

TAMRON

Focus on the Future



5MP – M112FM SERIES

PIXEL PITCH
3.45 μm

1/1.2"
IMAGERS

TAMRON'S VERSATILE LENS SERIES



FOCUS ON THE FUTURE

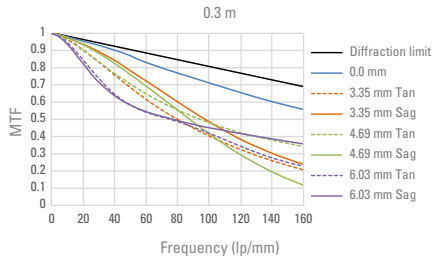
With 70 years of expertise, Tamron stands as a renowned leader in optical technology. Our commitment to innovation and precision ensures that our products deliver reliable, high-performance lenses designed to meet the specific demands of machine vision applications. Crafted with meticulous attention to detail, our lenses guarantee superior performance and reliability across diverse industrial applications.

HIGHLIGHTS OF THE M112FM SERIES

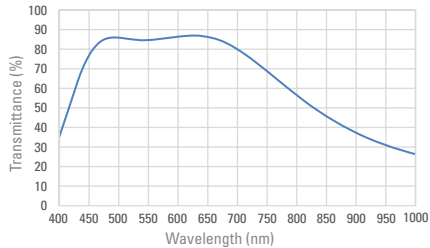


- Whole series optically designed for both 1/1.2" (5.86 μm) and 2/3" (3.45 μm) sensors
- High resolution and contrast power with low distortion
- From 6 mm to 75 mm whole range with 8 different focal lengths for a large variety of applications
- Extreme compact design with only 29mm lens barrel diameter
- High transmission rates even out of visible light range
- Very large image circles covering up to 1.1" in some focal lengths
- M112FM06 (6 mm) delivered with detachable filter mount adapter, changing the max. diameter from 60 mm to 38 mm for extremely small setup size even for 6 mm
- All lenses delivered with 2 types of screw sets for extended flexibility and optimal compactness

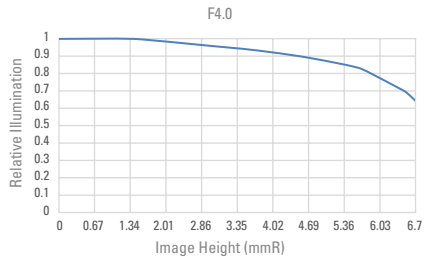
MTF Curves



Transmittance of Wavelengths



Relative Illumination on Image Circle



This table shows the shooting distance and coverage by using different extension rings

| Size of Extension Ring | M112FM06 - 6 mm - F/2.8 | | | |
|------------------------|----------------------------------|----------------------------------|-----------------------------|----------------------------------|
| | Imager 1/1.2" 10.72 x 8.04 mm | | Imager 2/3" 8.8 x 6.6 mm | |
| | WD | Coverage | WD | Coverage |
| W/O | 1000.0 100.0 | 1946.5 x 1423.3 213.6 x 155.8 | 1000.0 100.0 | 1569.8 x 1151.8 172.0 x 126.0 |
| 0.5 | 60.9 32.9 | 138.2 x 100.7 84.3 x 61.3 | 60.9 32.9 | 111.2 x 81.4 67.7 x 49.6 |
| 1 | 25.2 16.5 | 69.6 x 50.6 52.8 x 38.3 | 25.2 16.5 | 55.8 x 40.8 42.3 x 30.9 |
| 1.5 | 13.3 9.1 | 46.7 x 33.8 38.5 x 27.8 | 13.3 9.1 | 37.3 x 27.3 30.8 x 22.5 |
| 5 | - | - | - | - |
| 10 | - | - | - | - |
| 15 | - | - | - | - |
| 20 | - | - | - | - |
| 25 | - | - | - | - |
| 30 | - | - | - | - |
| 35 | - | - | - | - |
| 40 | - | - | - | - |

Upper column: Data at the infinity focusing position.
(In W/O, data at 1.0m focusing position)

Lower column: Data at the nearest focusing position

Taking distance: From barrel top to the object

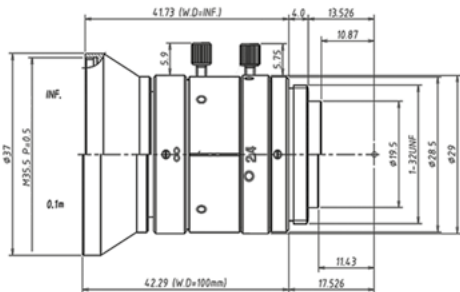
M112FM08

ALLROUNDER LINE

FITS ALMOST ALL APPLICATIONS

PIXEL PITCH
3.45 μm

1/1.2"
IMAGERS



- Focal length 8 mm
- Aperture F/2.4 ~ F/16
- Filter size M35.5 P=0.5 mm
- Exit Pupil Position -47.8 mm
- TV Distortion -1.47 %
- M.O.D. 100 mm
- Max. Diameter 37.0 mm
- Weight 86 g
- Operating Temp. -20°C ~ +60°C

Angle of View

1/1.2"

4:3

70.3° x 54.9°

16:9

75.3° x 45.6°

2/3"

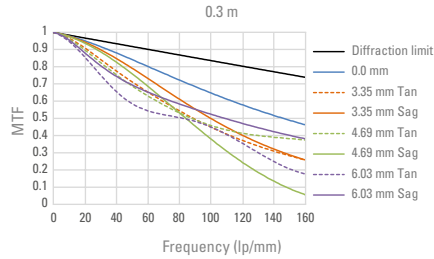
4:3

59.5° x 45.8°

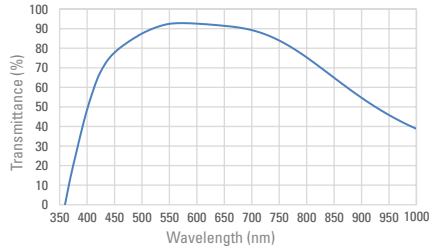
16:9

64.0° x 37.8°

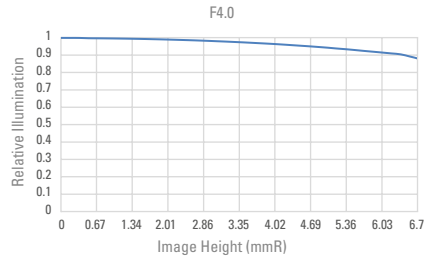
MTF Curves



Transmittance of Wavelengths



Relative Illumination on Image Circle



This table shows the shooting distance and coverage by using different extension rings

| Size of Extension Ring | M112FM08 - 8 mm - F/2.4 | | | |
|------------------------|----------------------------------|-----------------|-----------------------------|----------------|
| | Imager 1/1.2" 10.72 x 8.04 mm | | Imager 2/3" 8.8 x 6.6 mm | |
| | WD | Coverage | WD | Coverage |
| W/O | 1000.0 | 1428.1 x 1052.4 | 1000.0 | 1157.9 x 855.7 |
| | 100.0 | 160.5 x 118.0 | 100.0 | 129.9 x 95.9 |
| 0.5 | 114.7 | 181.2 x 133.3 | 114.7 | 146.7 x 108.3 |
| | 46.7 | 85.4 x 62.7 | 46.7 | 69.0 x 50.9 |
| 1 | 49.9 | 89.9 x 66.0 | 49.9 | 72.7 x 53.6 |
| | 27.3 | 58.0 x 42.5 | 27.3 | 46.8 x 34.5 |
| 1.5 | 28.9 | 60.4 x 44.2 | 28.9 | 48.7 x 35.9 |
| | 17.4 | 44.1 x 32.3 | 17.4 | 35.5 x 26.2 |
| 5 | - | - | - | - |
| 10 | - | - | - | - |
| 15 | - | - | - | - |
| 20 | - | - | - | - |
| 25 | - | - | - | - |
| 30 | - | - | - | - |
| 35 | - | - | - | - |
| 40 | - | - | - | - |

Upper column: Data at the infinity focusing position.
(In W/O, data at 1.0m focusing position)

Lower column: Data at the nearest focusing position

Taking distance: From barrel top to the object

1/1.2" IMAGERS

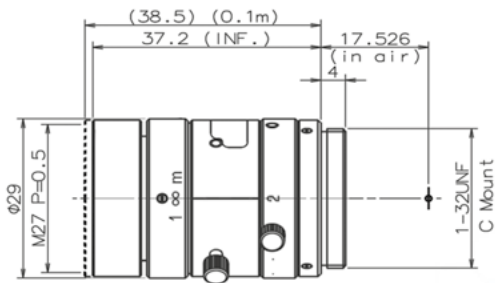
M112FM12

ALLROUNDER LINE

FITS ALMOST ALL APPLICATIONS

PIXEL PITCH
3.45 μm

1/1.2"
IMAGERS



- Focal length 12 mm
- Aperture F/2.0 ~ F/16
- Filter size M27 P=0.5 mm
- Exit Pupil Position -35.5 mm
- TV Distortion -0.97 %
- M.O.D. 100 mm
- Max. Diameter 29.0 mm
- Weight 64 g
- Operating Temp. -20°C ~ +60°C

Angle of View

1/1.2"

4:3

49.2° x 37.6°

16:9

53.2° x 30.6°

2/3"

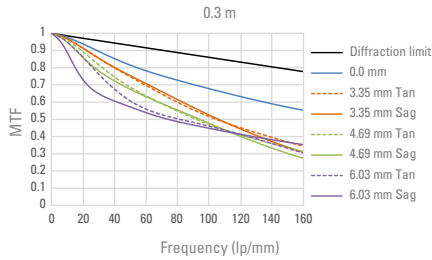
4:3

40.9° x 31.1°

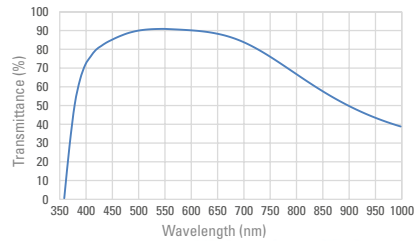
16:9

44.4° x 25.5°

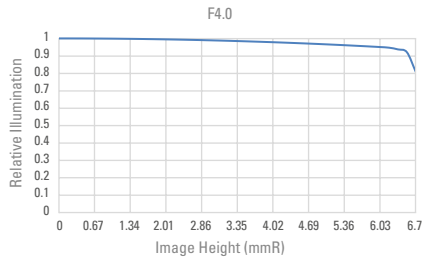
MTF Curves



Transmittance of Wavelengths



Relative Illumination on Image Circle



This table shows the shooting distance and coverage by using different extension rings

| Size of Extension Ring | M112FM12 - 12 mm - F/2.0 | | | |
|------------------------|----------------------------------|---------------|-----------------------------|---------------|
| | Imager 1/1.2" 10.72 x 8.04 mm | | Imager 2/3" 8.8 x 6.6 mm | |
| | WD | Coverage | WD | Coverage |
| W/O | 1000.0 | 927.3 x 688.7 | 1000.0 | 755.8 x 562.7 |
| | 100.0 | 103.2 x 76.5 | 100.0 | 84.0 x 62.5 |
| 0.5 | 271.4 | 260.2 x 193.1 | 271.4 | 212.0 x 157.8 |
| | 68.3 | 74.1 x 54.9 | 68.3 | 60.3 x 44.8 |
| 1 | 129.3 | 130.0 x 96.5 | 129.3 | 105.9 x 78.8 |
| | 50.5 | 57.8 x 42.8 | 50.5 | 47.0 x 34.9 |
| 1.5 | 82.3 | 87.0 x 64.5 | 82.3 | 70.8 x 52.6 |
| | 39.2 | 47.4 x 35.1 | 39.2 | 38.6 x 28.7 |
| 5 | 16.3 | 26.4 x 19.5 | 16.3 | 21.4 x 15.9 |
| | 10.6 | 21.2 x 15.6 | 10.6 | 17.2 x 12.7 |
| 10 | 2.2 | 13.4 x 9.9 | 2.2 | 10.8 x 8.0 |
| | 0.6 | 11.9 x 8.8 | 0.6 | 9.6 x 7.1 |
| 15 | — | — | — | — |
| 20 | — | — | — | — |
| 25 | — | — | — | — |
| 30 | — | — | — | — |
| 35 | — | — | — | — |
| 40 | — | — | — | — |

Upper column: Data at the infinity focusing position.
(In W/O, data at 1.0m focusing position)

Lower column: Data at the nearest focusing position

Taking distance: From barrel top to the object

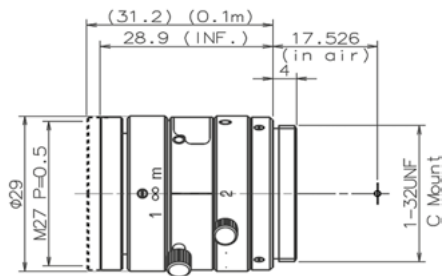
M112FM16

ALLROUNDER LINE

FITS ALMOST ALL APPLICATIONS

PIXEL PITCH
3.45 μ m

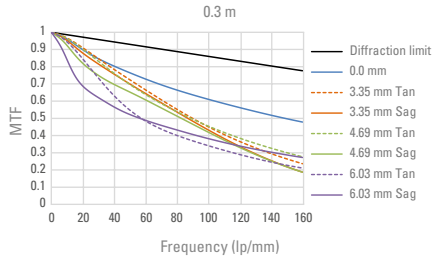
1/1.2"
IMAGERS



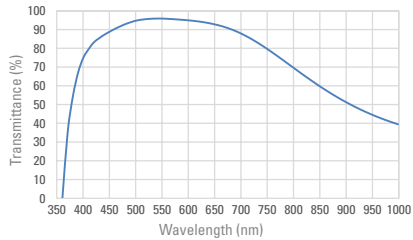
- Focal length 16 mm
- Aperture F/2.0 ~ F/16
- Filter size M27 P=0.5 mm
- Exit Pupil Position -35.9 mm
- TV Distortion -0.56 %
- M.O.D. 100 mm
- Max. Diameter 29.0 mm
- Weight 51 g
- Operating Temp. -20°C ~ +60°C

| | | | |
|---------------|--------|------|---------------|
| Angle of View | 1/1.2" | 4:3 | 37.4° x 28.4° |
| | | 16:9 | 40.5° x 22.3° |
| | 2/3" | 4:3 | 31.0° x 23.4° |
| | | 16:9 | 33.7° x 19.2° |

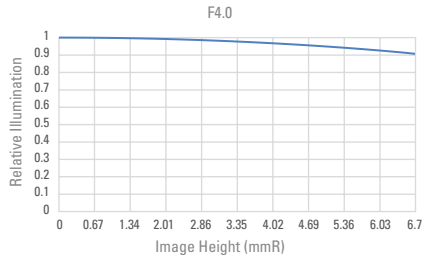
MTF Curves



Transmittance of Wavelengths



Relative Illumination on Image Circle



This table shows the shooting distance and coverage by using different extension rings

| Size of Extension Ring | M112FM16 - 16 mm - F/2.0 | | | |
|------------------------|----------------------------------|---------------|-----------------------------|---------------|
| | Imager 1/1.2" 10.72 x 8.04 mm | | Imager 2/3" 8.8 x 6.6 mm | |
| | WD | Coverage | WD | Coverage |
| W/O | 1000.0 | 686.5 x 512.5 | 1000.0 | 561.7 x 419.7 |
| | 100.0 | 76.9 x 57.2 | 100.0 | 62.7 x 46.7 |
| 0.5 | 493.9 | 343.7 x 256.5 | 493.9 | 281.1 x 210.0 |
| | 79.6 | 63.0 x 46.8 | 79.6 | 51.4 x 38.3 |
| 1 | 240.7 | 172.2 x 128.4 | 240.7 | 140.8 x 105.1 |
| | 65.5 | 53.4 x 39.7 | 65.5 | 43.5 x 32.4 |
| 1.5 | 156.1 | 114.9 x 85.6 | 156.1 | 93.8 x 70.0 |
| | 55.1 | 46.4 x 34.4 | 55.1 | 37.8 x 28.1 |
| 5 | 38.3 | 34.9 x 25.9 | 38.3 | 28.4 x 21.2 |
| | 22.7 | 24.2 x 17.9 | 22.7 | 19.7 x 14.6 |
| 10 | 13.1 | 17.7 x 13.1 | 13.1 | 14.3 x 10.7 |
| | 8.5 | 14.5 x 10.7 | 8.5 | 11.7 x 8.7 |
| 15 | 4.7 | 11.8 x 8.7 | 4.7 | 9.6 x 7.1 |
| | — | — | — | — |
| 20 | — | — | — | — |
| 25 | — | — | — | — |
| 30 | — | — | — | — |
| 35 | — | — | — | — |
| 40 | — | — | — | — |

Upper column: Data at the infinity focusing position.
(In W/O, data at 1.0m focusing position)

Lower column: Data at the nearest focusing position

Taking distance: From barrel top to the object

1/1.2" IMAGERS

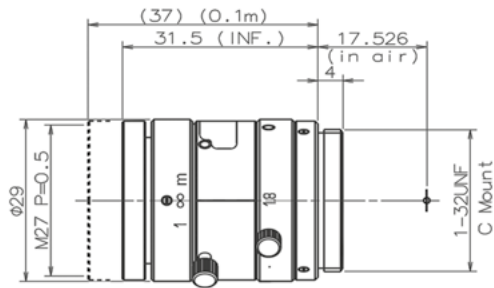
M112FM25

ALLROUNDER LINE

FITS ALMOST ALL APPLICATIONS

PIXEL PITCH
3.45 μm

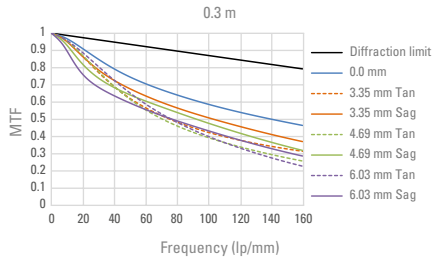
1/1.2"
IMAGERS



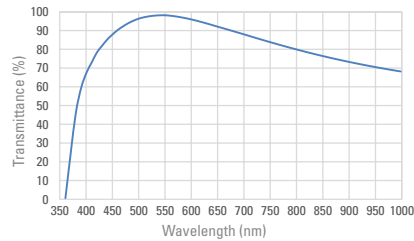
- Focal length 25 mm
- Aperture F/1.8 ~ F/16
- Filter size M27 P=0.5 mm
- Exit Pupil Position -36.2 m
- TV Distortion -0.09 %
- M.O.D. 100 mm
- Max. Diameter 29.0 mm
- Weight 54 g
- Operating Temp. -20°C ~ +60°C

| | | | |
|---------------|--------|------|---------------|
| Angle of View | 1/1.2" | 4:3 | 24.1° x 18.2° |
| | | 16:9 | 26.2° x 15.0° |
| Angle of View | 2/3" | 4:3 | 19.9° x 15.0° |
| | | 16:9 | 21.7° x 12.3° |

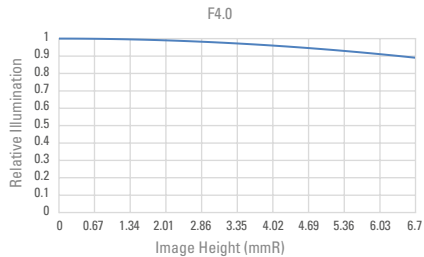
MTF Curves



Transmittance of Wavelengths



Relative Illumination on Image Circle



This table shows the shooting distance and coverage by using different extension rings

| Size of Extension Ring | M112FM25 - 25 mm - F/1.8 | | | |
|------------------------|----------------------------------|----------------------------|-----------------------------|----------------------------|
| | Imager 1/1.2" 10.72 x 8.04 mm | | Imager 2/3" 8.8 x 6.6 mm | |
| | WD | Coverage | WD | Coverage |
| W/O | 1000.0 — | 431.5 x 323.7 — | 1000.0 — | 354.3 x 265.8 — |
| 0.5 | 1234.2 — | 535.5 x 401.8 — | 1234.2 — | 439.7 x 329.9 — |
| 1 | 614.2 — | 266.5 x 199.9 — | 614.2 — | 218.7 x 164.1 — |
| 1.5 | 405.7 — | 177.3 x 132.9 — | 405.7 — | 145.5 x 109.1 — |
| 5 | 116.0 — | 53.3 x 39.8 — | 116.0 — | 43.6 x 32.7 — |
| 10 | 54.8 32.2 | 26.9 x 20.1 17.1 x 12.8 | 54.8 32.2 | 22.0 x 16.5 14.0 x 10.5 |
| 15 | 34.3 22.7 | 18.0 x 13.5 13.0 x 9.7 | 34.3 22.7 | 14.7 x 11.0 10.7 x 8.0 |
| 20 | 24.0 — | 13.5 x 10.1 — | 24.0 — | 11.1 x 8.3 — |
| 25 | — | — | — | — |
| 30 | — | — | — | — |
| 35 | — | — | — | — |
| 40 | — | — | — | — |

Upper column: Data at the infinity focusing position.
(In W/O, data at 1.0m focusing position)

Lower column: Data at the nearest focusing position

Taking distance: From barrel top to the object

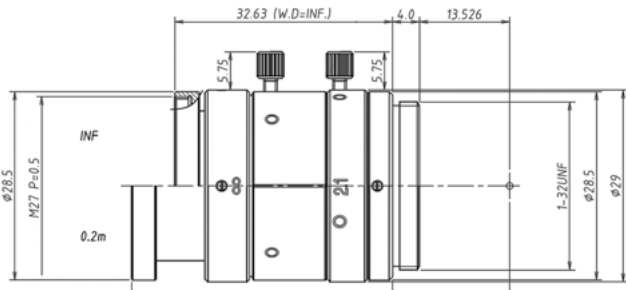
M112FM35

ALLROUNDER LINE

FITS ALMOST ALL APPLICATIONS

PIXEL PITCH
3.45 μm

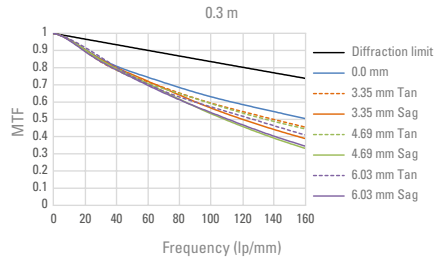
1/1.2"
IMAGERS



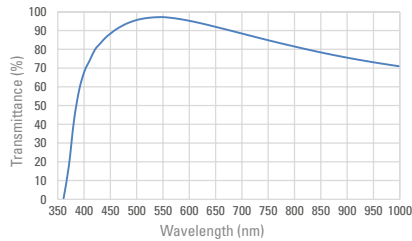
- Focal length 35 mm
- Aperture F/2.1 ~ F/16
- Filter size M27 P=0.5 mm
- Exit Pupil Position -29.4 m
- TV Distortion 0.05 %
- M.O.D. 200 mm
- Max. Diameter 29.0 mm
- Weight 57 g
- Operating Temp. -20°C ~ +60°C

| | | | |
|---------------|--------|------|---------------|
| Angle of View | 1/1.2" | 4:3 | 17.3° x 13.1° |
| | | 16:9 | 18.8° x 10.7° |
| | 2/3" | 4:3 | 14.3° x 10.7° |
| | | 16:9 | 15.5° x 8.8° |

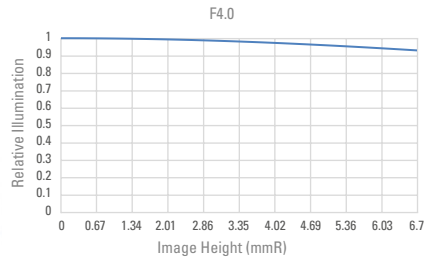
MTF Curves



Transmittance of Wavelengths



Relative Illumination on Image Circle



This table shows the shooting distance and coverage by using different extension rings

| Size of Extension Ring | M112FM35 - 35 mm - F/2.1 | | | |
|------------------------|----------------------------------|---------------|-----------------------------|---------------|
| | Imager 1/1.2" 10.72 x 8.04 mm | | Imager 2/3" 8.8 x 6.6 mm | |
| | WD | Coverage | WD | Coverage |
| W/O | 1000.0 | 301.5 x 226.3 | 1000.0 | 247.7 x 185.9 |
| | 200.0 | 57.6 x 43.2 | 200.0 | 47.3 x 35.4 |
| 0.5 | 2462.3 | 747.2 x 561.1 | 2462.3 | 614.0 x 460.9 |
| | 186.5 | 53.5 x 40.1 | 186.5 | 43.9 x 32.9 |
| 1 | 1242.2 | 375.3 x 281.8 | 1242.2 | 308.3 x 231.4 |
| | 174.8 | 49.9 x 37.4 | 174.8 | 41.0 x 30.7 |
| 1.5 | 827.8 | 249.0 x 46.8 | 827.8 | 204.5 x 153.5 |
| | 164.6 | 186.9 x 35.1 | 164.6 | 38.4 x 28.8 |
| 5 | 254.6 | 74.3 x 55.7 | 254.6 | 61.0 x 45.7 |
| | 118.3 | 32.6 x 24.4 | 118.3 | 26.7 x 20.0 |
| 10 | 133.6 | 37.3 x 27.9 | 133.6 | 30.6 x 22.9 |
| | 86.2 | 22.7 x 17.0 | 86.2 | 18.7 x 14.0 |
| 15 | 93.4 | 24.9 x 18.7 | 93.4 | 20.5 x 15.3 |
| | 69.1 | 17.5 x 13.1 | 69.1 | 14.3 x 10.7 |
| 20 | 73.2 | 18.7 x 14.0 | 73.2 | 15.4 x 11.5 |
| | 58.5 | 14.2 x 10.6 | 58.5 | 11.6 x 8.7 |
| 25 | 61.1 | 15.0 x 11.3 | 61.1 | 12.3 x 9.2 |
| | 51.2 | 11.9 x 8.9 | 51.2 | 9.8 x 7.3 |
| 30 | 53.0 | 12.5 x 9.4 | 53.0 | 10.3 x 7.7 |
| | 45.9 | 10.3 x 7.7 | 45.9 | 8.5 x 6.3 |
| 35 | 47.2 | 10.7 x 8.0 | 47.2 | 8.8 x 6.6 |
| | 41.8 | 9.1 x 6.8 | 41.8 | 7.4 x 5.6 |
| 40 | 42.9 | 9.4 x 7.0 | 42.9 | 7.7 x 5.8 |
| | 38.6 | 8.1 x 6.1 | 38.6 | 6.6 x 5.0 |

Upper column: Data at the infinity focusing position.
(In W/O, data at 1.0m focusing position)

Lower column: Data at the nearest focusing position

Taking distance: From barrel top to the object

1/1.2" IMAGERS

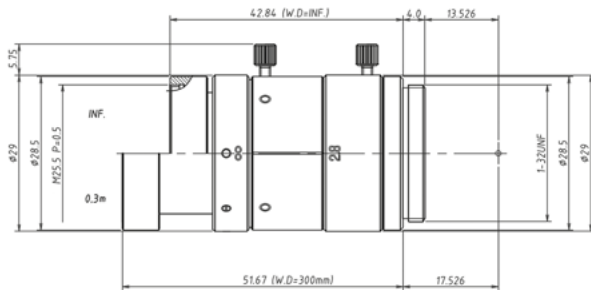
M112FM50

ALLROUNDER LINE

FITS ALMOST ALL APPLICATIONS

PIXEL PITCH
3.45 μm

1/1.2"
IMAGERS



- Focal length 50 mm
- Aperture F/2.8 ~ F/16
- Filter size M27 P=0.5 mm
- Exit Pupil Position -44.2 mm
- TV Distortion 0.08 %
- M.O.D. 300 mm
- Max. Diameter 29.0 mm
- Weight 70 g
- Operating Temp. -20°C ~ +60°C

**Angle
of View**

1/1.2"

4:3

12.2° x 9.2°

16:9

13.2° x 7.5°

2/3"

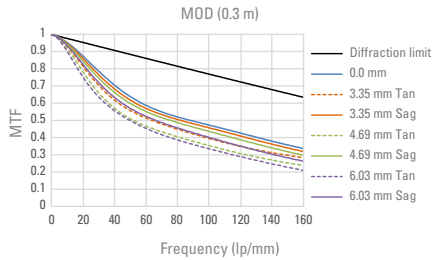
4:3

10.0° x 7.5°

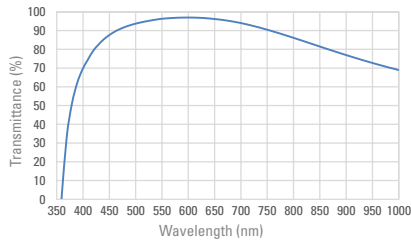
16:9

10.9° x 6.16°

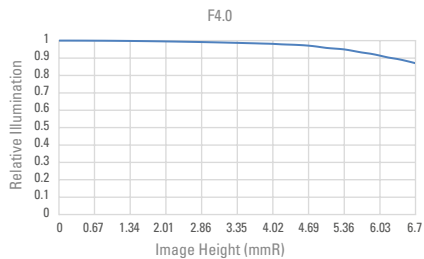
MTF Curves



Transmittance of Wavelengths



Relative Illumination on Image Circle



This table shows the shooting distance and coverage by using different extension rings

| Size of Extension Ring | M112FM50 - 50 mm - F/2.8 | | | |
|------------------------|-------------------------------|----------------|--------------------------|---------------|
| | Imager 1/1.2" 10.72 x 8.04 mm | | Imager 2/3" 8.8 x 6.6 mm | |
| | WD | Coverage | WD | Coverage |
| W/O | 1000.0 | 209.5 x 157.3 | 1000.0 | 172.1 x 129.2 |
| | 300.0 | 60.2 x 45.2 | 300.0 | 49.4 x 37.1 |
| 0.5 | 5244.4 | 1113.5 x 836.7 | 5244.4 | 915.3 x 687.4 |
| | 285.0 | 57.0 x 42.8 | 285.0 | 46.8 x 35.1 |
| 1 | 2575.7 | 545.0 x 409.5 | 2575.7 | 448.0 x 336.4 |
| | 271.5 | 54.1 x 40.6 | 271.5 | 44.4 x 33.3 |
| 1.5 | 1703.3 | 359.2 x 269.9 | 1703.3 | 295.3 x 221.7 |
| | 259.3 | 51.5 x 38.7 | 259.3 | 42.3 x 31.7 |
| 5 | 517.7 | 106.7 x 80.1 | 517.7 | 87.6 x 65.7 |
| | 198.6 | 38.6 x 28.9 | 198.6 | 31.6 x 23.7 |
| 10 | 267.8 | 53.4 x 40.0 | 267.8 | 43.8 x 32.8 |
| | 151.1 | 28.4 x 21.3 | 151.1 | 23.3 x 17.5 |
| 15 | 184.9 | 35.6 x 26.7 | 184.9 | 29.2 x 21.9 |
| | 123.5 | 22.5 x 16.8 | 123.5 | 18.4 x 13.8 |
| 20 | 143.5 | 26.8 x 20.1 | 143.5 | 22.0 x 16.5 |
| | 105.5 | 18.6 x 13.9 | 105.5 | 15.3 x 11.4 |
| 25 | 118.7 | 21.4 x 16.1 | 118.7 | 17.6 x 13.2 |
| | 92.7 | 15.8 x 11.9 | 92.7 | 13.0 x 9.7 |
| 30 | 102.2 | 17.9 x 13.4 | 102.2 | 14.7 x 11.0 |
| | 83.2 | 13.8 x 10.3 | 83.2 | 11.3 x 8.5 |
| 35 | - | - | - | - |
| 40 | - | - | - | - |

Upper column: Data at the infinity focusing position.
(In W/O, data at 1.0m focusing position)

Lower column: Data at the nearest focusing position

Taking distance: From barrel top to the object

PIXEL PITCH 3.45 μ m

M112FM75

ALLROUNDER LINE

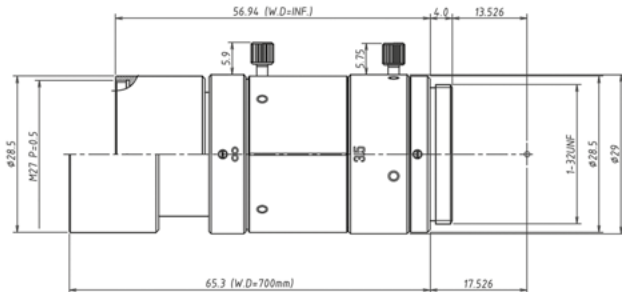
FITS ALMOST ALL APPLICATIONS

PIXEL PITCH
3.45 μ m

1/1.2"
IMAGERS

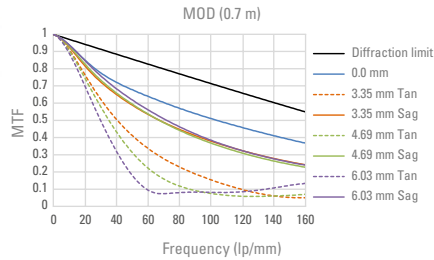


- Focal length 75 mm
- Aperture F/3.5 ~ F/16
- Filter size M27 P=0.5 mm
- Exit Pupil Position -40.8 mm
- TV Distortion 0.03 %
- M.O.D. 700 mm
- Max. Diameter 29 mm
- Weight 81 g
- Operating Temp. -20°C ~ +60°C

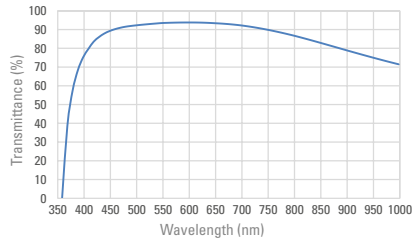


| | | | |
|---------------|--------|------|-------------|
| Angle of View | 1/1.2" | 4:3 | 8.1° x 6.1° |
| | | 16:9 | 8.9° x 5.0° |
| | 2/3" | 4:3 | 6.7° x 5.0° |
| | | 16:9 | 7.3° x 4.1° |

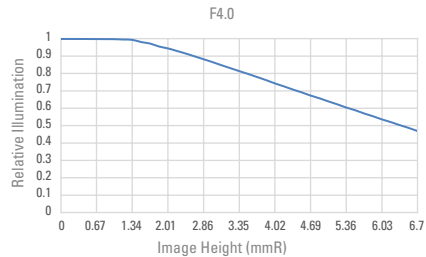
MTF Curves



Transmittance of Wavelengths



Relative Illumination on Image Circle



This table shows the shooting distance and coverage by using different extension rings

| Size of Extension Ring | M112FM75 - 75 mm - F/3.5 | | | |
|------------------------|---------------------------------|--------------------------------|----------------------------|--------------------------------|
| | Imager 1/1.2" 10.72 x 8.04mm | | Imager 2/3" 8.8 x 6.6mm | |
| | WD | Coverage | WD | Coverage |
| W/O | 1000.0 700.0 | 139.1 x 104.4 48.2 x 36.2 | 1000.0 700.0 | 114.2 x 85.7 79.2 x 59.4 |
| 0.5 | 12807.3 661.7 | 1816.6 x 1364.7 90.9 x 68.2 | 12807.3 661.7 | 1493.1 x 1121.0 74.7 x 56.0 |
| 1 | 6007.9 627.2 | 850.6 x 638.9 86.0 x 64.5 | 6007.9 627.2 | 699.0 x 524.8 70.6 x 53.0 |
| 1.5 | 3840.2 595.5 | 543.0 x 407.8 81.5 x 61.2 | 3840.2 595.5 | 446.2 x 335.0 67.0 x 50.2 |
| 5 | 1151.2 445.3 | 160.6 x 120.6 60.1 x 45.1 | 1151.2 445.3 | 131.9 x 99.0 49.4 x 37.0 |
| 10 | 585.8 330.5 | 80.2 x 60.1 43.8 x 32.8 | 585.8 330.5 | 65.8 x 49.4 35.9 x 26.9 |
| 15 | 398.4 264.9 | 53.5 x 40.1 34.4 x 25.8 | 398.4 264.9 | 43.9 x 32.9 28.2 x 21.2 |
| 20 | 304.9 222.5 | 40.1 x 30.1 28.3 x 21.2 | 304.9 222.5 | 32.9 x 24.7 23.3 x 17.4 |
| 25 | 248.9 192.8 | 32.1 x 24.1 24.1 x 18.1 | 248.9 192.8 | 26.4 x 19.8 19.8 x 14.8 |
| 30 | 211.5 170.9 | 26.8 x 20.1 21.0 x 15.7 | 211.5 170.9 | 22.0 x 16.5 17.2 x 12.9 |
| 35 | 184.8 154.0 | 22.9 x 17.2 18.5 x 13.9 | 184.8 154.0 | 18.8 x 14.1 15.2 x 11.4 |
| 40 | 164.8 140.6 | 20.1 x 15.1 16.6 x 12.5 | 164.8 140.6 | 16.5 x 12.4 13.6 x 10.2 |

Upper column: Data at the infinity focusing position.
(In W/O, data at 1.0m focusing position)

Lower column: Data at the nearest focusing position

Taking distance: From barrel top to the object

EXPLANATION

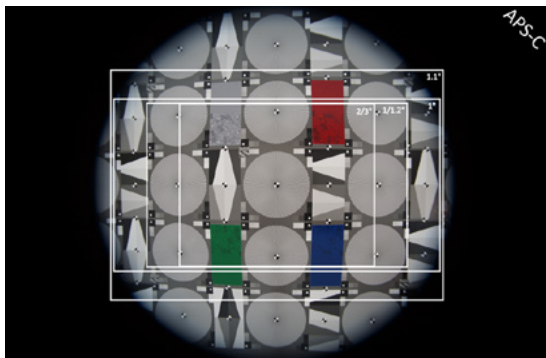
- 1 Model Number, focal length
- 2 Sensor type, area
- 3 Object distance from the tip of the mechanical end at infinity focus
- 4 Size of the extension ring in mm
- 5 Object distance from the tip of the mechanical end at MOD
- 6 Data at infinity focusing position
- 7 Data at the minimum focusing position

In this case, at object distance of 49.8 mm the field coverage will be approximately 55.4 mm(H) x 40.8 mm(V) at MOD. The data is calculated figure, not based on real measurements.

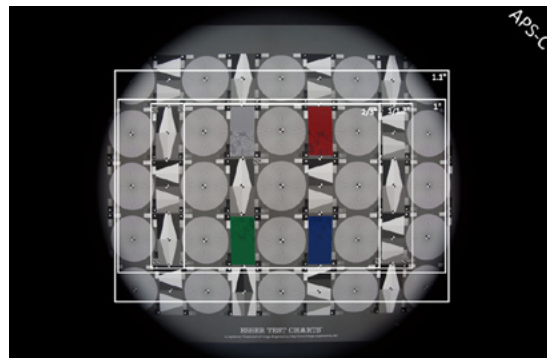
1. Please use the data shown here for your reference only, it is not the actual figure.
2. TAMRON will not be responsible for any trouble caused using this figure.
3. This data is a calculated figure, not based on real measurements.
4. Please note that tolerances are not taken into consideration within this calculation.
5. There might be small differences between each piece.
6. There might be some loss in image quality by applying an extension ring.
7. TAMRON does not guarantee the original image performance while using any extension rings.
8. This data is based on all sources available as of June 26, 2017.
9. This data is subject to change without notice.
10. All units are given in mm.

| Size of Extension Ring | 1 M112FM75 - 75 mm - F/3.5 | | | |
|------------------------|---|--|------------------------------------|--------------------------------|
| | 2 Imager 1/1.2" 10.72 x 8.04 mm | | Imager 2/3" 8.8 x 6.6 mm | |
| | WD | Coverage | WD | Coverage |
| W/O | 1000.0 700.0 | 139.1 x 104.4 48.2 x 36.2 | 1000.0 700.0 | 114.2 x 85.7 79.2 x 59.4 |
| 4 0.5 | 3 12807.3 5 661.7 | 6 1816.6 x 1364.7 7 90.9 x 68.2 | 12807.3 661.7 | 1493.1 x 1121.0 74.7 x 56.0 |
| 1 | 6007.9 627.2 | 850.6 x 638.9 86.0 x 64.5 | 6007.9 627.2 | 699.0 x 524.8 70.6 x 53.0 |
| 1.5 | 3840.2 595.5 | 543.0 x 407.8 81.5 x 61.2 | 3840.2 595.5 | 446.2 x 335.0 67.0 x 50.2 |
| 5 | 1151.2 445.3 | 160.6 x 120.6 60.1 x 45.1 | 1151.2 445.3 | 131.9 x 99.0 49.4 x 37.0 |
| 10 | 585.8 330.5 | 80.2 x 60.1 43.8 x 32.8 | 585.8 330.5 | 65.8 x 49.4 35.9 x 26.9 |

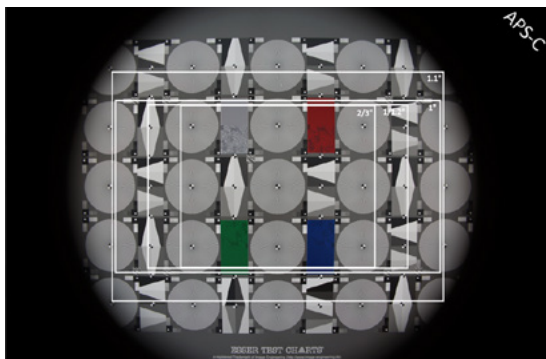
IMAGE CIRCLE



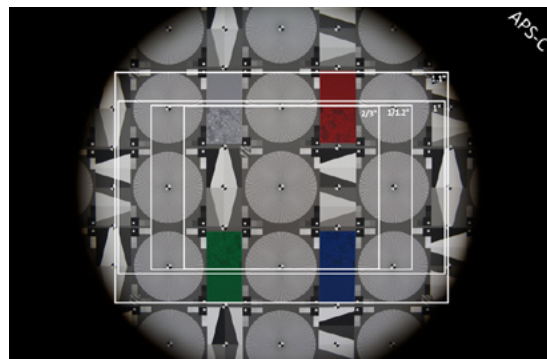
M112FM06 110 mm, F/4.0



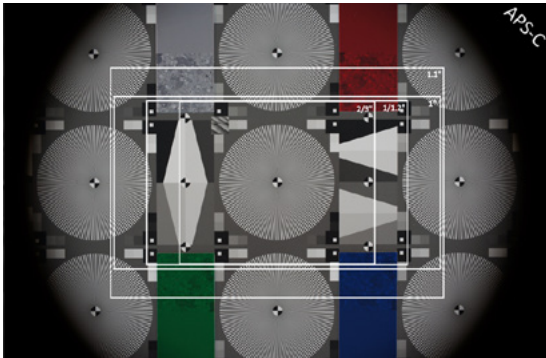
M112FM08 215 mm, F/4.0



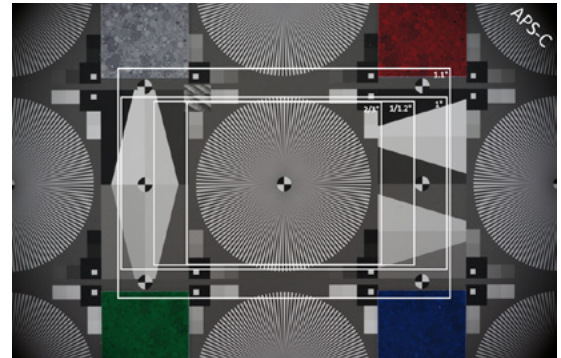
M112FM12 295 mm, F/4.0



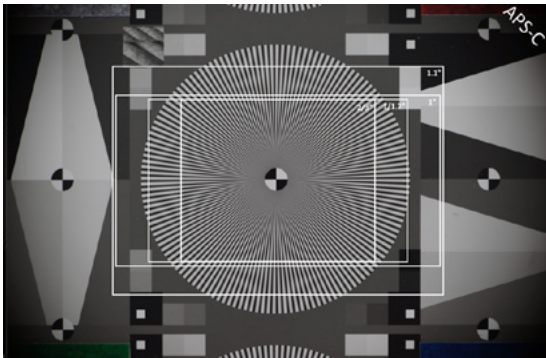
M112FM16 305 mm, F/4.0



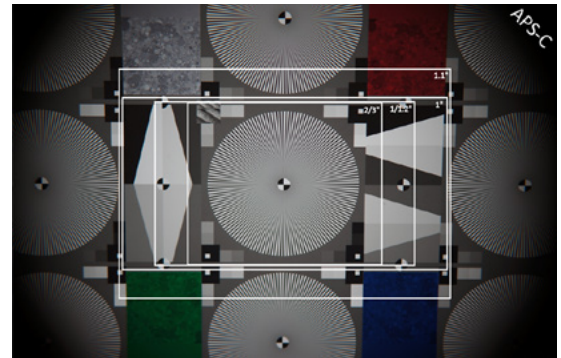
M112FM25 300 mm, F/4.0



M112FM35 300 mm, F/4.0



M112FM50 300 mm, F/4.0



M112FM75 750 mm, F/3.5

TAMRON

Focus on the Future

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