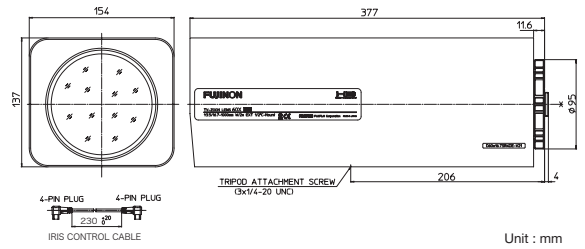


D60x16.7SR4 Series

Day Night **VISIBLE LIGHT CUT** **2MP** **60x** **1/1.8"** **1,000mm** Extender **2x**



Unit : mm

■ A compact and lightweight 60x zoom model featuring optical anti-vibration*¹, autofocus*² and compatibility with full-HD cameras

This is a 60x zoom security camera lens, equipped with the world's first optical anti-vibration function, and compatible with full-HD cameras.

It supports full-HD cameras and sports a compact and lightweight body despite its focal length range reaching 1,000mm.

The lens enables a compact long-range security system, ideal for the surveillance of remote locations such as ports, harbors, airports and national borders, or for monitoring dams, rivers, etc. for disaster prevention.

*1: Featured in D60x16.7SR4FE-ZP1C

*2: Featured in D60x16.7SR4DE-ZP1A and D60x16.7SR4FE-ZP1C

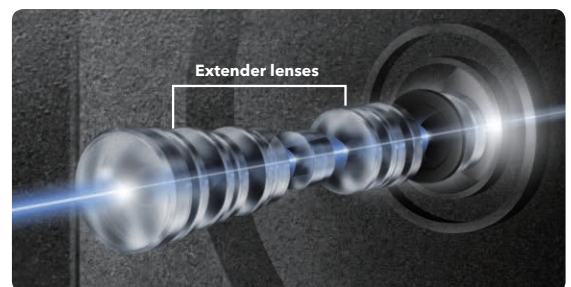
		D60x16.7SR4DE-V21	D60x16.7SR4DE-V23S (optical axis adjustment)	D60x16.7SR4DE-ZP1A (AF)	D60x16.7SR4FE-ZP1C (AF+Opt. Anti vibration)
Sensor size (max.)		1/1.8"			
Focal length (mm)	1x	16.7 - 1000			
	2x	33.4 - 2000			
Zoom ratio		60x			
Extender		2x			
Mount		C-mount			
Iris range	1x	F3.5 - F16			
	2x	F7.0 - F32			
Maximum relative aperture (W/T)		1:3.5 / 1:8.8			
M. O. D. (m)		5			
Filter	ND	1/5, 1/64			
	Visible light cut	✓			
AF		-		✓ (Applicable for analog cameras)	
Optical Anti-Vibration		-		✓	
Lens control interface		Analog		Serial	
Lens control	Zoom	Speed		Speed + Position	
	Focus	Speed		Speed + Position	
	Iris	Auto(DC)+Speed		Auto(DC)+Position	
Position output	Zoom	✓		✓	
	Focus	✓		✓	
	Iris	-		✓	
Day & Night		-		✓	
Temperature correction mechanism		-		✓	
Optical axis adjustment		-		✓	
Strengthened bottom plate		-		✓	
Back focal distance (in air) (mm)		24.85			
Flange focal length (mm)		17.526			
Exit Pupil position (from image plane) (mm)	1x	-448.80			
	2x	-85.23			
Size (HxWxL) (mm)		137 x 154 x 377			
Weight (kg)		6.5	6.7	6.5	7.1
Filter thread (mm)		M112 x 0.75mm			
Operating temperature		0°C - +50°C			
Wiring Diagram		P19			

*1: For details on the Iris-Remote connection, see the relevant Technical Reference (Page 20).

■ A built-in 2x extender for instantaneously doubling the focal length

The lens is equipped with a built-in optical extender, which can instantaneously double the focal length at the touch of a button (2,000mm for D60x16.7SR4 Series and 1,500mm for D60x12.5R3DE Series). Unlike an external extender, the built-in design means the position of focus remains unchanged even when the extender is triggered.

■ D60x16.7SR4GE-V21: IR Cut Filter inside



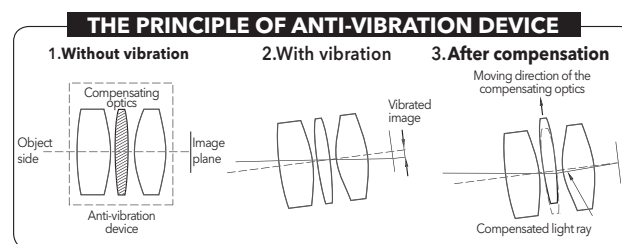
Please download the specification sheet and the drawing data.

For detailed specifications, see the following website: <http://fujifilm.jp/business/security/index.html>

■ Optical anti-vibration function “OS-TECH”

OS-TECH
Optical Stabilized Technology

Lenses with long focal lengths have a narrow angle of view at the telephoto end. Camera movements due to wind or because of the height of installation position cause image blur, making it difficult to capture subject matter. In order to minimize motion blur under such conditions as much as possible to keep footage stable and clear, Fujinon's CCTV lenses are fitted with Fujifilm's original optical anti-vibration function called OS-TECH. A gyro sensor within a lens detects the amount of vibrations, and passes the data to the lens's microcomputer, which uses a software program to calculate the amount of correction needed and shift the correction lens group to control image shake. The fact that the correction is applied optically with lens elements, means the function has no time lag, and provides anti-vibration effect edge-to-edge across the full-HD screen. During the development stage, special considerations have been paid to durability and reliability through the use of highly reliable bearings in anti-vibration parts.



■ Featuring the “Temperature Correction Mechanism” for automatically correcting temperature-induced focus shift

Security camera systems are often used in tough weather conditions. Significant temperature fluctuations could shift the focal plane, resulting in inaccurate focusing. Under such a condition, the Temperature Correction Mechanism uses data from the temperature sensor on a lens, and shifts lens elements into the optimum positions to keep the focal plane constant, thereby offering stable focusing performance even in an environment with large temperature fluctuations.

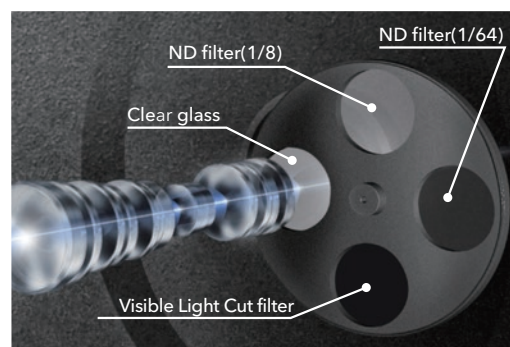
■ An built-in turret with three different types of filters that can be switched over with a single command

● Featuring two ND filters, which cuts down the amount of light in excessively bright conditions to achieve optimum light

When strong sunlight prevents the selection of a desirable f-stop value, ND filter can be used to reduce the amount of light with minimizing the decline in resolution caused by smaller aperture. The D60x16.7 series of lenses feature two ND filters in the densities of 1/8 and 1/64.

● “Visible Light Cut Filter”

When used in poor visibility with mist, rain, etc., this filter blocks visible light which scatters in the air to clearly capture images with Near-infrared light. (See P09 “How does the Visible Light Cut filter de-haze images?”)



■ Delivering clear images with minimal focus shift round the clock regardless of the types of light conditions — Day & Night Lens

Security cameras capture images with visible light during the day and use a near-infrared light projector from dusk through night. The use of light with different wavelengths causes a shift in the image-forming location, resulting in blurry images.

Fujinon's Day & Night Lens features special optical glass elements (Super ED and ED glass elements) to ensure that the image is formed constantly on the same plane, regardless of the change of light sources, to achieve sharpness.

● Use of “Super ED (Extra-low Dispersion)” glass with an advanced level of chromatic aberration correction

Zoom lenses covering long focal lengths inevitably suffer from “chromatic aberration,” i.e. color bleeding in images. The Super ED glass serves the role of controlling this chromatic aberration. It requires a soft glass material, making it difficult to manufacture. However, with Fujifilm's outstanding optical technology, the D60x16.7SR4 series feature two large Super ED glass elements to achieve advanced image quality.

