

InfraRed Lenses

The line-up of 22 models in 10 different optical designs meets the needs of virtually all applications.



● *Compatible with Day/ Night Cameras*

● *High Image Quality in Near Infrared Range*

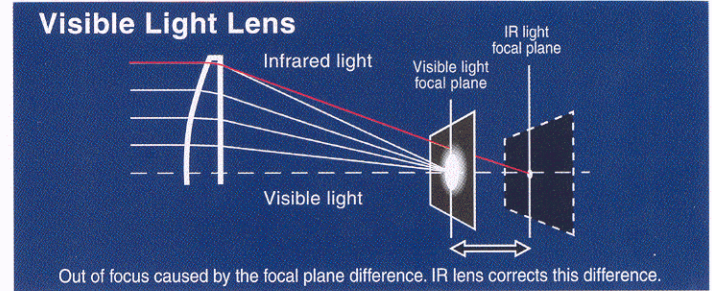
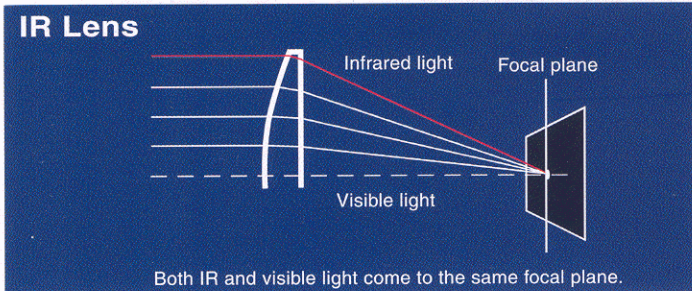
● *Chromatic Aberrations Corrected in Visible and IR Spectrums*

The latest optical designs compensate for various aberrations that occur in Tamron's IR lenses meet the performance characteristics of Day/Night

Advanced Optical Designs Eliminate Shifts of Focus in the Near Infrared Range.

Employment of advanced optical designs in all the IR lenses and special glass (LD elements) in the Vari-Focal series has resulted in the elimination of shifts of focus points in both visible and infrared ranges. Rays of light from both spectrums are focused onto the same focal plane, resulting

in sharp images. This type of compensation is necessary since IR lenses are ideal not only for Day/ Night cameras but also for conventional B/W cameras that are sensitive to both visible and Near Infrared light.

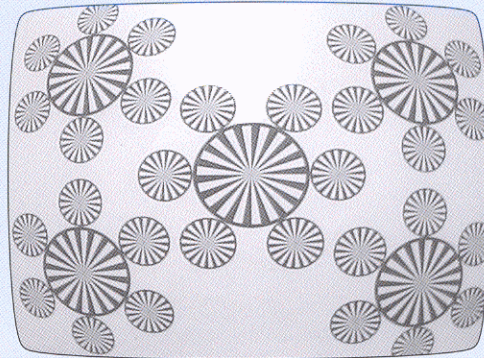
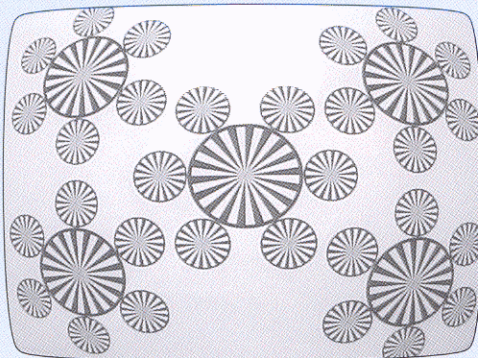


Comparison of focus conditions with IR and normal lenses

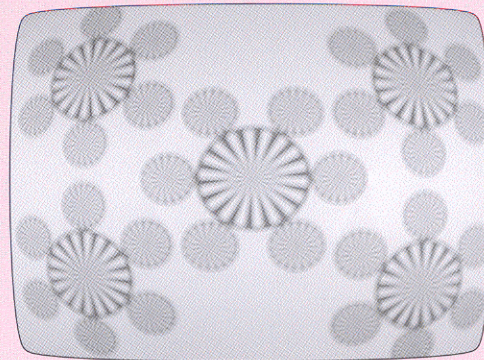
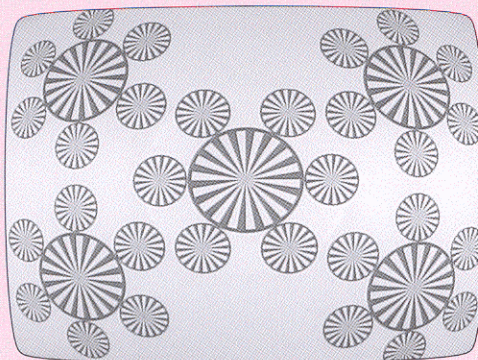
Tamron IR lens

Normal lens

[Images with visible light (under a fluorescent bulb)]



[Images with IR light (850 nm, with a floodlight)]



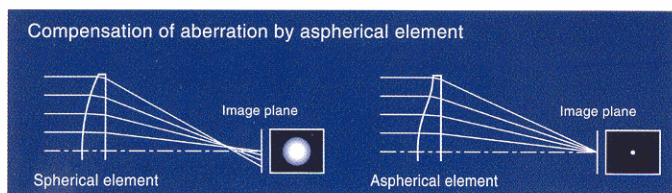
Vari-Focal Lenses

Model	13VM308ASIR	13VG308ASIR	13VM2811ASIR	13VG2811ASIR	13VM1040ASIR	13VG1040ASIR	12VM412ASIR
Image Size	1/3	1/3	1/3	1/3	1/3	1/3	1/2
Focal Length	3.0-8mm	3.0-8mm	2.8-11mm	2.8-11mm	10-40mm	10-40mm	4-12mm
Aperture Range	1.0-Close	1.0-360	1.4-Close	1.4-360	1.4-Close	1.4-360	1.2-Close
Mount	CS	CS	CS	CS	CS	CS	C
Angular of View (H x V)	Wide	90.8° x 66.6°	90.8° x 66.6°	97.4° x 72.4°	97.4° x 72.4°	27.5° x 20.4°	93.7° x 68.9°
	Tele	36.2° x 27.0°	36.2° x 27.0°	26.2° x 19.7°	26.2° x 19.7°	7.0° x 5.2°	31.2° x 23.4°
Operation	Focus	Manual	Manual	Manual	Manual	Manual	Manual
	Zoom	Manual	Manual	Manual	Manual	Manual	Manual
	Iris	Manual	DC-Auto	Manual	DC-Auto	Manual	DC-Auto
Weight	39g	47g	72g	87g	77g	87g	58g

In the visible and near infrared ranges for sharp images in all applications. Cameras 100%, for real 24-hour surveillance.

Outstanding Image Quality with Aspherical Lens Elements

Aspherical elements are used in Vari-Focal lenses to achieve high contrast and high definition images in all ranges. Additionally, with the rising demand to boost corner resolution due to the increasing popularity of digital recorders, the image quality at the corners of the image is enhanced. Tamron's IR lenses provide the most suitable solution for high quality imaging with digital recorders.



Wide Dynamic Range of F/1.0 Aperture

13VG308ASIR
13VM308ASIR

The 3.0-8mm lens, the standard Vari-Focal lens, features an F/1.0 maximum aperture to facilitate maximum performance in dimly-lit conditions. Since surveillance may take place in totally dark locations where infrared illumination is used, real 24-hour surveillance is now possible.



Built-in Slip Mount Mechanism

A slip mount mechanism designed to allow rotation of the lens after mounting it on the camera is built in for fine-tuning its position. This feature allows the lens' auto-iris meter on the lower part of the lens to be rotated to the correct position, depending upon the mounting position of the camera.

Vari-Focal Lenses



Fixed-Focal Lenses

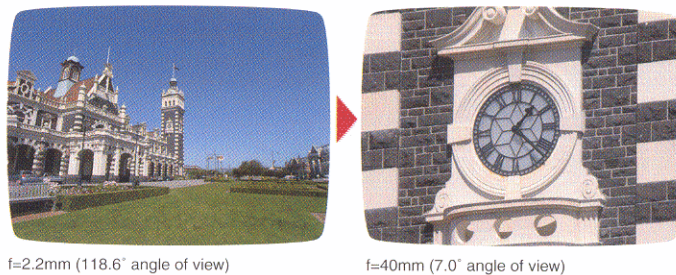


Wide Selection of Lenses in Versatile Ranges for Choosing the Best Angle of View

Tamron's IR lenses are ideal for a variety of applications since the line-up includes 5 different Vari-Focal and 5 Fixed-Focal length lenses. The line-up covers from 2.2mm wideangle (providing 118.6° angle of view) to 40mm telephoto (providing 7.0° angle of view), in order to meet nearly all applications.

*The 10-40mm lens is also compatible with 1/2-inch CCD cameras and is available in manual-iris and DC auto-iris types.

■ Difference in angles of view with 2.2mm and 40mm Vari-Focal lens



f=2.2mm (118.6° angle of view)

f=40mm (7.0° angle of view)

Locking Mechanism Built into Each Ring

A locking mechanism is attached to each control ring. Anchoring the rings in place prevents unwanted shifts in the desired setting after the lens has been mounted.

Environmentally-conscious Design

Tamron's IR lenses use glass having no lead content, and lead-free solder is used in manufacturing. Other environmentally-friendly materials are used as well.

Multi-layer Coating Applied

Tamron's special multi-layer coating designed to prevent transmittance fall-off in the infrared range is effectively applied to minimize ghosting and flare caused by back-lighting, thus providing high contrast quality images even in adverse back-lit conditions.



12VG412ASIR 12VA412ASIR 12VM1040ASIR 12VG1040ASIR 12VA1040ASIR

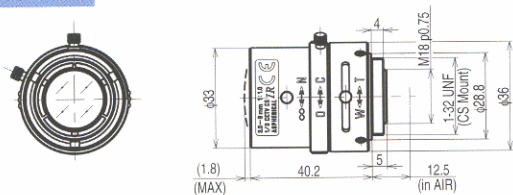
1/2	1/2	1/2	1/2	1/2
4-12mm	4-12mm	10-40mm	10-40mm	10-40mm
1.2-360	1.2-360	1.4-Close	1.4-360	1.4-360
C	C	C	C	C
93.7" x 68.9"	93.7" x 68.9"	37.5" x 27.5"	37.5" x 27.5"	37.5" x 27.5"
31.2" x 23.4"	31.2" x 23.4"	9.2" x 7.0"	9.2" x 7.0"	9.2" x 7.0"
Manual	Manual	Manual	Manual	Manual
Manual	Manual	Manual	Manual	Manual
DC-Auto	Video-Auto	Manual	DC-Auto	Video-Auto
68g	72g	77g	87g	93g

Fixed-Focal Lenses

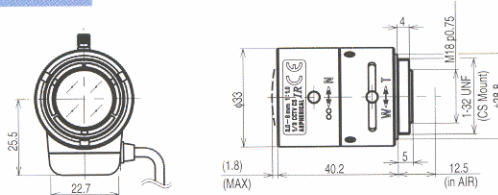
Model	Image Size	Focal Length	Aperture Range	Mount	Weight
Manual Iris	13FM221R	1/3	2.2mm	1.2-Close	CS 41g
	13FM281R	1/3	2.8mm	1.2-Close	CS 36g
	13FM041R	1/3	4mm	1.2-Close	CS 33g
	13FM061R	1/3	6mm	1.2-Close	CS 32g
	13FM081R	1/3	8mm	1.2-Close	CS 33g
Model	Image Size	Focal Length	Aperture Range	Mount	Weight
Auto Iris (DC)	13FG221R	1/3	2.2mm	1.2-360	CS 49g
	13FG281R	1/3	2.8mm	1.2-360	CS 44g
	13FG041R	1/3	4mm	1.2-360	CS 40g
	13FG061R	1/3	6mm	1.2-360	CS 38g
	13FG081R	1/3	8mm	1.2-360	CS 40g

Dimensions

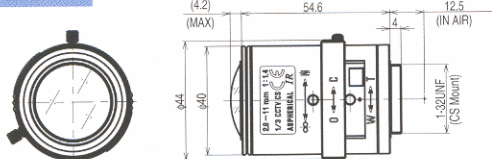
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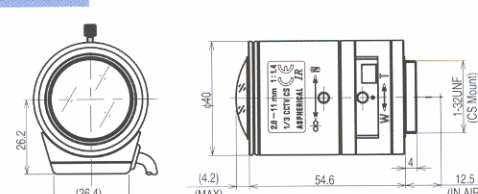
13VG308ASIR



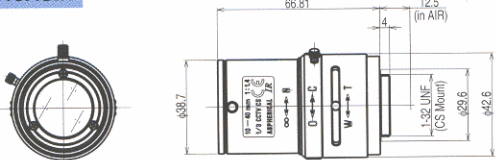
13VM2811ASIR



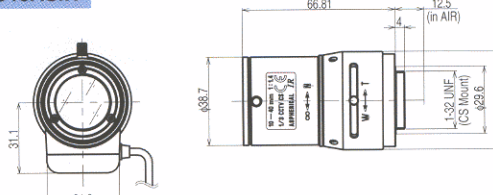
13VG2811ASIR



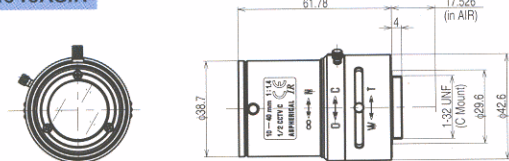
13VM1040ASIR



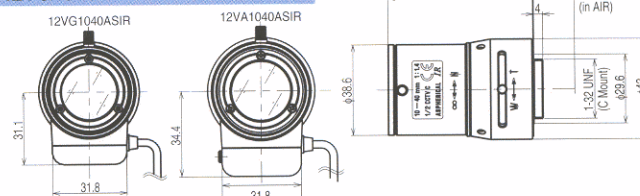
13VG1040ASIR



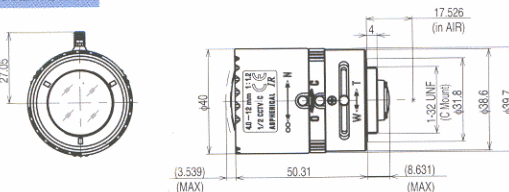
12VM1040ASIR



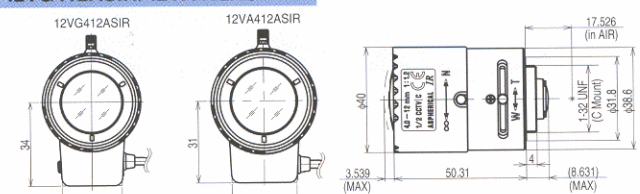
12VG1040ASIR / 12VA1040ASIR



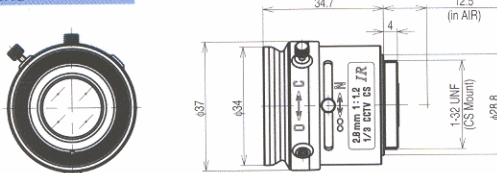
12VM412ASIR



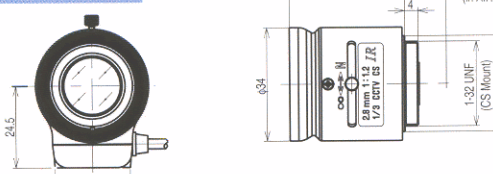
12VG412ASIR / 12VA412ASIR



Fixed-Focal Lenses Manual Iris



Fixed-Focal Lenses Auto Iris



Caution : Please read the instruction manual carefully before using the lens.

TAMRON

Manufacturer of precise and sophisticated optical products for a broad range of industries.



Quality Assurance Activities: At Tamron, quality management activities are performed in compliance with ISO9001:2000 not only to assure product quality but to enhance customer satisfaction.

Environmental Protection: We recognize the significance of our social responsibilities. Tamron promotes corporate activities that protect the earth's environment through the establishment of a quality assurance system that is compliant with ISO14001.

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