

**FUJIFILM**  
Value from Innovation

HIGH-END CAMERA  $\times$  TOP PERFORMANCE LENS



THE NEW FUJINON SX800. THE BEST OF BOTH.

**FUJINON**

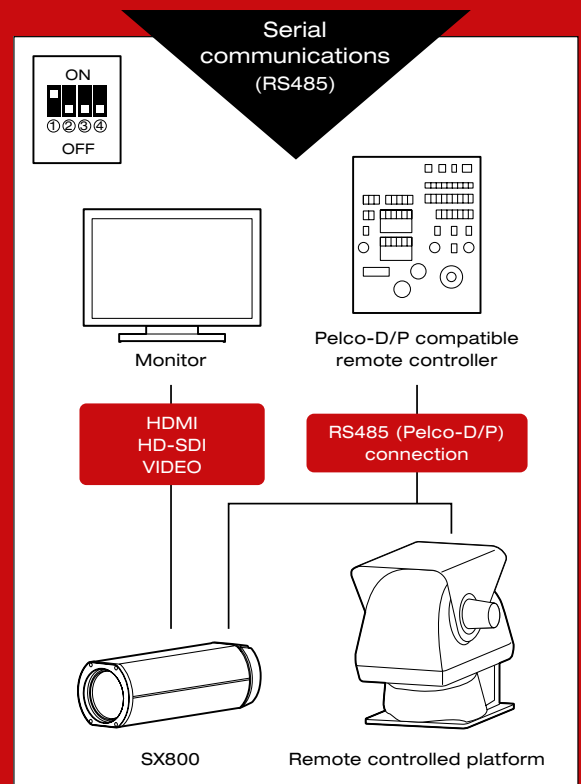


# ADVANCED SAFETY SECURITY AND QUALITY

FUJIFILM has brought together its optical technology, developed over many years, and unique image processing technology to offer a new solution in long-range surveillance systems.

## Supporting various interfaces to enable diverse system administration

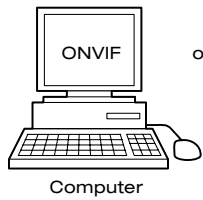
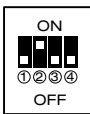
The SX800 supports both serial communications [RS485] and IP communications [ONVIF] so that it can be incorporated into customers' existing systems in place. The RS485 protocol supports Pelco-D / Pelco-P\* and can be downloaded from the FUJIFILM website.



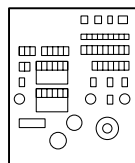
◀ \*Technical information can be downloaded from the website.  
<https://optics.fujifilm.com/security/en/support/>



IP communications  
(ONVIF)

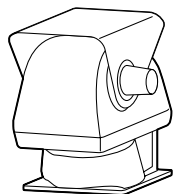
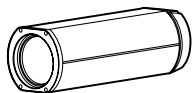


or



ONVIF-compatible  
remote controller

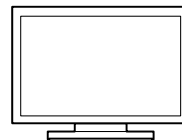
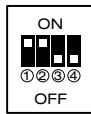
IP connection



Remote controlled platform

RS485 (Pelco-D/P)  
connection

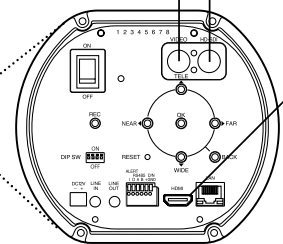
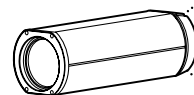
Mobile system  
(stand-alone)



HDMI

HD-SDI

VIDEO



Rear panel

## Long-range surveillance

### 40x optical zoom

The SX800 is equipped with a 40x optical zoom lens that covers a broad range of focal lengths from 20mm on the wide angle end to 800mm on the telephoto end. It is complemented with 1.25x digital zoom to achieve long-range surveillance equivalent to 1000mm in focal length.



20mm



800mm

## High-performance image stabilization

### New image stabilization system

The SX800 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. The system is particularly effective when shooting in the ultra-telephoto range, which is susceptible to even the slightest of shakes.



Without image stabilization



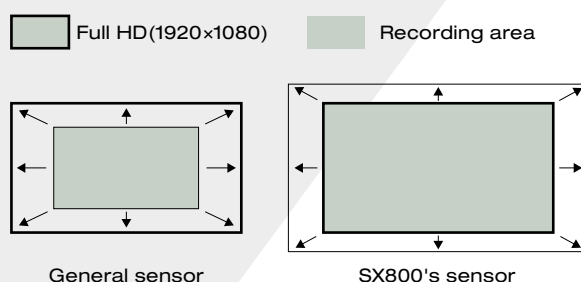
With image stabilization

### Use of new devices

The SX800 sports high-precision gyro sensors to accurately detect minute vibrations that could not be detected previously. The use of newly-developed high-thrust linear motor delivers an advanced level of accuracy and tracking performance.

### High-performance EIS

In the EIS mode, the SX800 uses a sensor large enough for its lens's effective diameter to secure full HD resolution (1920 x 1080), thereby delivering footage of premium quality. The combined use with OIS also improves the durability of the image stabilization system substantially.



### New ceramic bead roller system

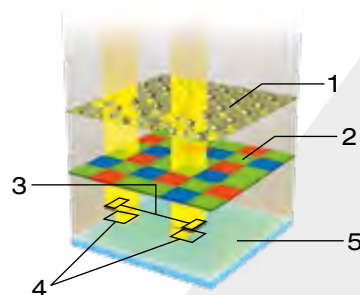
The SX800's OIS uses a unique "ceramic bead roller" system. Ceramic beads, processed in ultimate precision, minimize friction and resistance to achieve advanced responsiveness and excellent durability in image stabilization.



# High-speed AF system

## On-sensor phase detection AF

The on-sensor phase detection AF uses phase detection pixels across the sensor to instantaneously measure distance according to the displacement of incident lights. The SX800 also offers “contrast AF”, which detects areas of high contrast in images at high accuracy, and automatically switches to the optimum AF setting.



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

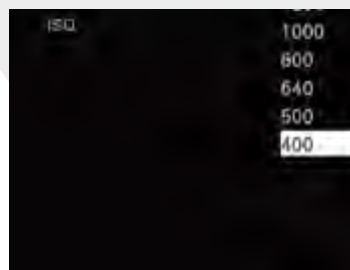
## Rear focus mechanism

The use of the Rear Focus mechanism has significantly reduced the weight of the focusing lens group. This has also dramatically increased the focus drive speed to enable “continuous AF”. Users can choose between “Continuous AF”, “Quick AF” and “Manual Focus” according to the conditions where the camera is used.

# Image processing technology

## Low light conditions

The use of the highly sensitive sensor and the effect of advanced noise reduction mean the SX800 can shoot clear footage with minimal noise even in low light conditions.



ISO 400



ISO 204800

## Dehazing

The SX800 uses a unique imaging technology to bring vivid clarity to hazy images caused by light diffusion with airborne mist droplets and dust.



Dehazing OFF



Dehazing ON

## Heat haze removal

The SX800 uses a unique image processing technology to reduce the shimmering effect of heat haze, caused by large difference in atmospheric temperatures, to make the entire images easier to see.

Link to the product introduction video. ▶



# 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 SX800, which carries a built-in lens, is shipped with such settings optimally adjusted to bring out maximum performance. The design also eliminates the need for complicated wiring, thereby significantly reducing man-hours at the time of installation.



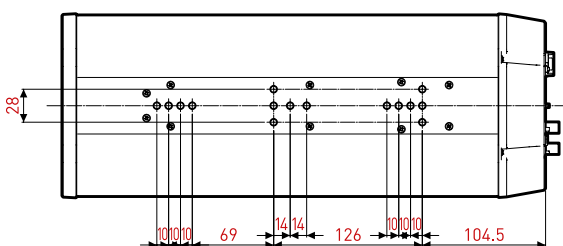
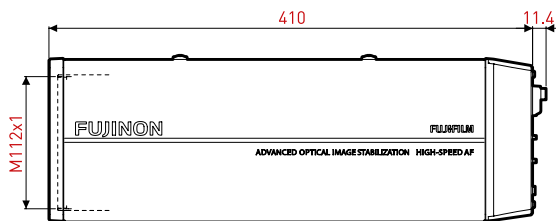
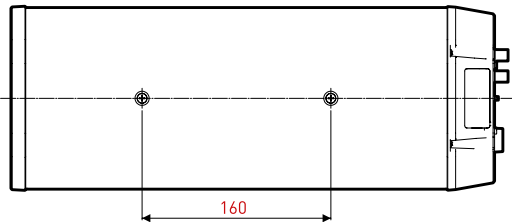
# Robustness

## New design with advanced rigidity and portability

The SX800's aluminum extrusion body is highly rigid and exceptionally robust. A carrying handle may be attached to the body, using screw holes at the top, for transporting convenience.

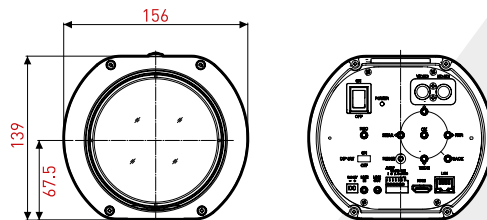
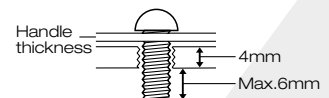


## EXTERIOR VIEW



### CAUTIONS

- Use M4 screws with a thread engagement length of at least 4 mm 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 SURVEILLANCE SYSTEM SX800

### Camera

Effective sensor size	1/1.8"
Minimum illumination	Color 0.00015lux (at F1.2) / 0.0017lux (at F4.0) B/W 0.0001lux (at F1.2) / 0.0011lux (at F4.0)
Focus settings	Continuous AF, Quick AF, Manual
Iris	Auto, Manual (Aperture range : F4 – F16)
Shutter speed	Auto (with minimum speed selection of 1/8 – 1/125s), Manual (1 – 1/20,000s)
Gain	Manual, AGC, HYPER-AGC (Setting range: ISO400 – 819200)
Optical filter	Visible Light Cut filter (ON / OFF)
Day / Night selection	Auto, Manual
Wavelengths selection	950nm, 940nm, 850nm, 808nm, Visible light
Image stabilization	Auto, 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	Selectable (21 levels)
Contrast	Selectable (5 levels)
Saturation	Selectable (5 levels)
Sharpness	Selectable (5 levels)
White balance	Auto, Custom 1–2, Fine, Shade, Color Temperature (3000K, 5000K, 9000K)
Video output systems	NTSC, PAL
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, External trigger (Day/Night)
Recording format	File recording format : MOV Compression format : H.264 compliant Audio recording format : Linear PCM stereo (48kHz sampling)
RS-485 compatible protocol	Pelco-D / Pelco-P (including extended commands)
Power source	DC12V
Power consumption	9.5W
Supported SD card (SDHC/SDXC)	UHS-1-compatible 8GB+

### Lens

Model name	SX800
Optical zoom	40x
Digital zoom	1.25x
Focal length	20mm – 800mm
Maximum aperture ratio	1:4 (W), 1:7.4 (T)
Angle of view [16:9 (H x V)]	W : 21.0° x 11.8° T : 0.55° x 0.31°

### Network

Network protocols	ICMP, ARP, TCP/IP, UDP/IP, HTTP, HTTPS, FTP, SMTP, DHCP, DNS, NTP, SSL/TLS
Supported OS	Windows 7/10
Supported browser	Chrome71+, IE11
ONVIF support	Yes (Profile S)
Maximum number of connections	13 (simultaneously connected users)

### Miscellaneous

Size (H x W x L)	139mm x 156mm x 410mm
Weight	6.4kg
Filter thread size	M112 x 1mm
Operating environment	Temperature : -10°C - +50°C Humidity: 10% – 80% (no condensation)
Tilt limit	45 degrees upward – 45 degrees downward

The product's design, specifications and exterior appearance are subject to change without notice.

\*Technical information can be downloaded from the website. ▶  
<https://optics.fujifilm.com/security/en/support/>



**FUJIFILM**

**FUJIFILM Optical Devices Europe GmbH**

Fujjistr. 1, 47533 Kleve, Germany

Tel: +49 (0) 2821 / 7115-400, Fax: +49 (0) 2821 / 7115-200

E-mail: [cctv\\_eu@fujifilm.com](mailto:cctv_eu@fujifilm.com)

<http://www.fujifilm.eu/fujinon>