

**MORITEX**

*Vision Creating Value*

NEW

# FA Lens

FA/CCTV

FA/Macro

FA/Line Scan



Compact  
Design

Vis/NIR  
AR Coating

Vibration  
Resistance





# FA/Macro Lenses

## FA/Macro Lenses for Machine Vision

### ● ML-MC-XR Series

- Compact Design
- Vis/NIR AR Coating
- Vibration Resistance

#### Features

- High resolving power 200lp/mm, 20MP, High resolution 2.2μm/pixel
- Large Format 1.1" compatible
- Optimized for WD 200 - 400mm



#### Specifications

Model name	Focal Length (mm)	Fno	Image Format Size	Pixel Size / Resolving Power	WD (mm)	Magnification	TV Distortion @1"	Filter Size	O.D. x Lens Tube Length (mm)	Weight (g)
<b>ML-MC2518XR-18C</b>	25	1.8-16	17.6mm 1.1"	2.2μm/ 200lp/mm	70-400	0.06-0.31	<0.1%	M35.5 x 0.5	φ38 x 57.2	120
<b>ML-MC3518XR-18C</b>	35	1.8-16			150-600	0.06-0.25		M30.5 x 0.5	φ35 x 49.5	80
<b>ML-MC5020XR-18C</b>	50	2.0-16			180-600	0.06-0.28		M35.5 x 0.5	φ40 x 79.8	180
<b>ML-MC9028XR-18C</b>	90	2.8-16			330-400	0.33-0.44		M34 x 0.5	φ40 x 105.8	220

## FA/Macro Lenses for Robot Vision

### ● ML-MC-G Series

- Compact Design
- Vis/NIR AR Coating
- Vibration Resistance

#### Features

- High resolving power 150lp/mm, 12MP, High resolution 3.5μm/pixel
- Vibration Resistance 15G, Large format 1.1" compatible
- Locking screw method focusing function, fixed aperture 4 types available (Fno 2.8, 4.0, 5.6, 8.0)
- Optimized for WD 400 - 1,000mm



#### Specifications

Model name	Focal Length (mm)	Fno (Selectable)	Image Format Size	Pixel Size / Resolving Power	WD (mm)	Magnification	TV Distortion	Filter Size	O.D. x Lens Tube Length (mm)	Weight (g)
* <b>ML-MC1228-18C-G</b>	12	2.8	17.6mm 1.1"	3.5μm / 150lp/mm	300-1000	0.01-0.04	<2%	M30.5 x 0.5	φ34 x 80	100
* <b>ML-MC1628-18C-G</b>	16	2.8			300-1000	0.02-0.03	<1%	M30.5 x 0.5	φ34 x 53	70
<b>ML-MC2528-18C-G</b>	25	2.8			300-1000	0.02-0.08	<0.2%	M30.5 x 0.5	φ32 x 39.5	65
<b>ML-MC3528-18C-G</b>	35	2.8			300-1000	0.03-0.11	<0.2%	M30.5 x 0.5	φ32 x 49.1	70
<b>ML-MC5028-18C-G</b>	50	2.8			300-1000	0.05-0.17	<0.25%	M30.5 x 0.5	φ32 x 64.3	75
* <b>ML-MC7528-18C-G</b>	75	2.8			400-1000	0.08-0.24	<0.15%	M34 x 0.5	φ38 x 75	125

\*Coming soon

# FA/CCTV Lenses

## FA/CCTV Lenses for ITS

### ● ML-T Series

- Compact Design
- Vis/NIR AR Coating
- Vibration Resistance

#### Features

- High resolving power 150lp/mm, 12MP, High resolution 3.5μm/pixel
- Large format 1.1" compatible
- Optimized for long working distances and harsh environment applications
- Visible & Near-infrared(Day & Night) compatible



#### Specifications

Model name	Focal Length (mm)	Fno	Image Format Size	Pixel Size / Resolving Power	Minimum WD (Ex. ring)	Minimum Closest Magnification	FOV (H x V)	TV Distortion @WD2m	Filter Size	O.D. x Lens Tube Length (mm)	Weight (g)
<b>ML-T0528-18C</b>	5	2.8-16	17.6mm 1.1"	3.5μm / 150lp/mm	0.5m (0.4m)	0.011	106.2° x 89.6°	<2.62%	None	φ40 x 53	60
* <b>ML-T1628-18C</b>	16	2.8-16	18.5mm 1.1"		2m (1m)	0.008	49.5° x 38.0°	<0.31%	M30.5 x 0.5	φ32 x 55.9	113
<b>ML-T2028-18C</b>	20	2.8-16				0.010	38.7° x 29.5°	<0.13%	M30.5 x 0.5	φ32 x 59.2	110
<b>ML-T2528-18C</b>	25	2.8-16				0.012	32.9° x 25°	<0.17%	M30.5 x 0.5	φ32 x 38.6	70
<b>ML-T3528-18C</b>	35	2.8-16				0.017	23.7° x 17.9°	<0.17%	M30.5 x 0.5	φ32 x 46.9	80
<b>ML-T5028-18C</b>	50	2.8-16				0.025	16.6° x 12.4°	<0.15%	M30.5 x 0.5	φ32 x 58	80
<b>ML-T7528-18C</b>	75	2.8-16		0.039		10.5° x 7.9°	<0.17%	M34 x 0.5	φ38 x 64.7	130	

\*Coming soon

## FA/CCTV Lenses for Machine Vision

# ML-U-SR Series

- Compact Design
- Vis/NIR AR Coating

### Features

- High resolving power 150lp/mm, 12MP, High resolution 3.5μm/pixel
- Large Format 1.1" compatible
- Floating mechanism for consistent performance



### Specifications

Model name	Focal Length (mm)	Fno	Image Format Size	Pixel Size / Resolving Power	Minimum Object WD (mm)	Minimum Closest Magnification	FOV (H x V)	TV Distortion @500mm	Filter Size	O.D. x Lens Tube Length (mm)	Weight (g)
<b>ML-U0817SR-18C</b>	8	1.7-16	17.6mm 1.1"	3.5μm / 150lp/mm	100	0.067	86.4° x 69.5°	<1.8%	M55 x 0.75	φ58 x 77	244
<b>ML-U1217SR-18C</b>	12	1.7-16			100	0.11	58.8° x 45.1°	<2.1%	M35.5 x 0.5	φ39.5 x 65.5	200
<b>ML-U1615SR-18C</b>	16	1.5-16			100	0.142	45.1° x 34.7°	<0.8%	M35.5 x 0.5	φ39.5 x 67	182
<b>ML-U2515SR-18C</b>	25	1.5-16			100	0.215	31.3° x 23.6°	<0.05%	M37 x 0.75	φ42 x 67	211
<b>ML-U3518SR-18C</b>	35	1.8-16			195	0.190	18.4° x 14°	<0.1%	M35.5 x 0.5	φ39.5 x 54.5	120
<b>ML-U5022SR-18C</b>	50	2.2-16			300	0.194	12° x 9°	<0.1%	M35.5 x 0.5	φ39.5 x 58.5	140

## FA/CCTV Lenses for Machine Vision

# ML-M-UR Series

# ML-M-HR Series

- Compact Design
- Vis/NIR AR Coating
- Vibration Resistance

### Features

- ML-M-UR : High resolving power 200lp/mm, High resolution 2.2μm/pixel
- ML-M-HR : Resolving power 130lp/mm, Resolution 4.5μm/pixel
- Format size 2/3" compatible



### Specifications

Model name	Focal Length (mm)	Fno	Image Format Size	Pixel Size / Resolving Power	Minimum Object WD (mm)	Minimum Closest Magnification	FOV (H x V)	TV Distortion @500mm	Filter Size	O.D. x Lens Tube Length (mm)	Weight (g)
<b>ML-M0625UR</b>	6	2.5-16	11mm 2/3"	2.2μm / 200lp/mm	100	0.053	75.7° x 62.7°	<2.8%	None	φ29.5 x 50	70
<b>ML-M0822UR</b>	8	2.2-16			100	0.071	59.1° x 45.5°	<1.9%			60
<b>ML-M1218UR</b>	12	1.8-16			150	0.075	39.4° x 30°	<1.2%			60
<b>ML-M1616UR</b>	16	1.6-16			150	0.095	29.2° x 22.4°	<0.5%			50
<b>ML-M2516UR</b>	25	1.6-16			150	0.152	18° x 13°	<0.07%			50
<b>ML-M3520UR</b>	35	2.0-16			200	0.167	12.6° x 9.76°	<0.1%			50
<b>ML-M5025UR</b>	50	2.5-16			300	0.194	7.9° x 5.9°	<0.1%			70
<b>ML-M0818HR</b>	8	1.8-16	11mm 2/3"	4.5μm / 130lp/mm	100	0.071	58.2° x 44.7°	<1.2%	M25.5 x 0.5	φ29.5 x 36	60
<b>ML-M1218HR</b>	12	1.8-16			150	0.071	40.3° x 30.7°	<0.8%			50
<b>ML-M1618HR</b>	16	1.8-16			200	0.079	30.8° x 23.3°	<0.2%			50
<b>ML-M2518HR</b>	25	1.8-16			200	0.113	20.0° x 15.0°	<0.1%			50
<b>ML-M3520HR</b>	35	2.0-16			200	0.160	14.4° x 10.8°	<0.1%			40
<b>ML-M5025HR</b>	50	2.5-16			300	0.160	10.1° x 7.5°	<0.8%			50

# FA/Line Scan Lenses

FA/Line Scan Lenses for Machine Vision

## ● ML-FF Series (Fixed Focus)

- Compact Design
- Vis/NIR AR Coating

### Features

- Resolving Power 130lp/mm, Resolution 4.5μm/pixel
- Full size 35mm format compatible
- Designed for common lens mount
- Connection with ML-TUBE allows flexible magnification adjustment



### Specifications

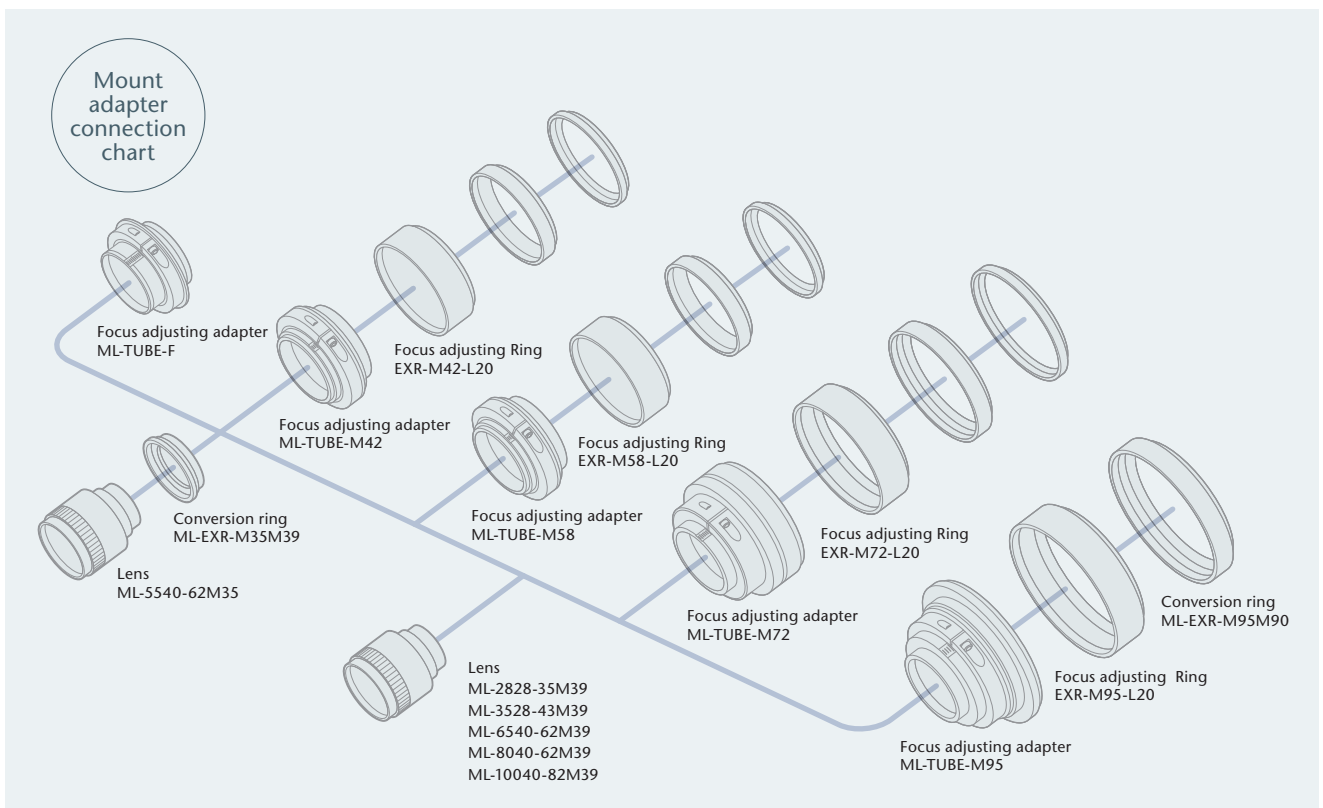
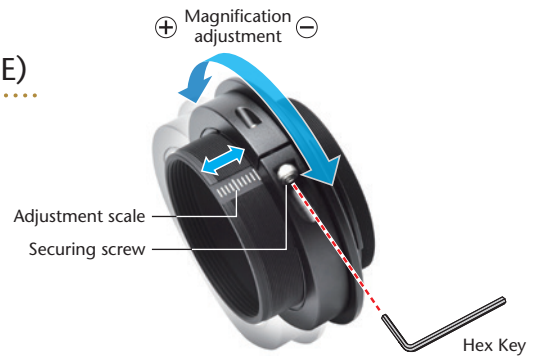
Model name	Focal Length (mm)	Fno	Image Format Size	Pixel Size / Resolving Power	WD (mm)	Magnification	AR Coating	Lens Mount	O.D. x Lens Tube Length (mm)	Weight (g)
<b>ML-2828-35M39</b>	28	2.8-22	35mm	4.5μm / 130lp/mm	∞ - 200	∞ - 0.13	Vis-NIR	M39	φ54 x 69.5	230
<b>ML-3528-43M39</b>	35	2.8-22	43mm		∞ - 1000	∞ - 0.035	Vis	M39	φ45 x 73.8	200
<b>ML-5540-62M35</b>	55	4.0-16	62.5mm		∞ - 216	∞ - 0.3	Vis	M35	φ43 x 38.4	95
<b>ML-6540-62M39</b>	65	4.0-22	62.5mm		∞ - 300	∞ - 0.4	Vis-NIR	M39	φ45 x 39	120
<b>ML-8040-62M39</b>	80	4.0-22	62.5mm		∞ - 1000	∞ - 0.088	Vis-NIR	M39	φ45 x 52.3	200
<b>* ML-10040-82M39</b>	100	4.0-22	82mm		∞ - 300	∞ - 0.4	Vis-NIR	M39	φ55 x 60	230

\*Coming soon

## Mount adapter for ML-FF (ML-TUBE)

### Features

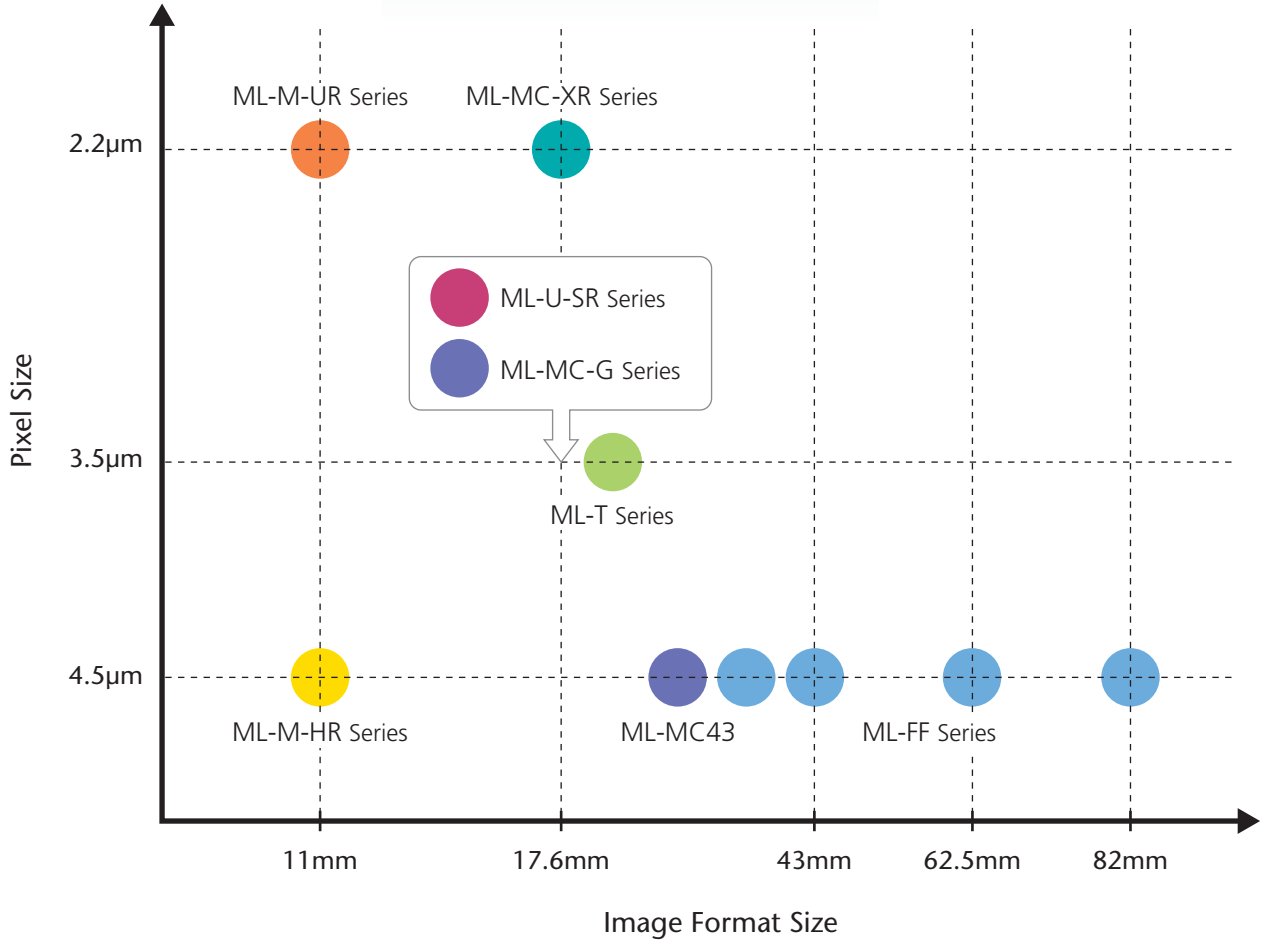
- Selectable Helicoid method / Screw method
- Variable magnification



Some specifications are subject to change

# FA lens products

## Positioning



	FA/Macro Lenses for Machine Vision ML-MC-XR Series			FA/Macro Lenses for Robot Vision ML-MC-G Series	
	FA/CCTV Lenses for Machine Vision ML-U-SR Series			FA/CCTV Lenses for ITS ML-T Series	
	FA/CCTV Lenses for Machine Vision ML-M-UR Series			FA/Line Scan Lenses for Machine Vision ML-FF Series	
	FA/CCTV Lenses for Machine Vision ML-M-HR Series			FA/Macro Lenses for Machine Vision ML-MC43-HR-22C	

## Model Name Description

FA/CCTV Lens

ML-



**Sensor Size**   **Focal Length**   **Fno**   **Pixel Size**   **Sensor Diagonal Size**

M = Up to 2/3"  
(including 1/1.8" 1/2" 1/3")  
U = Larger than 1"  
(including 1.1")

UR = 2.2µm  
SR = 3.5µm  
HR = 4.5µm

16C = 16mm (1")  
C mount  
18C = 18mm (1.1")  
C mount

FA/Macro Lens

ML- MC



**Focal Length**   **Fno**   **Pixel Size**   **Sensor Diagonal Size**   **Specification**

XR = 2.2µm  
HR = 4.5µm

18C = 18mm (1.1")  
C mount  
22C = 22mm (4/3")  
C mount

G = Vibration Resistance

FA/Line Lens

ML-



**Focal Length**   **Fno**   **Sensor Size**   **Mount**



Vibration Resistant FA/CCTV Lenses

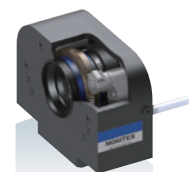
ML-T18C-G Series



- High resolving power 150lp/mm, 12MP  
High resolution 3.5µm/pixel
- Vibration resistance up to 15G

Auto-Iris/Focus motorized Lenses

ML-T18C-M Series



- High resolving power 150lp/mm, 12MP  
High resolution 3.5µm/pixel
- Visible & Near-infrared(Day & Night) compatible



**Lens Selector**  
You can find the best lens to meet your requirement!



**Illumination Selector**  
You can find the best item to meet your requirement!

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