

Product Discontinuation Notices

Product Discontinuation

High-speed Digital CMOS Cameras (Color)

Model FH-SC

High-speed Digital CMOS Cameras (Monochrome)

Model FH-SM

Recommended Replacement

High-speed Digital CMOS Cameras (Color)

Model FH-SCX or

Digital CCD Cameras (Color)

Model FZ-SC

High-speed Digital CMOS Cameras (Monochrome)

Model FH-SMX or

Digital CCD Cameras (Monochrome)

Model FZ-S

[Final order entry date]

The end of September, 2024

[Date of The Last Shipping]

The end of October, 2024

[Scheduled date of maintenance close]

The end of September, 2029

[Caution on recommended replacement]

When using FH-SCX or FH-SMX, improvement in measurement time and improvement of the sensitivity can be expected.

When using FZ-SC or FZ-S, a change in the measurement range of the scene data can be suppressed small because pixels number and the element size are same.

It's different in dimensions, so reconsideration of the installation environment according to the specification of the camera after change, please.

It's different in the function of the camera/performance, so there is a possibility that measurement processing time and the brightness of the picture change according to the use environment of the customer. I would like to ask you to carry out performance verification beforehand in case of use.

When using FH-SCX or FH-SMX, it is needed an upgrade of system software of the controller body (FH series). You can use only Ver after 6.11.

[Difference from discontinued product]

Recommended replacement Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics	Operation ratings	Operation methods
FH-SCX	◎	×	○	◎	×	×	◎
FZ-SC	◎	×	○	◎	×	×	◎
FH-SMX	◎	×	○	◎	×	×	◎
FZ-S	◎	×	○	◎	×	×	◎

** : Compatible

* : The change is a little/Almost compatible




-- : Not compatible

- : No corresponding specification

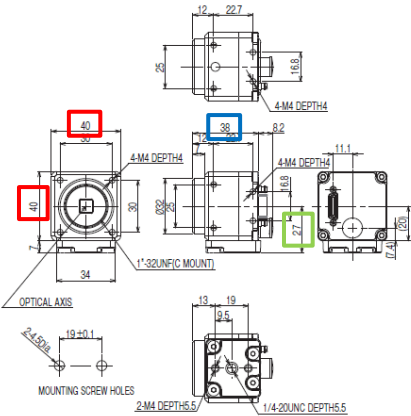
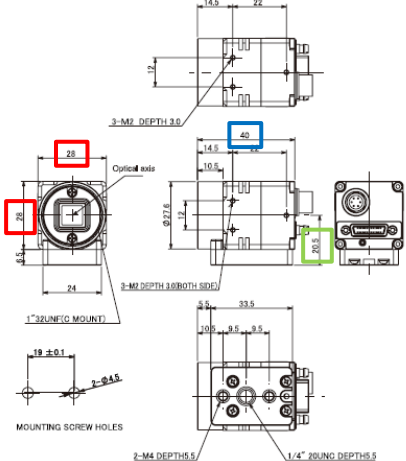
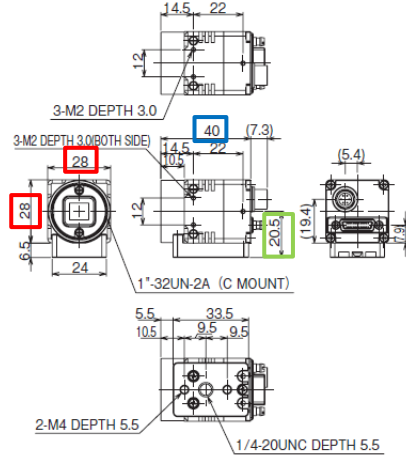
[Product Discontinuation and recommended replacement]

Product discontinuation	Recommended replacement
FH-SC	FH-SCX
	FZ-SC
FH-SM	FH-SMX
	FZ-S

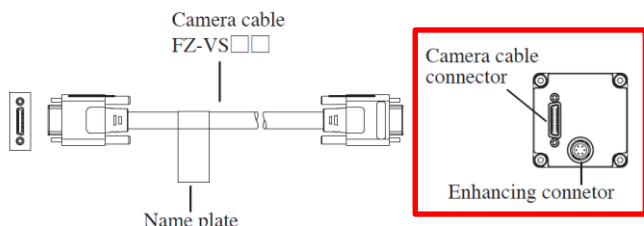
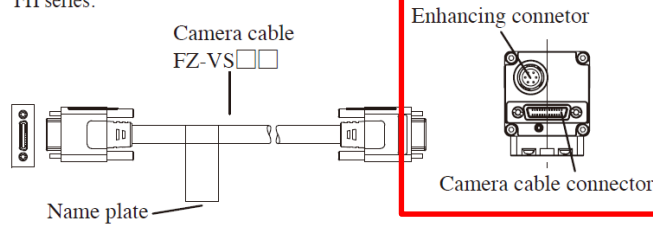
[Body color]

Product discontinuation	Recommendable replacement	
Model FH-SC, FH-SM	Model FH-SCX, FH-SMX	Model FZ-SC, FZ-S
Black 	Black 	Black 

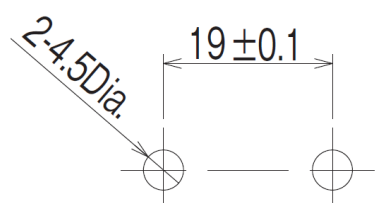
[Wire connection]

Product discontinuation	Recommendable replacement	
Model FH-SC, FH-SM	Model FH-SCX, FH-SMX	Model FZ-SC, FZ-S
<p>⊥ optical axis : 40mm×40mm optical axis : 38mm optical axis – bottom : 27mm</p> 	<p>⊥ optical axis : 28mm×28mm optical axis : 40mm optical axis – bottom : 20.5mm</p> 	<p>⊥ optical axis : 28mm×28mm optical axis : 40mm optical axis – bottom : 20.5mm</p> 

[Mounting dimensions]

Product discontinuation	Recommendable replacement
Model FH-SC, FH-SM	Model FH-SCX, FH-SMX Model FZ-SC, FZ-S
<p>Using the Camera cable FZ-VS□□(sold separately), connect the connector on the back of the camera and the camera connector on Controller FH series.</p>  <p>* The camera cable FZ-VS□□ has polarity. Be sure to connect the side with the name plate on it to the controller.</p>	<p>Change position of connector</p> <p>Using the Camera cable FZ-VS□□(sold separately), connect the connector on the back of the camera and the camera connector on Sensor Controller FH series.</p>  <p>* The camera cable FZ-VS□□ has polarity. Be sure to connect the side with the name plate on it to the controller.</p>

[Dimensions]

Product discontinuation	Recommendable replacement
Model FH-SC, FH-SM	Model FH-SCX, FH-SMX Model FZ-SC, FZ-S
<p>No change</p>  <p>MOUNTING SCREW HOLES</p>	

[Characteristics]
○General specifications

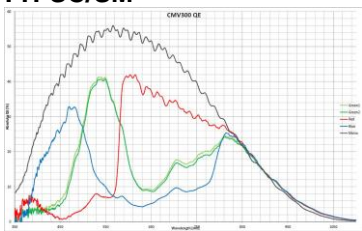
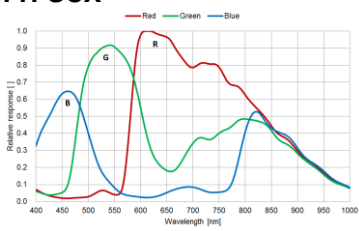
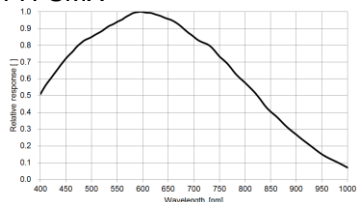
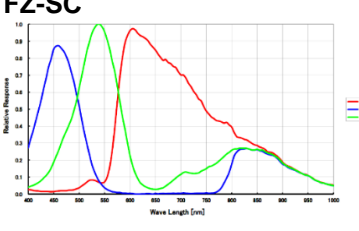
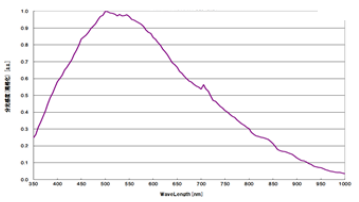
Item	Product discontinuation	Recommendable replacement	
	Model FH-SC, FH-SM	Model FH-SCX, FH-SMX	Model FZ-SC, FZ-S
Power consumption	1.7 W max. (13 VDC)	1.6 W max. (13 VDC)	2.4W max.(12V DC)
Vibration resistance	10 to 150Hz: half-amplitude: 0.35mm:(maximum acceleration: 50m/s ²), 10 times for 8 minutes each in 3 directions		
Shock resistance	Shock resistance 150m/s ² , 3 times each in 6 directions		
Ambient Temperature	Operating: 0 to 40 °C Storage: -25 to 65 °C with no icing nor condensation	Operating: 0 to 50 °C Storage: -25 to 65 °C with no icing nor condensation	
Ambient humidity	Operating and storage: 35% to 85% with no condensation		
Ambient environment	No corrosive gases		
Degree of protection	IEC60529 IP40 (in-panel)	IEC60529 IP40 (in-panel)	IEC60529 IP20 (in-panel)
Center positional accuracy of optical axis	X,Y: ±0.31mm θ X, θ Y: ±1.7°	X,Y: ±0.30mm θ X, θ Y: ±1.5°	X,Y: ±0.31mm θ X, θ Y: ±2.1°
Materials	Case: Aluminum Camera base: PC/GF Mount screw: brass	Case: Aluminum Camera base: PC/ABS Mount screw: brass	
Weight	Approx.105 g (including base)	Approx.48 g (including base)	Approx.55 g (including base)
Accessories	•Instruction Sheet •General Compliance Information and Instructions for EU High speed mode: 5 m max. Standard mode: Using FZ-VS4: 15 m max. Using a dedicated product other than FZ-VS4: 10 m max.		
Cable length	Standard mode: 15m max *Only Standard mode	Standard mode: 15m max High-speed mode: 5m max	Standard mode: 15m max *Only Standard mode

○Performance specifications

Item	Product discontinuation	Recommendable replacement	
	Model FH-SC, FH-SM	Model FH-SCX, FH-SMX	Model FZ-SC, FZ-S
Image element	1/3 inch CMOS	1/2.9 inch CMOS	1/3 inch CCD
Effective pixels	640(H) × 480(V)	720(H)×540(V)	640(H) × 480(V)
Pixel size	7.4(μm) × 7.4(μm)	6.9(μm)×6.9(μm)	7.4(μm) × 7.4(μm)
Scanning method	Progressive		
Shutter type	Global shutter		
Synchronization	Internal Sync.		
Frame rate	Standard mode: 308 fps *Only Standard mode	Standard mode: 261.7fps High-speed mode: 523.6fps	Standard mode: 80fps *Only Standard mode
Partial function	4 to 480 lines (2 lines each)	4 to 540 lines (4 lines each)	12 to 480 lines (2 lines each)
Video output	Digital 8bits		Digital 10bit

Item	Product discontinuation	Recommendable replacement	
	Model FH-SC, FH-SM	Model FH-SCX, FH-SMX	Model FZ-SC, FZ-S
Gain	x1 ~ x5 (Digital gain)	0 ~ 24dB (Analog Gain)	FZ-SC 0 ~ +13dB (Analog Gain) FZ-S 0 ~ +20dB (Analog Gain)
Shutter speed	20μs ~ 100,000μs	1μs ~ 100,000μs	20μs ~ 100,000μs
Lens mounting	C mount (Recommended Mode : 3Z4S-LE SV-V Series)		

[Operation ratings]

Item	Product discontinuation	Recommendable replacement	
	Model FH-SC, FH-SM	Model FH-SCX, FH-SMX	Model FZ-SC, FZ-S
Spectral sensitivity characteristics	FH-SC/SM 	FH-SCX  FH-SMX 	FZ-SC  FZ-S 
Mirror an image	With function	With function	Without function
Multi-slope	With function (Only monochrome)	Without function	Without function
Binning setting	With function (Only monochrome)	Without function	With function (Only monochrome)

[Operation methods]

Product discontinuation	Recommendable replacement
Model FH-SC, FH-SM	Model FH-SCX, FH-SMX Model FZ-SC, FZ-S
No change For details on the operation method, refer to the following manual. • Vision System User's Manual (Z365) • Vision System Hardware Setup Manual (Z366) • Vision System Processing Item Function Reference Manual (Z341)	

Specifications and prices in this product news are as of the issue date and are subject to change without notice.
 Only main changes in specifications are described in this document. Please be sure to read the relevant catalogs, datasheets, product specifications, instructions, and manuals for precautions and necessary information when using products.