FUJIFILM
Value from Innovation



LONG RANGE MULTI-PURPOSE CAMERA
FUJIFILM SX SERIES

FUJINON

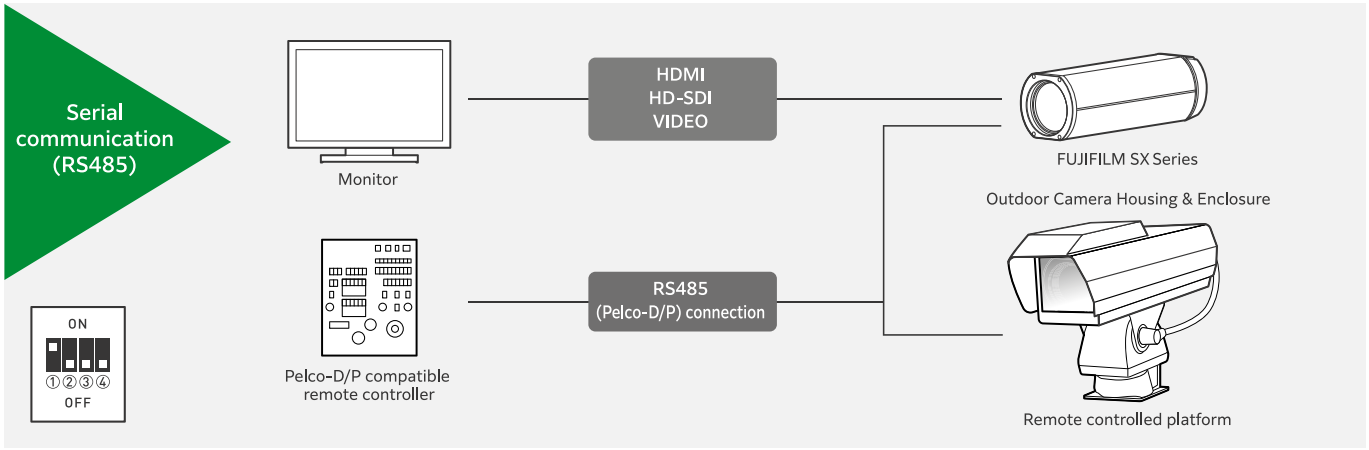
Advanced Safety, Security and Quality

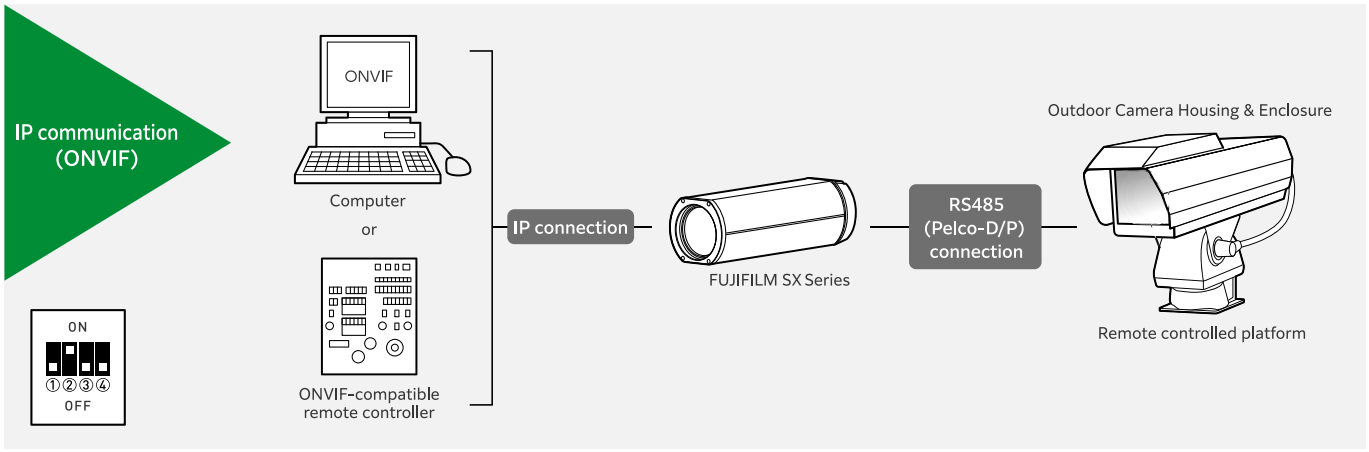
The fusion of our high performance and quality lens manufacturing technology and our cutting edge image processing technology has resulted in our new SX camera series.

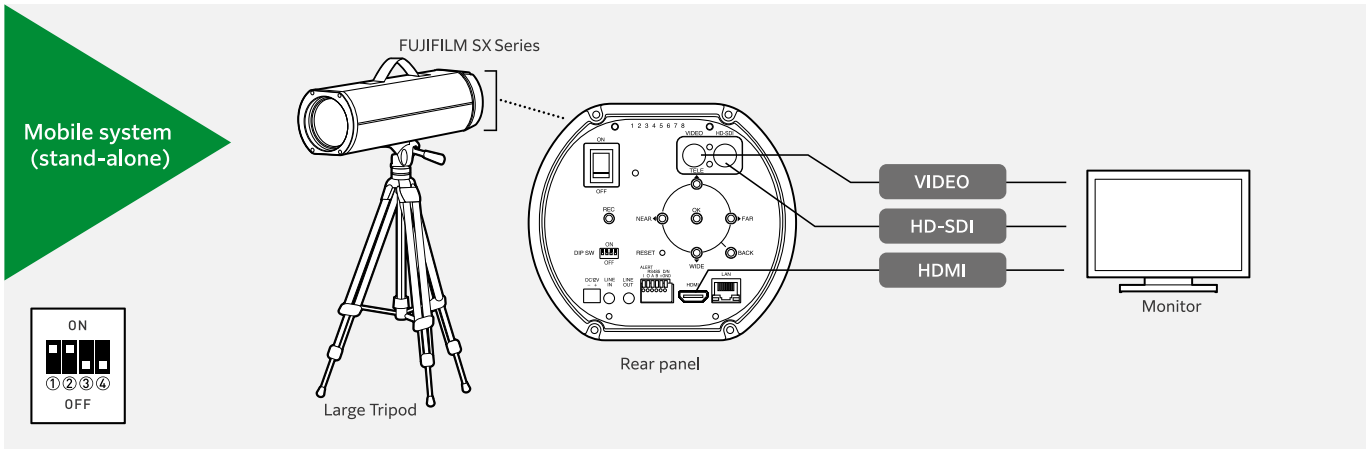


Supporting various interfaces to enable diverse system administration

The SX Series supports both serial communications [RS485] and IP communications [ONVIF] so that it can be incorporated into customers' existing systems in place. The RS485 protocol supports Pelco-D / Pelco-P and can be downloaded from the FUJIFILM website.







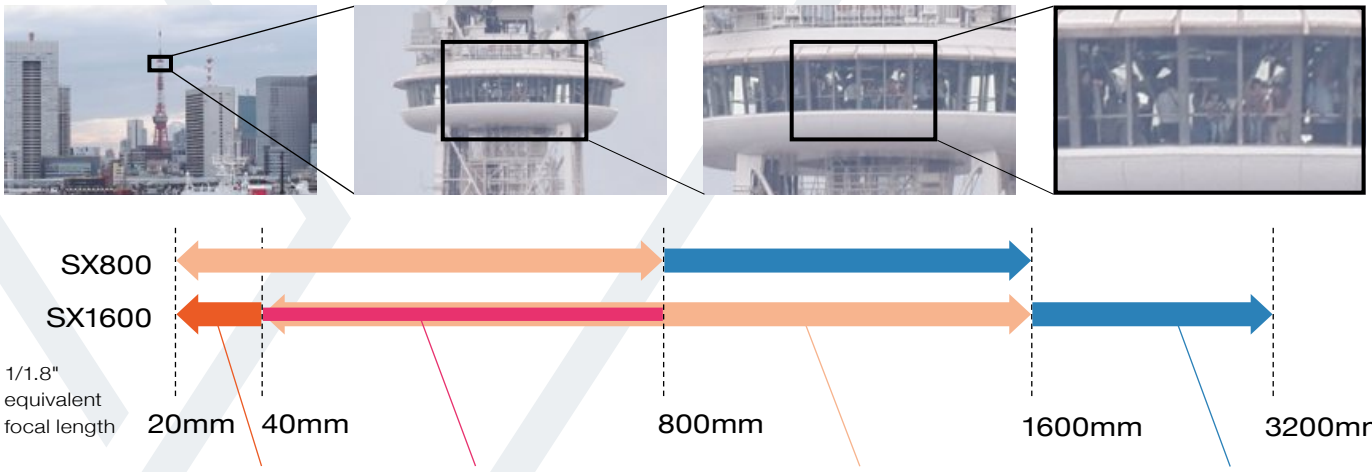
Note: This product is NOT waterproof. For outdoor use, please install in an outdoor housing.

Long-range surveillance

Optical telephoto range 800mm / 1600mm, with digital zoom up to 3200mm

Equipped with a 40x optical super-telephoto zoom lens covering a broad range of focal lengths from 20mm wide-angle to 800mm telephoto for the SX800, and from 40mm to 1600mm for the SX1600. With the SX1600, the effective area of the image on the sensor can be extended to 1.1" and widened to 20mm, a focal length similar to that of the SX800. Combined with a digital zoom of up to 2x, this enables a zoom range from a wide angle of 20mm to a telephoto of 3200mm equivalent* (160x zoom). When the effective area is extended, higher resolution images over Full HD (1920x1080) can be resized and processed to provide higher quality, clearer images.

* 1/1.8" equivalent focal length



High-performance image stabilization

New image stabilization system

Combines optical image stabilization (OIS) and electronic image stabilization (EIS) to accurately compensate for camera shake, typically caused by gusts and footing vibrations at the site of camera installation. This system is particularly effective when shooting in the ultra-telephoto range, which is susceptible to even the slightest of shakes.



Without image stabilization



With image stabilization

New ceramic ball roller system

The OIS system uses a unique "ceramic ball roller" system. Ceramic balls, processed with ultimate precision, minimize friction and resistance to achieve advanced responsiveness and excellent durability in image stabilization.

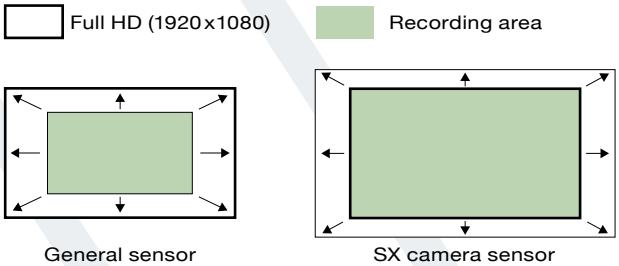


Newly developed devices

Supports high-precision gyro sensors to accurately detect minute vibrations that could not be detected previously. The use of a newly-developed high-thrust linear motor delivers an advanced level of accuracy and tracking performance.

High-performance EIS

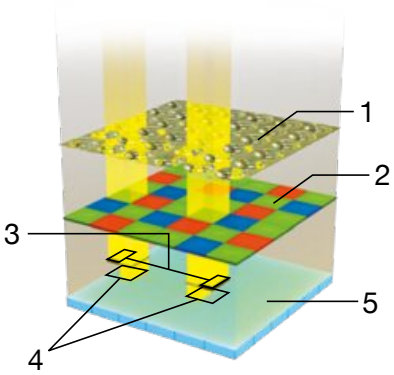
In the EIS mode, the system uses a sensor large enough for the lens's effective diameter to secure full HD resolution (1920x1080), thereby delivering footage of premium quality. The combined use with OIS also improves the durability of the image stabilization system substantially.



High-speed AF system

On-sensor phase detection AF

On-sensor phase detection AF uses phase detection pixels across the sensor to instantaneously measure distance according to the displacement of incident lights. The SX Series also offers "contrast AF," which detects areas of high contrast in images with high accuracy, and automatically switches to the optimum AF setting.The combination of a highly sensitive sensor and advanced noise reduction allows the SX Series to capture clear footage with minimal noise even in low-light.



1. Micro lens
2. Color filter
3. Phase detection filter
4. Phase detection pixels
5. Photo diode

Rear focus mechanism

Uses a Rear Focus mechanism to significantly reduce the weight of the focusing lens group, dramatically increasing the focus drive speed to enable “Continuous AF.” Users can choose between “Continuous AF”, “Quick AF,” and “Manual Focus” according to the operating conditions.

Continuous AF: Auto focus continues to operate and keeps adjusting the focus.
Quick AF: Automatically focuses on a subject once after zoom operation.
MF: Allows for manual focus adjustment on the subject.

Simplified setup

Camera with built-in lens

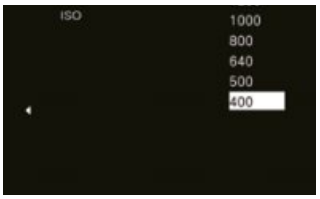
Conventional surveillance systems require the adjustment of optical axis and flange focal length when mounting a lens on a camera. The SX Series features a built-in lens and is shipped with these settings optimally adjusted to deliver maximum performance. The design also eliminates the need for complicated wiring, thereby significantly reducing installation time and effort.



Image processing technology

Low light conditions

The combination of a highly sensitive sensor and advanced noise reduction allows the SX Series to capture clear footage with minimal noise even in low-light.



ISO 400



ISO 204800

Fog reduction

Featuring unique imaging technology that corrects hazy images caused by airborne mist and dust for vivid clarity and enhanced visibility.



Fog reduction OFF



Fog reduction ON

Heat haze reduction

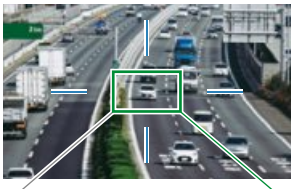
Utilizes unique image processing technology to reduce the shimmering effect caused by heat haze resulting from large temperature differences in the atmosphere, making the entire image clearer and easier to view.

Robustness

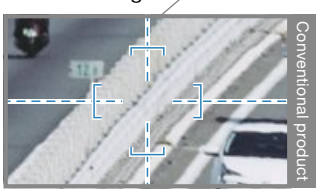
Optical axis accuracy

When the optical axis of the lens is not perfectly aligned with the image sensor, the subject may shift off-center during zooming. The SX Series achieves high optical axis accuracy by precisely adjusting both the camera and the lens.

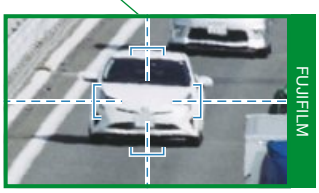
Before zooming



After zooming



Missing the target



Keeps the target in the center

Compact and lightweight body

Combines 32x optical zoom with a 3.9kg compact body

Features a 12.5mm to 400mm focal range (horizontal FOV: 31.8°–1.0°) with 32x optical zoom, while maintaining a compact size and a weight of 3.9kg. This makes it ideal for mobile use on vehicles or ships, as well as for flexible deployment in portable surveillance and inspection systems.



30% smaller

40% lighter

*Compared to SX800

Features a newly developed F2.8 lens

Equipped with the brightest F2.8 Lens in the SX Series for clear nighttime imaging.

Featuring a newly developed SX Series zoom lens with a bright F2.8 aperture. The unique optical design ensures a consistent F2.8 brightness from 12.5mm to 200mm. This high light-gathering efficiency reduces noise at higher sensitivities, enabling clean and sharp imaging even in dark or nighttime conditions.



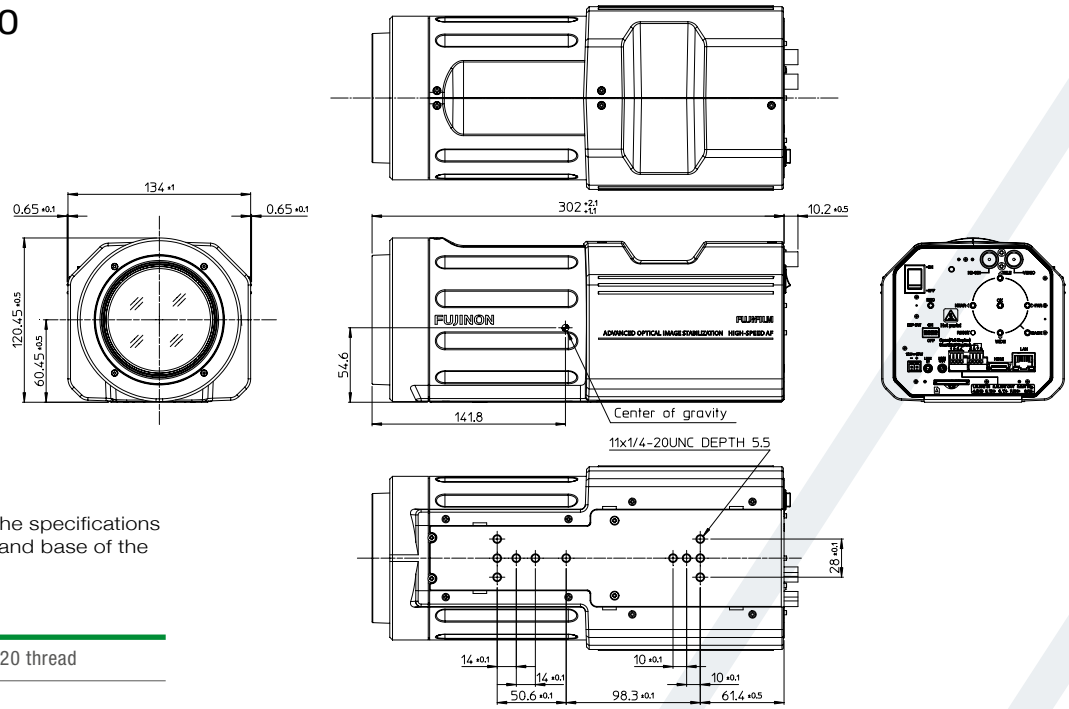
Naked eye view



SX400 at 12.5mm SX400 at 200mm

EXTERIOR VIEW

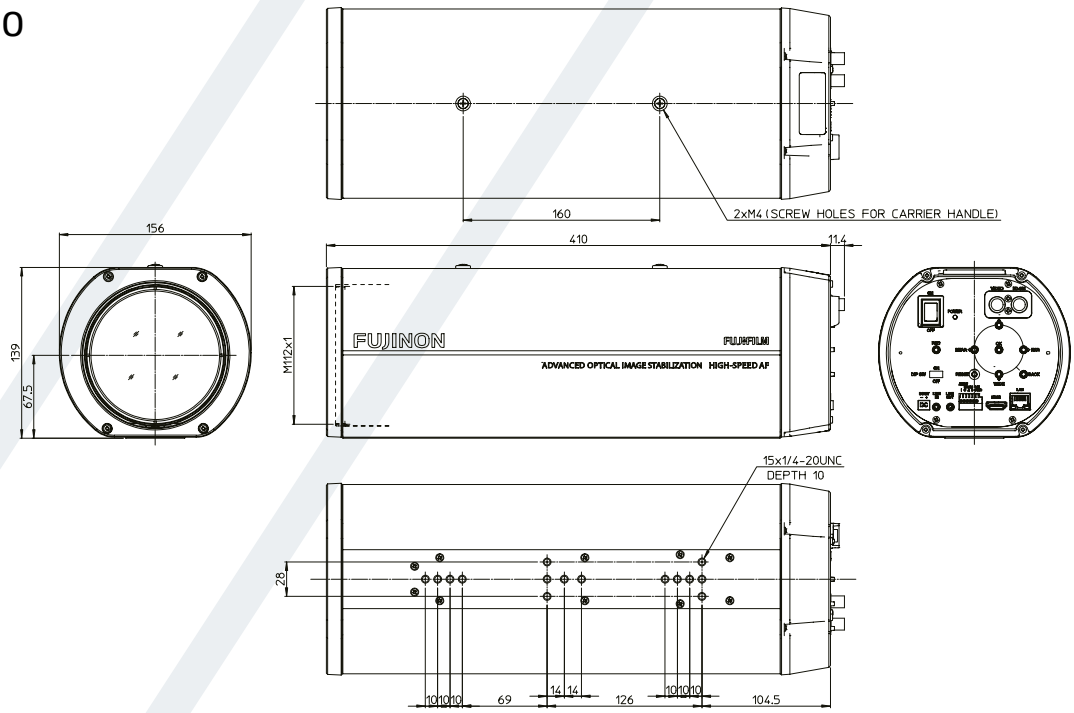
SX400



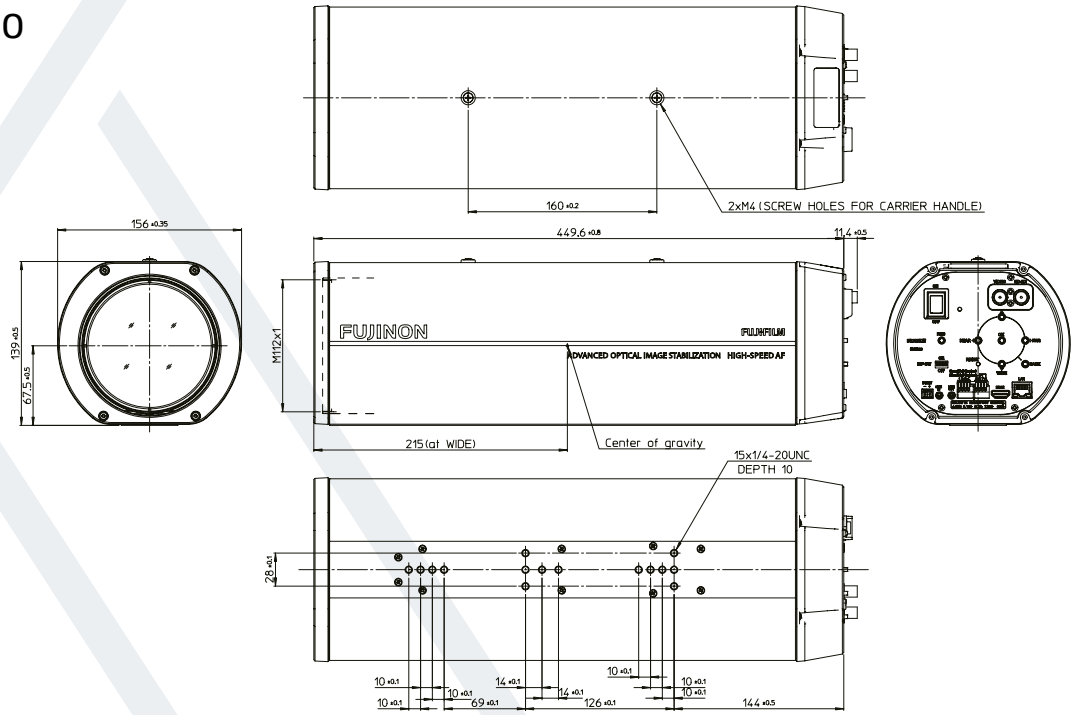
Screw hole specifications The specifications for the screw holes on the top and base of the camera are as follows:

	Base
Type	1/4", UNC 20 thread
Quantity	11
Depth	5.5mm
Tightening torque	240–300 N•cm

SX800

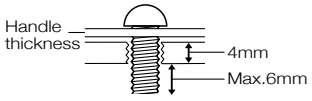


SX1600



⚠ CAUTIONS

- Use M4 screws with a thread engagement length of at least 4mm and a protrusion of no more than 6 mm.
- Do not use the screw holes on top of the camera for any other purpose.



Screw hole specifications The specifications for the screw holes on the top and base of the camera are as follows:

	Top	Base
Type	M4	1/4", UNC 20 thread
Quantity	2	15
Depth	Pass through (threaded depth 4mm)	10mm
Tightening torque	80–100 N•cm	240–300 N•cm

MAIN SPECIFICATIONS OF THE LONG RANGE MULTI-PURPOSE CAMERA, SX SERIES

Model		Fujifilm SX400	Fujifilm SX800	Fujifilm SX1600
Optical zoom		32x	40x	40x
Digital zoom			1.25x, 1.5x, 1.75x, 2x	
Focal length		12.5mm – 400mm	20mm – 800mm	40mm – 1600mm
Maximum aperture ratio		F2.8 (12.5-200mm), F5.2 (400mm)	F4 (20mm), F7.4 (800mm)	F8 (40mm), F14.8 (1600mm)
Minimum object distance (M.O.D.) from the front lens		10m	10m (20 – 400mm in focal length) 20m (401 – 800mm in focal length)	10m (40 – 800mm in 1/1.8" equivalent focal length) 20m (801 – 1600mm in 1/1.8" equivalent focal length)
Angle of view [16:9 (H x V)]		12.5mm 31.8°x 18.4° 400mm 1.00°x 0.57°	20mm 21.0° x 11.8° 800mm 0.55° x 0.31°	40mm 10.5° x 5.9° (1/1.8" equivalent) 1600mm 0.27° x 0.15° (1/1.8" equivalent)
Effective sensor size		1/1.8"	1/1.8"	1/1.8" - 1.1"
Minimum illumination	Color	0.00014 lux (at F1.2) / 0.0008 lux (at F2.8)	0.00015 lux (at F1.2) / 0.0017 lux (at F4.0)	0.00014 lux (at F1.2) / 0.0064 lux (at F8.0)
	B/W	0.0001 lux (at F1.2) / 0.00053 lux (at F2.8)	0.0001 lux (at F1.2) / 0.0011 lux (at F4.0)	0.0001 lux (at F1.2) / 0.0042 lux (at F8.0)
Focus settings			Continuous AF, Quick AF, Manual	
Iris		Auto, Manual (Aperture range : F2.8– F16)	Auto, Manual (Aperture range: F4 – F16)	Auto, Manual (Aperture range: F8 – F32)
Shutter speed		Auto (with minimum speed selection of 1/8 – 1/125s), Manual (1 – 1/32000s)		
Gain		AGC, HYPER-AGC, Manual (Setting range: ISO400 – 819200)		
Optical filter		Visible Light Cut filter (ON / OFF)		
Day / Night selection		Auto, Scheduled, Manual		
Wavelengths selection		950nm, 940nm, 850nm, 808nm, Visible light		
Image stabilization		Auto (OIS+EIS), OIS, EIS, OFF	Auto OIS, EIS, OFF	Auto (OIS+EIS), OIS, EIS, OFF
Wide dynamic range			Selectable (2 levels)	
Back light correction			Selectable (2 levels)	
Heat haze reduction			Selectable (3 levels)	
Fog reduction			Selectable (3 levels)	
Noise reduction			Selectable (3 levels)	
Brightness / Contrast / Saturation / Sharpness			Selectable (100 levels)	
White balance		AWB, AWB-W, Custom 1 – 2, Fine, Shade, Color Temperature (3000K, 5000K, 9000K)		
Video format		NTSC: 1080p, 720p, 480p / PAL: 1080p, 720p, 576p		
Video output systems		HDMI, HD-SDI, Composite(BNC)		
Audio input / output		Input impedance: 40kΩ / Output impedance: 200Ω		
External interfaces		Ethernet (10Base -T, 100Base-TX, RJ45 connector)		
		RS-485 (Half duplex, Full duplex)	RS-485 (Half duplex)	RS-485 (Half duplex, Full duplex)
		External trigger (Day / Night)		
RS-485 compatible protocol		Pelco-D / Pelco-P (including extended commands)		
Power source		DC 12V		
Power consumption		15W	9.5W	15W
Supported SD card (SDHC / SDXC)		UHS-1-compatible 8GB+, SD Speed Class 10 or above		
File recording format		MOV (Video encoding: H.264 compliant, Motion JPEG)		
Network protocols		ICMP, ARP, TCP / IP, UDP / IP, HTTP, RTSP, RTP, DHCP, DNS, RTP/RTCP, SNTP		
Supported OS		Windows 11		
Supported browser		Google Chrome 142+ / Windows Edge 142+		
ONVIF support		Yes (Profile S)		
Number of videos delivered		1		
Size (H x W x L)		121mm x 134mm x 302mm	139mm x 156mm x 410mm	139mm x 156mm x 450mm
Weight		3.9kg	6.4kg	7.4kg
Operating environment		Temperature: -10°C – +50°C / Humidity: 10% – 80% (no condensation)		
Tilt limit		45 degrees upward – 45 degrees downward		

Specifications are subject to change without notice. 07/26

FUJIFILM

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