

Fixed-Focal Lenses for Machine Vision use: Full 6-Mega-pixel Resolution for 1/1.7" Imagers in a Compact Size of $\phi 29\text{mm}$

- 1/1.7" 6 mm F/2.4 (Model : M117FM06) ■ 1/1.7" 8mm F/2.4 (Model : M117FM08)
- 1/1.7" 12mm F/2.4 (Model : M117FM12) ■ 1/1.7" 16mm F/2.4 (Model : M117FM16)
- 1/1.7" 25mm F/2.4 (Model : M117FM25) ■ 1/1.7" 35mm F/2.4 (Model : M117FM35)
- 1/1.7" 50mm F/2.8 (Model : M117FM50)

NEW



For

IMX537 1/1.8" 5mega

IMX547 1/1.8" 5mega

IMX567 1/1.8" 5mega

2.74 μm

For

IMX178 1/1.8" 6mega

2.4 μm

Main Features

- > **Unrivalled High Contrast and High Resolution in the Industry**

 - The new lenses are compatible with 1/1.7" 2.4 μm pixel-pitch 6-mega (max) pixel imagers, while assuring the highest resolution and contrast in $\phi 29\text{mm}$ machine-vision lenses.
(* $\phi 29\text{mm}$: Excluding the objective-end of the lens)

- > **Industry-leading Low Distortion (TV Distortion)**

 - Tamron's state-of-the-art optics technology achieves drastic improvement in TV distortion compared with previous models.

- > **High-Quality Imaging in Close-up Shooting Distance**

 - The new lens provides high-quality imaging in commonly used close-up distances.

- > **Rugged Mechanical Design for Anti-Vibration and Shock**

 - Newly designed mechanism improves anti-vibration and shock performance compared with previous models. Even under a severe machine-vision setup with as much as max 10G vibrations and shocks, the new mechanism limits optical (image) deflection within 10 μm .
*Vibration frequency 10-60Hz (amplitude 0.75mm), vibration frequency 60-200Hz (acceleration 100m/s²), and number of cycles: 50 cycles.

- > **A Commonly used Setscrew is Included as a Standard Accessory**

 - A lock-screw used in previous models can be replaced with an embedding-type setscrew, reducing the diameter of the lens barrel for further compact installation.

Model		M117FM06	M117FM08	M117FM12	M117FM16
Imager Size		1/1.7"			
Mount Type		C			
Focal Length		6mm	8mm	12mm	16mm
Aperture Range		F/2.4 ~ F/16			
Field of View Angle (H x V)	1/1.7"	65.0°×50.5°	52.2°×39.5°	34.3°×25.9°	26.1°×19.7°
	1/1.8"	64.2°×44.9°	50.9°×35.1°	33.7°×22.9°	25.7°×17.4°
Focusing Range		0.1m ~ ∞			
Operation	Focus	Manual w/Lock			
	Iris	Manual w/Lock			
Filter Size		M34 P=0.5mm	M30.5 P=0.5mm	M27 P=0.5mm	
Wave Length		Visible Light			
TV Distortion		-1.02% *	-0.85% *	-0.42% *	-0.1% *
Weight		50g	48g	40g	40g
Operating Temperature		-20°C ~ +60°C			

Model		M117FM25	M117FM35	M117FM50
Imager Size		1/1.7"		
Mount Type		C		
Focal Length		25mm	35mm	50mm
Aperture Range		F/2.4 ~ F/16		F/2.8 ~ F/16
Field of View Angle (H x V)	1/1.7"	17.4°×13.1°	12.6°×9.5°	8.9°×6.7°
	1/1.8"	17.1°×11.5°	12.4°×8.4°	8.7°×5.9°
Focusing Range		0.1m ~ ∞		0.2m ~ ∞
Operation	Focus	Manual w/Lock		
	Iris	Manual w/Lock		
Filter Size		M27 P=0.5mm		
Wave Length		Visible Light		
TV Distortion		-0.1% *	-0.06% *	-0.01% *
Weight		45g	65g	60g
Operating Temperature		-20°C ~ +60°C		

* Design Value



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