mm	∅ 42 x 65.6 mm	∅ 59.5 x 126.97 mm
Filter Thread	M35.5 x 0.5 mm		M49 x 0.75 mm

## Vari-focal Lens Series

### 2.0 Megapixel Vari-focal Manual Iris Lens Series



Item No	FIFO-IR02812ZMB	FIFO-IR0922ZMB
Resolution	2.0 mega-pixel	2.0 mega-pixel
Focal Length	2.8~12 mm	9~22 mm
Back Focus	6.39 mm	
Mount	M12x 0.5 mm	M12x 0.5 mm
F / No	1.4	1.4
Format	1/2.7"	1/2"
Iris Type	Manual Iris	Manual Iris
Angle of view	93° ~ 28.7°	
Focusing Range	∞ ~ 0.2 m	
Dimension	∅ 28.6 x 48.51 mm	∅ 28 x 41 mm

## Vari-focal Lens Series

### 2.0 Megapixel Vari-focal Auto Iris Lens Series



Item No	FIFO-IR02809ZD	FIFO-IR02812ZD	FIFO-0412ZD
Resolution	2.0 mega-pixel	2.0 mega-pixel	2.0 mega-pixel
Focal Length	2.8~9 mm	2.8~12 mm	4.0~12 mm
Back Focus			9.55~16.5 mm
Mount	C	C	C
F / No	1.4	1.6	1.4
Format	1/3"	1/2"	1/2"
Iris Type	Auto Iris	Auto Iris	Auto Iris
Iris Range	F1.4 ~ Close	F1.6 ~ Close	F1.4 ~ Close
Angle of view	105° ~ 42°	98° ~ 30.5°	92° ~ 31.2°
Focusing Range	∞ ~ 0.3 m	∞ ~ 0.1 m	∞ ~ 0.3 m
Dimension	∅ 47.2 x 50.5 mm	∅ 42.5 x 64.3 mm	∅ 37.2 x 45.6 x 61.5 mm

## Vari-focal Lens Series

### 2.0 Megapixel Vari-focal Auto Iris Lens Series



Item No	FIFO-0660ZDS	FIFO-1236ZD	FIFO-0850ZD
Resolution	2.0 mega-pixel	2.0 mega-pixel	2.0 mega-pixel
Focal Length	6.0~60 mm	12~36 mm	8.0~50 mm
Back Focus	8.4 mm	10.51 mm	9.7~14.08 mm
Mount	CS	C	C
F / No	1.6	2.8	1.6
Format	1/2.5, 1/3"	2/3"	1/2"
Iris Type	Auto Iris	Auto Iris	Auto Iris
Iris Range	F1.6 ~ Close	F2.8 ~ Close	F1.6 ~ Close
Angle of view	51° ~ 6°	49.6° ~ 17°	41° ~ 7.2°
Focusing Range	∞ ~ 0.3 m	∞ ~ 0.1 m	∞ ~ 1 m
Dimension	∅ 34 x 69 mm	∅ 38.5 x 53.97 mm	∅ 42 x 47.5 x 65.6 mm

## Vari-focal Lens Series

### 2.0 Megapixel Vari-focal Auto Iris Lens Series



Item No	FIFO-1060ZD	FIFO-02812ZDB	FIFO-0922ZDB
Resolution	2.0 mega-pixel	2.0 mega-pixel	2.0 mega-pixel
Focal Length	10~60 mm	2.8~12 mm	9~22 mm
Back Focus	13.09 mm	6.39 mm	
Mount	C	M12x 0.5 mm	M12x 0.5 mm
F / No	1.4	1.4	1.4
Format	2/3"	1/2.7"	
Iris Type	Auto Iris	Auto Iris	Auto Iris
Iris Range	F1.4 ~ Close	F1.4 ~ Close	F1.4 ~ Close
Angle of view	51° ~ 11°	93° ~ 28.7°	
Focusing Range		∞ ~ 0.2 m	
Dimension	∅ 55 x 126.98 mm	∅ 28.6x 45.51x 34.6 mm	∅ 41x 28 mm

**Vari-focal Lens Series**

**2.0 Megapixel Vari-focal Auto Iris Lens Series**



Item No	FIFO-IR0308Z3M	FIFO-IR0412Z3M	FIFO-IR0412Z3MS
Resolution	3.0 mega-pixel	3.0 mega-pixel	3.0 mega-pixel
Focal Length	3~8 mm	4~12 mm	4~12 mm
Mount	C	C	C
F / No	1.4	1.4	1.4
Format	1/2.7"	1/2.7"	1/2.7"
Iris Type	Auto Iris	Auto Iris	Auto Iris
Angle of view	37° ~ 86°	27.6° ~ 78°	29°~76°
Focusing Range	∞ ~ 0.2 m	∞ ~ 0.2 m	∞ ~ 0.2 m
Dimension	ϕ 33.2 x 45.3 x 42.1 mm	ϕ 42.5 x 64.2x 54 mm	ϕ 33.2 x 45.3 x 42.1 mm
Weight	_____	_____	_____

## Vari-focal Lens Series

### 2.0 Megapixel Vari-focal Auto Iris Lens Series



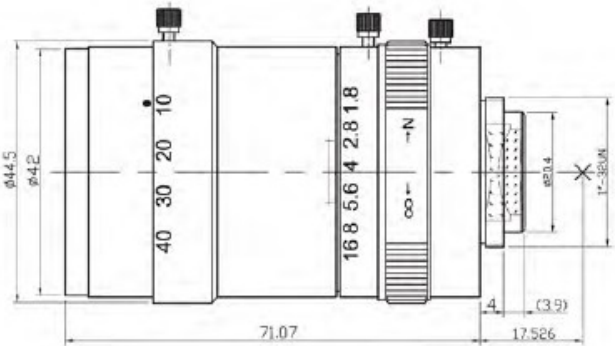
Item No	FIFO-IR1050Z2M	FIFO-IR1050Z3M
Resolution	2.0 mega-pixel	3.0 mega-pixel
Focal Length	10~50 mm	10~50 mm
Mount	C	C
F / No	1.4	1.4
Format	1/2.7"	1/2.7"
Iris Type	2 Motors Drivers	Auto Iris
Angle of view	29.6° ~ 7.4°	29.6° ~ 7.4°
Focusing Range	∞ ~ 0.2 m	∞ ~ 0.2 m
Dimension	∅ 77.5 x 83.5 mm	∅ 42 x 70.1 x 47.8 mm
Weight	340g	146g

**3.0 MP Vari-focal Lens Series**

**Vari-focal Manual Iris Lens**



Item No	<b>FIFO-1040Z3M</b>
Resolution	3.0 mega-pixel
Focal Length	10~40 mm
Back Focus	10.1 mm
Mount	C
F / No	1.8
Format	2/3"
Iris Type	Manual Iris
Distortion	2% - 5%
Angle of view	49° ~ 16°
Focusing Range	∞ ~ 0.3 m
IR Correction	OK
Coating Range	400 nm ~ 950 nm
Filter Thread	∅ 44.5 x 71.07 mm
Dimension	M40.5 x 0.5 mm
Weight	225g



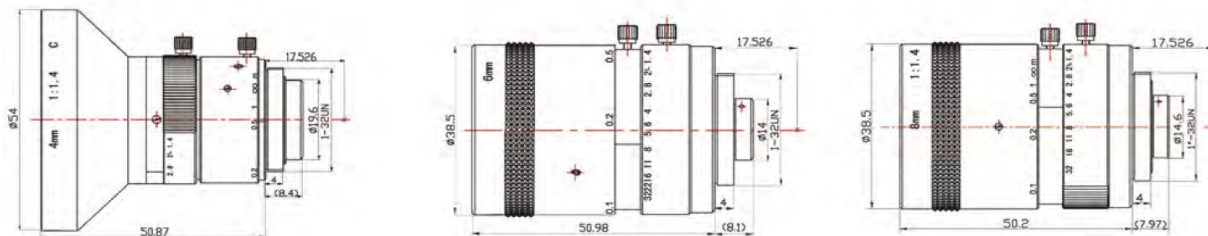


5.0 Megapixel Lens Series



Item No	FIFO-0414M5M	FIFO-0614M5M	FIFO-0814M5M
Resolution	5.0 mega-pixel	5.0 mega-pixel	5.0 mega-pixel
Focal Length	4 mm	6 mm	8 mm
Back Focus	10.342 mm	9.8 mm	9.91 mm
Mount	C	C	C
F / No	1.4	1.4	1.4
Iris Range	F1.4~F32	F1.4~F32	F1.4~F32
Format	1/2"	1/2"	2/3"
Iris Type	Manual Iris	Manual Iris	Manual Iris
Angle of view	85°	64.4°	66°
Distortion	< -1.6%	< -1%	< -1%
Focusing Range	∞ ~ 0.1 m	∞ ~ 0.05 m	∞ ~ 0.1 m
Dimension	∅ 54 x 50.87 mm	∅ 38.5 x 50.98 mm	∅ 38.5 x 50.2 mm
Filter Thread	M52.0 x 0.75	M35.5 x 0.5	M35.5 x 0.5
Weight	142g	140g	156g

Dimensions

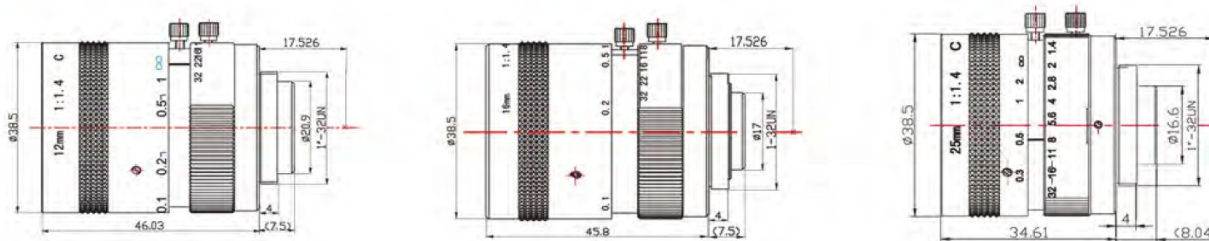


## 5.0 Megapixel Lens Series



Item No	FIFO-1214M5M	FIFO-1614M5M	FIFO-2514M5M
Resolution	5.0 mega-pixel	5.0 mega-pixel	5.0 mega-pixel
Focal Length	12 mm	16 mm	25 mm
Back Focus	10.365 mm	10.27 mm	9.97 mm
Mount	C	C	C
F / No	1.4	1.4	1.4
Iris Range	F1.4~Close	F1.4~Close	F1.4~Close
Format	2/3"	2/3"	2/3"
Iris Type	Manual Iris	Manual Iris	Manual Iris
Angle of view	47.1°	37.4°	23.6°
Distortion	< -0.2%	< -0.2%	< -0.1%
Focusing Range	∞ ~ 0.1 m	∞ ~ 0.02 m	∞ ~ 0.3 m
Dimension	∅ 38.5 x 46.03 mm	∅ 38.5 x 45.8 mm	∅ 38.5 x 34.61 mm
Filter Thread	M35.5 x 0.5	M35.5 x 0.5	M35.5 x 0.5
Weight	150g	139g	110g

### Dimensions

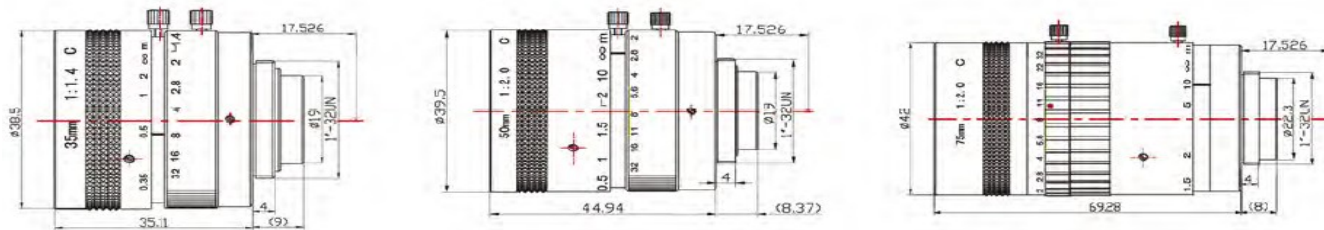


## 5.0 Megapixel Lens Series



Item No	FIFO-3514M5M	FIFO-5020M5M	FIFO-7520M5M
Resolution	5.0 mega-pixel	5.0 mega-pixel	5.0 mega-pixel
Focal Length	35 mm	50 mm	75 mm
Back Focus	9.188 mm	9.78 mm	10.65 mm
Mount	C	C	C
F / No	1.4	2.0	2.0
Iris Range	F1.4~F32	F1.4~F32	F1.4~F32
Format	2/3"	2/3"	2/3"
Iris Type	Manual Iris	Manual Iris	Manual Iris
Angle of view	17.5°	12.4°	8.3°
Distortion	< -0.1%	< -0.1%	< -0.1%
Focusing Range	∞ ~ 0.35 m	∞ ~ 0.4 m	∞ ~ 1 m
Dimension	∅ 38.5 x 35.1 mm	∅ 39.5 x 44.94 mm	∅ 42 x 69.28 mm
Filter Thread	M35.5 x 0.5	M35.5 x 0.5	M40.5 x 0.5
Weight	120g	152g	290g

### Dimensions



## Telecentric Lens Series

### WD 40 mm Telecentric Lens

▶ Standard Type



Item No	Working Distance	Magnification	Mount	NA	Format	Effective F/No	Distortion	Price
<b>FIFO-4020THM</b>	40 mm	2.0x	C	0.1	1/2"	21.08 mm	< 0.1 %	728

### WD 65 mm Telecentric Lens Series



Item No	FIFO-6505THM	FIFO-6508TSM	FIFO-6510TSM	FIFO-6515TSM	FIFO-6520TSM
Working distance	65 mm	65 mm	65 mm	65 mm	65 mm
Magnification	0.5x	0.8x	1.0x	1.5x	2.0x
Mount	C	C	C	C	C
NA	0.026	0.027	0.027	0.048	0.057
Effective F / No	9.5	14.9	18.6	15.5	17.3
Format	2/3"	1/2"	2/3"	1/2"	1/2"
Resolution	12.8 μm	12.4 μm	12.5 μm	7 μm	5.8 μm
Depth of Field	1.6 mm	0.7 mm	0.78 mm	0.21 mm	0.13 mm
TV Distortion	< 0.00125 %	< 0.0002 %	< 0.0001 %	< 0.0005 %	< 0.00125 %
Weight	100g	50g	49.5g	47.5g	53g

**Telecentric Lens Series**



Item No	FIFO-6530TSM	FIFO-6540TSM
Working distance	65 mm	65 mm
Magnification	3.0x	4.0x
Mount	C	C
NA	0.069	0.073
Effective F / No	21.9	27
Format	1/2"	1/2"
Resolution	4.7 $\mu$ m	12.4 $\mu$ m
Depth of Field	1.6 mm	4.6 mm
TV Distortion	< 0.0035 %	< 0.002 %
Weight	53g	63g

## Telecentric Lens Series

### 2/3" Format Series



Item No	FIFO-6510TSMH	FIFO-6515TSMH
Working distance	65 mm	65 mm
Magnification	1.0x	1.5x
Resolution	55lp/mm	55lp/mm
Format	2/3"	2/3"
Mount	C	C
NA	0.027	0.048
Effective F / No	18.5	15.6
Filed Range	8.8x6.6 mm	4.3x3.2 mm
Depth of Field	1.49 mm	0.56 mm
TV Distortion	< 0.001%	< 0.0025%

## Telecentric Lens Series

### WD 65 mm 5.0 Mega-pixel Telecentric Lenses

Item No	FIFO-6503TH5M	FIFO-6505TH5M
Working distance	65 mm	65 mm
Magnification	0.3x	0.5x
Resolution	100lp/mm	100lp/mm
Format	2/3"	2/3"
Mount	C	C
NA	0.021	0.036
Effective F / No	7.14	6.94
Filed Range	2.9x2.2 mm	17.6x13.2 mm
Depth of Field	3.3 mm	1.2 mm
TV Distortion	< 0.005%	< 0.005%
Weight	121.5g	5.2g

### WD 110 mm Telecentric Lenses

Item No	FIFO-11005TH5M	FIFO-11008TSM	FIFO-11010TSM
Working distance	110 mm	110 mm	110 mm
Magnification	0.5x	0.8x	1.0x
Resolution	100lp/mm	100lp/mm	100lp/mm
Format	2/3"	2/3"	2/3"
Mount	C	C	C
NA	0.021	0.036	0.045
Effective F / No	7.14	11.1	11.1
Filed Range	17.6x13.2 mm	11x8.3 mm	8.8x6.6 mm
Depth of Field	3.3 mm	1.4 mm	1.4 mm
TV Distortion	< 0.01%	< 0.005%	< 0.005%
Weight	143g	114.5g	104g

## Telecentric Lens Series

### Coaxial Type 2/3" Format Series



Item No	FIFO-6503TH5MD	FIFO-6505TH5MD	FIFO-6510TSMDDH
Working distance	65 mm	65 mm	65 mm
Magnification	0.3x	0.5x	1.0x
Resolution	100lp/mm	100lp/mm	55lp/mm
Format	2/3"	2/3"	2/3"
Mount	C	C	C
NA	0.021	0.036	0.027
Effective F / No	7.14	6.94	18.5
Filed Range	2.9x2.2 mm	17.6x13.2 mm	8.8x6.6 mm
Depth of Field	3.3 mm	1.2 mm	1.49 mm
TV Distortion	< 0.005%	< 0.005%	< 0.001%
Weight	130g	_____	_____

Item No	FIFO-6515TSMDDH	FIFO-11008TSMDD	FIFO-11010TSMDD
Working distance	65 mm	110 mm	110 mm
Magnification	1.5x	0.8x	1.0x
Resolution	55lp/mm	100lp/mm	100lp/mm
Format	2/3"	2/3"	2/3"
Mount	C	C	C
NA	0.048	0.036	0.045
Effective F / No	15.6	11.1	11.1
Filed Range	4.3x3.2 mm	11x8.3 mm	8.8x6.6 mm
Depth of Field	0.56 mm	1.4 mm	1.4 mm
TV Distortion	< 0.0025%	< 0.005%	< 0.005%
Weight	_____	119.5	_____



**Telecentric Lens Series**

**Telecentric Zoom Lens**



Item No	<b>FIFO-0513XTHM</b>			
Resolution	100lp/mm			
Format	2/3"			
Mount	C			
Focal Length	63 mm			
Magnification	0.5x	0.75x	1.0x	1.3x
2/3" Format Angle of View (HxV)	17.6x13.2	11.7x8.8	8.8x6.6	6.5x5.8
1/2" Format Angle of View (HxV)	12.8x9.6	8.5x6.4	6.4x4.8	4.9x3.1
Working Distance (mm)	176	134	112.5	98.4
Distance from object to image (mm)	272.76	246.45	241.13	245.4
NA	0.047	0.047	0.047	0.047
Depth of Field (mm)	1.7	1.13	0.85	1.65
Distortion	< 0.04%	< 0.05%	< 0.03%	< 0.02%
Weight	349.5g			