

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



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-RG	M117FM08-RG	M117FM12-RG	M117FM16-RG
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°
	1/1.8"	64.2°×44.9°	50.9°×35.1°	33.7°×22.9°
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-RG	M117FM35-RG	M117FM50-RG
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°
	1/1.8"	17.1°×11.5°	12.4°×8.4°
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

TAMRON CO., LTD. <http://www.tamron.biz/en/>
1385, Hasunuma, Minuma-ku, Saitama-shi, Saitama 337-8556 JAPAN
Tel: +81-48-684-9129 Fax: +81-48-683-8594

TAMRON USA, INC. <http://www.tamron-usa.com>
10 Austin Boulevard, Commack, NY 11725, USA Tel: +1-631-858-8400 Fax: +1-631-543-3963

TAMRON Europe GmbH. <http://www.tamron.de>
Robert Bosch-Str. 9, 50769 Cologne, GERMANY Tel: +49-221-669544-0 Fax: +49-221-669544-404

TAMRON INDUSTRIES (HONG KONG) LIMITED <http://www.tamron.com.hk>
Unit 908, 9/F, Elite Centre, 22 Hung To Road, Kwun Tong, Kowloon, Hong Kong Tel: +852-2721-7797 Fax: +852-2620-1631

TAMRON (Russia) LLC. <http://www.tamron.ru>
Unikon Business Center 5F No. 9, Plekhanova Street 4a, Moscow, 111123, Russian Federation
Tel: +7-495-970-0112 Fax: +7-495-970-0112

TAMRON INDIA PRIVATE LIMITED <http://www.tamron.in>
805, 806 & 807 8th floor, Vatika City Point, MG Road, Gurgaon-122001, Hayana, India
Tel: +91-124-41-168-12 Fax: +91-124-40-822-72



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