

## Product Discontinuation Notices

Code Readers / OCR

Issue Date  
March 2, 2015

No. 2015027CE

**Discontinuation Notice of 2D Code Reader (Fixed Type) V530-R160/R2000 series and the peripherals F150-□□□□-2D and F160-S2-2D.**

### Product Discontinuation

2D Code Reader (For punch marking)

**Model V530-R160 series**

**Model F150-S1A-2D**

**Model F150-M05L-2D**

**Model F150-KP-2D**

**Model F150-VS-2D**

**Model F150-VM-2D**

2D Code Reader (High performance type)

**Model V530-R2000 series**

**Model F160-S2-2D**



### Recommended Replacement

Smart Camera

**Model FQ2-S4□□□□□-M**

No recommended replacement

No recommended replacement

No recommended replacement

No recommended replacement

No recommended replacement

Name of products

**Model FQ2-S4□□□□□-M**

No recommended replacement

#### [ Discontinuation date ]

The end of March, 2016

#### [ Caution on recommended replacement ]

The peripherals (Camera and Cable etc.) can not be used in the replacement model FQ2 series.  
And so, please replace the whole system.

#### [ Difference from discontinued product ]

Recommended replacement Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics	Operation ratings	Operation methods
FQ2-S4□□□□□-M	--	--	--	--	--	--	--

\*\* : Compatible

\* : The change is a little/Almost compatible



-- : Not compatible


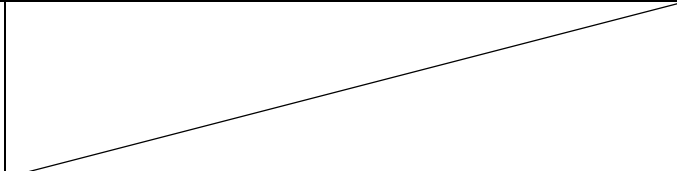
- : No corresponding specification


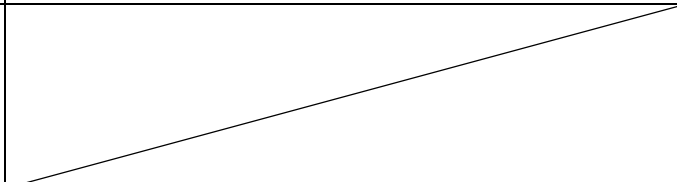
**[ Product Discontinuation and recommended replacement ]**


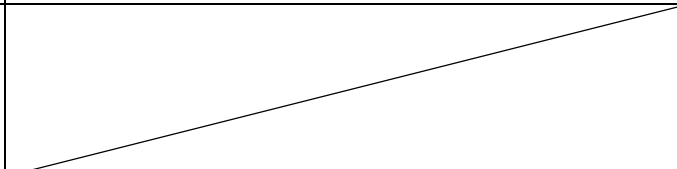
Product discontinuation	Recommended replacement
V530-R160	FQ2-S40010F-M
	FQ2-S40050F-M
	FQ2-S40100F-M
	FQ2-S40100N-M
V530-R160E	FQ2-S40010F-M
	FQ2-S40050F-M
	FQ2-S40100F-M
	FQ2-S40100N-M
V530-R160EP	FQ2-S45010F-M
	FQ2-S45050F-M
	FQ2-S45100F-M
	FQ2-S45100N-M
V530-R2000	FQ2-S40010F-M
	FQ2-S40050F-M
	FQ2-S40100F-M
	FQ2-S40100N-M
V530-R2000P	FQ2-S45010F-M
	FQ2-S45050F-M
	FQ2-S45100F-M
	FQ2-S45100N-M
F160-S2-2D	No recommended replacement
F150-S1A-2D	No recommended replacement
F150-M05L-2D	No recommended replacement
F150-KP-2D 2M	No recommended replacement
F150-KP-2D 5M	No recommended replacement
F150-KP-2D 10M	No recommended replacement
F150-VS-2D 3M	No recommended replacement
F150-VS-2D 5M	No recommended replacement
F150-VS-2D 10M	No recommended replacement
F150-VS-2D 15M	No recommended replacement
F150-VS-2D 20M	No recommended replacement
F150-VS-2D 25M	No recommended replacement
F150-VS-2D 30M	No recommended replacement
F150-VM-2D 2M	No recommended replacement

[ Body color ]

<p><b>Product discontinuation</b> Model V530-R160 / R2000 series</p>	<p><b>Recommendable replacement</b> Model FQ2-S4□□□□□-M</p>
<p>Model V530-R160□□      Model V530-R2000□</p> 	

<p><b>Product discontinuation</b> Model F160-S2-2D / F150-S1A-2D</p>	<p><b>Recommendable replacement</b> No recommended replacement</p>
	

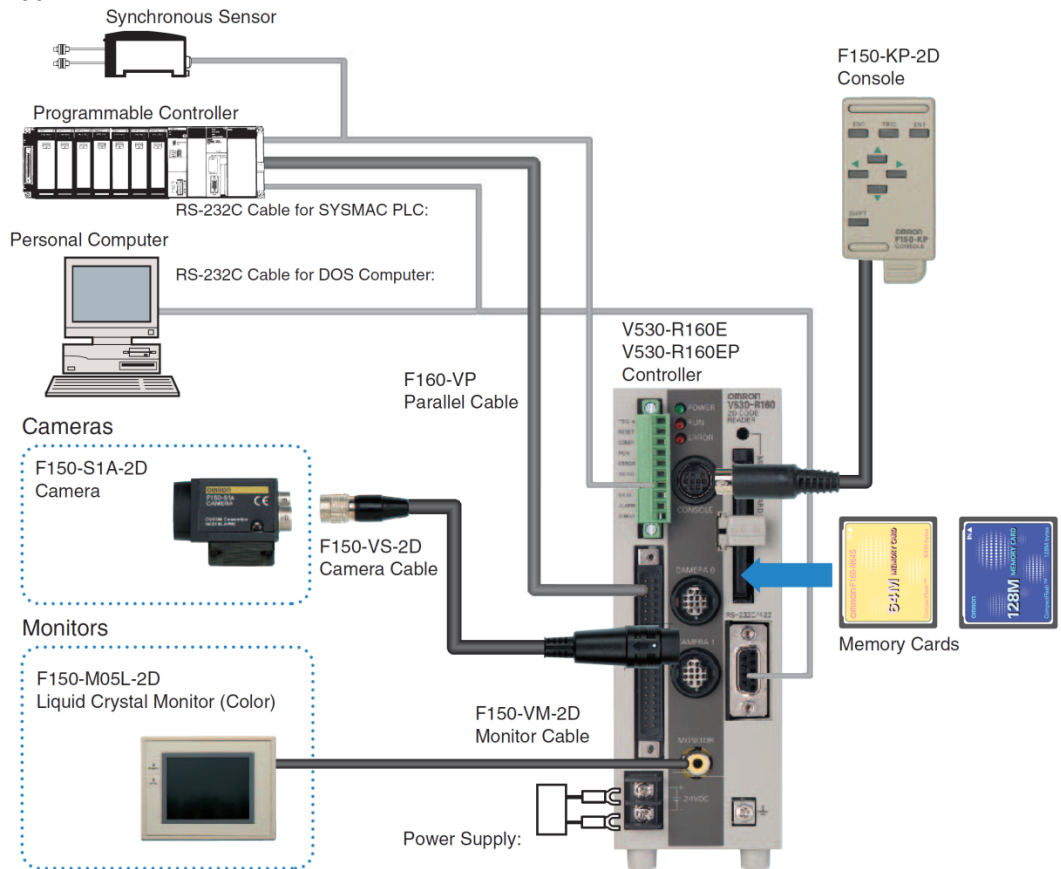
<p><b>Product discontinuation</b> Model F150-M05L-2D</p>	<p><b>Recommendable replacement</b> No recommended replacement</p>
	

<p><b>Product discontinuation</b> Model F150-KP-2D</p>	<p><b>Recommendable replacement</b> No recommended replacement</p>
	

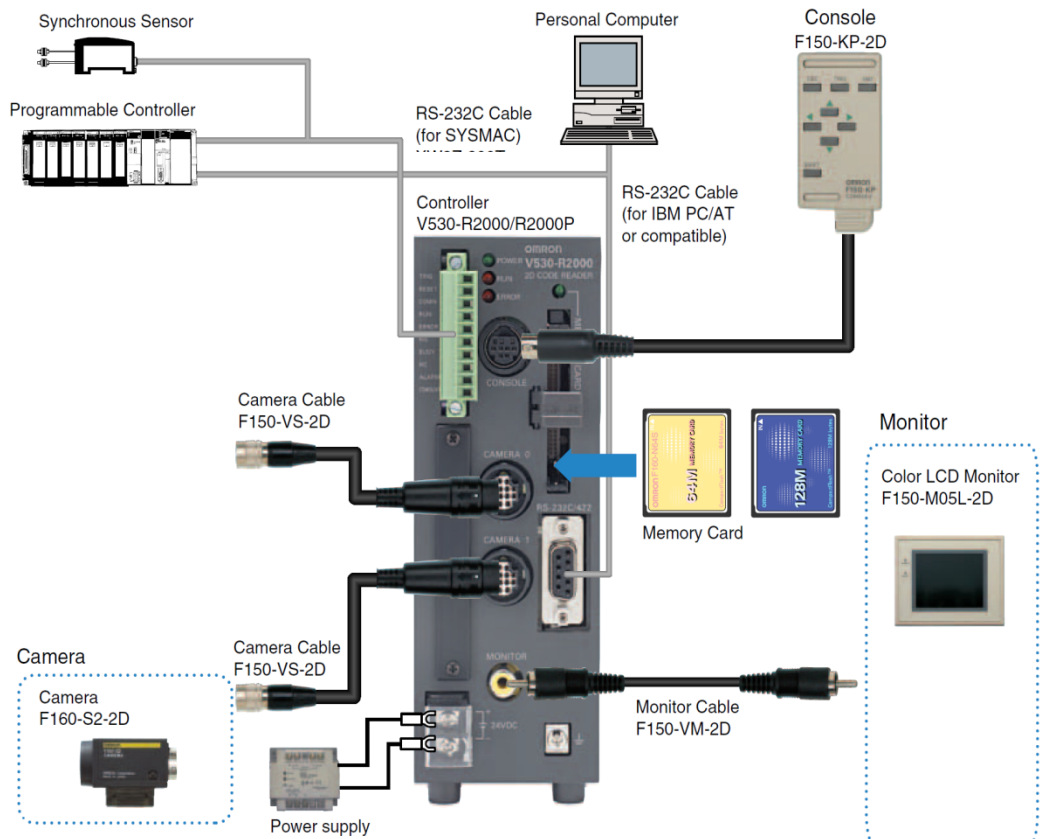
[ Wire connection ]

**Product discontinuation**  
**Model V530-R160 / R2000 series**

**V530-R160/R160E/R160EP**

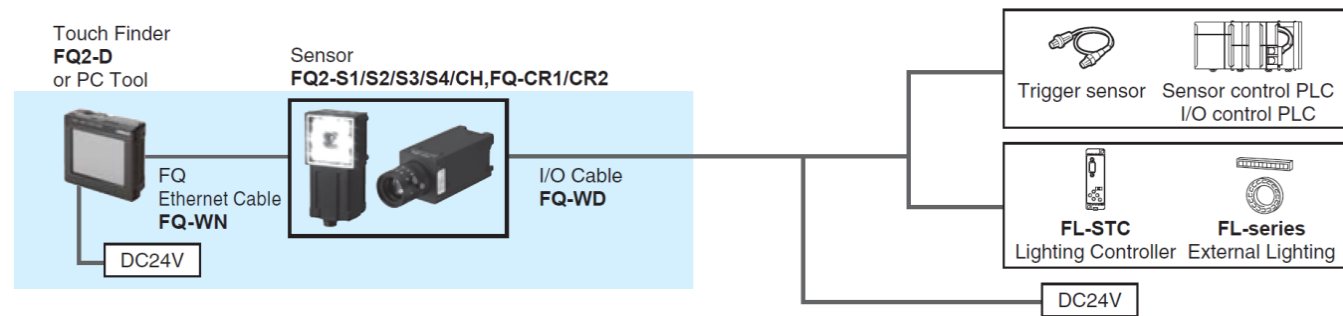


**V530-R2000/R2000P**

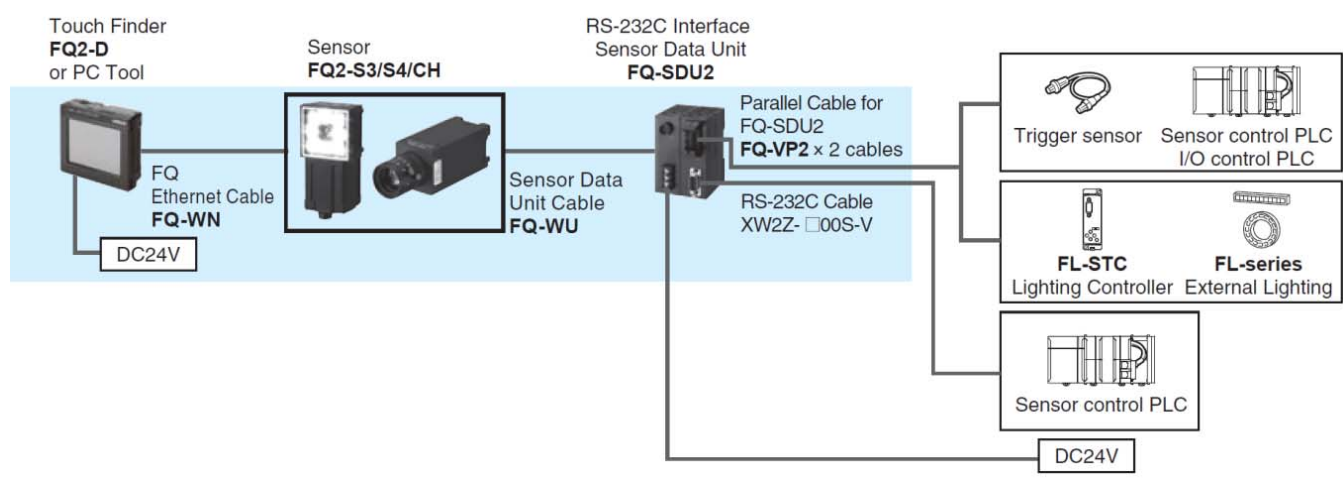


**Recommendable replacement  
Model FQ2-S4□□□□□-M**

**Parallel Interface Connection**

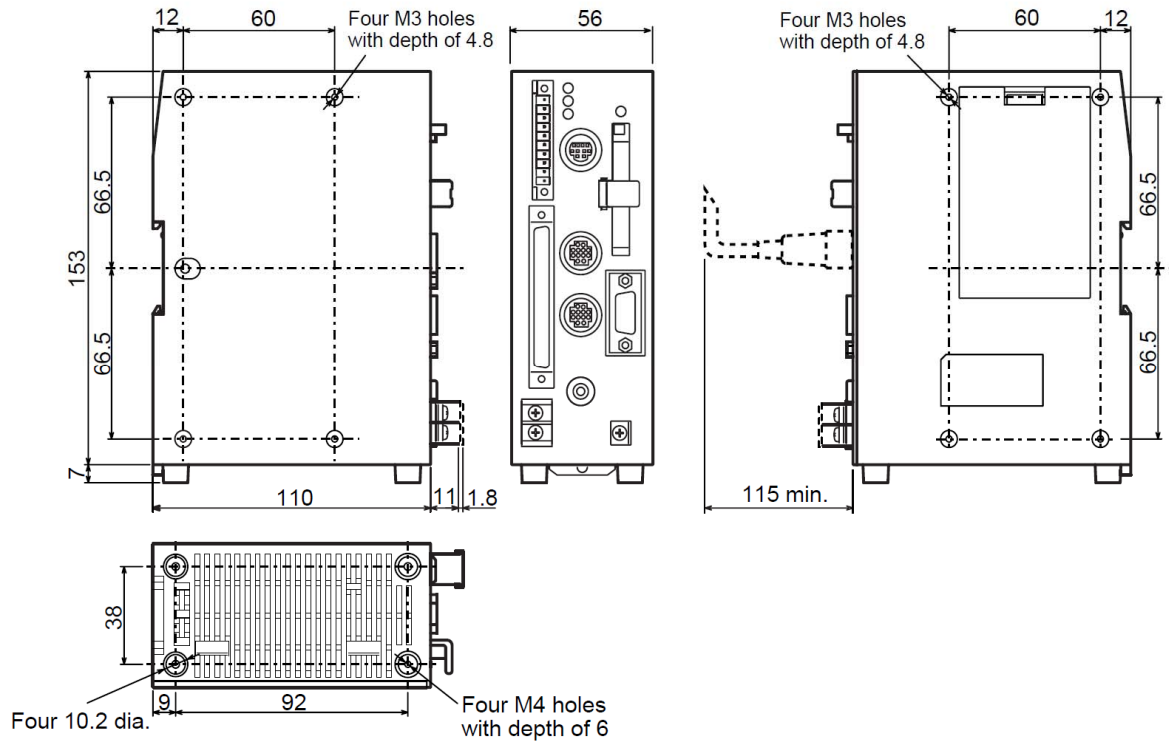


**RS-232C Serial Connection**



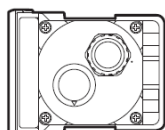
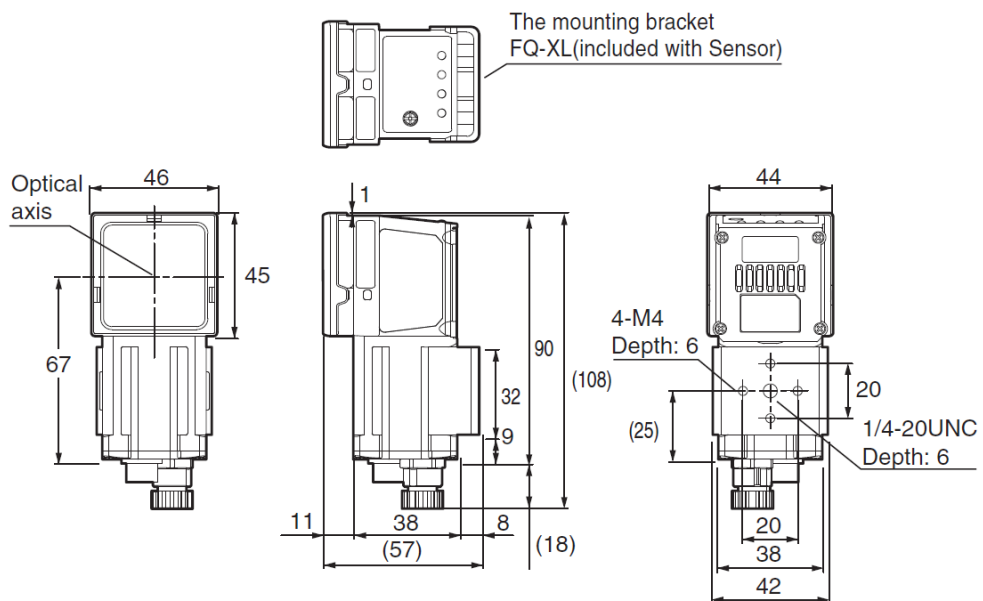
[ Dimensions ]

Product discontinuation  
Model V530-R160[ ]/[R2000]

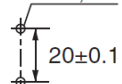


**Recommendable replacement  
Model FQ2-S4□□□□□-M**

**Narrow View: FQ2-S4□□10F-M  
Standard View: FQ2-S4□□50F-M**

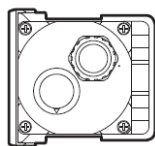
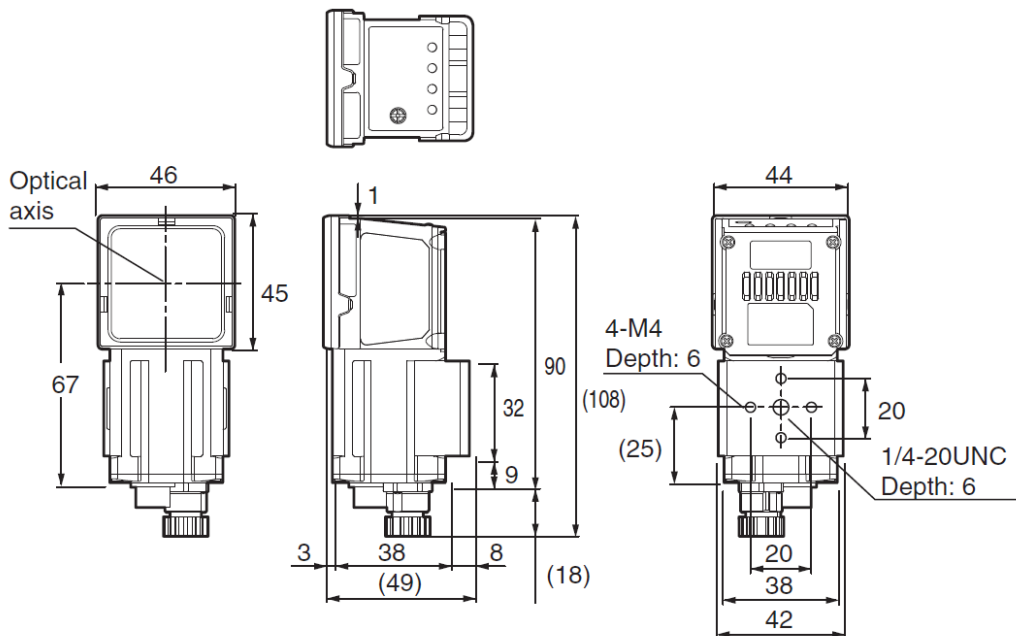


Mounting hole dimensions  
Two, 4.5 dia.

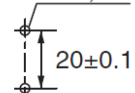


Tightening torque: 1.2 N·m

**Wide View: FQ2-S4□100□-M**



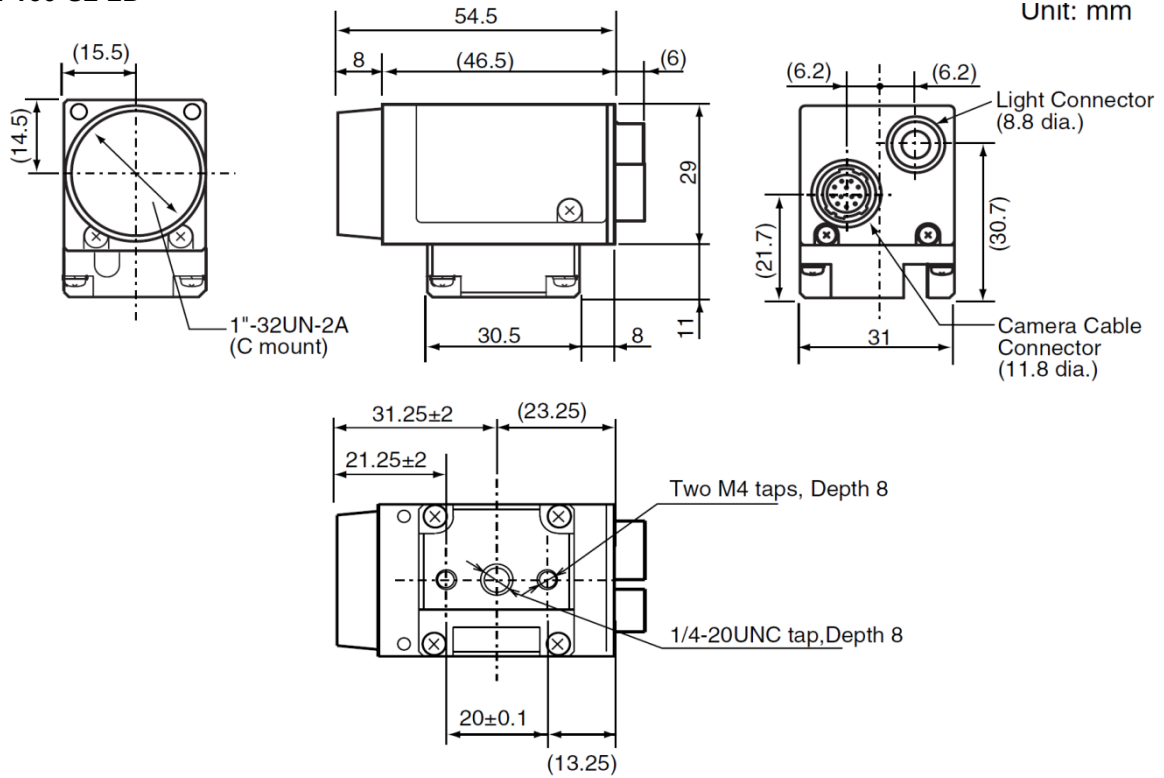
Mounting hole dimensions  
Two, 4.5 dia.



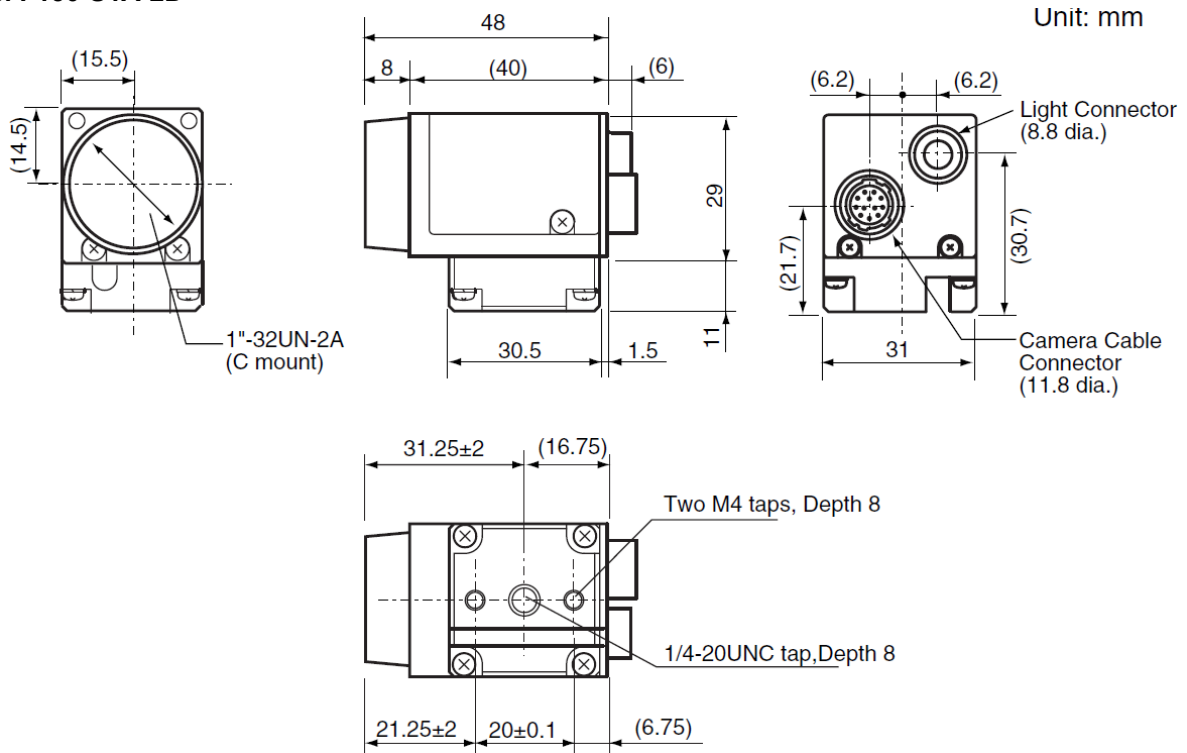
Tightening torque: 1.2 N·m

**Product discontinuation**  
**Model F160-S2-2D / Model F150-S1A-2D**

**Model F160-S2-2D**



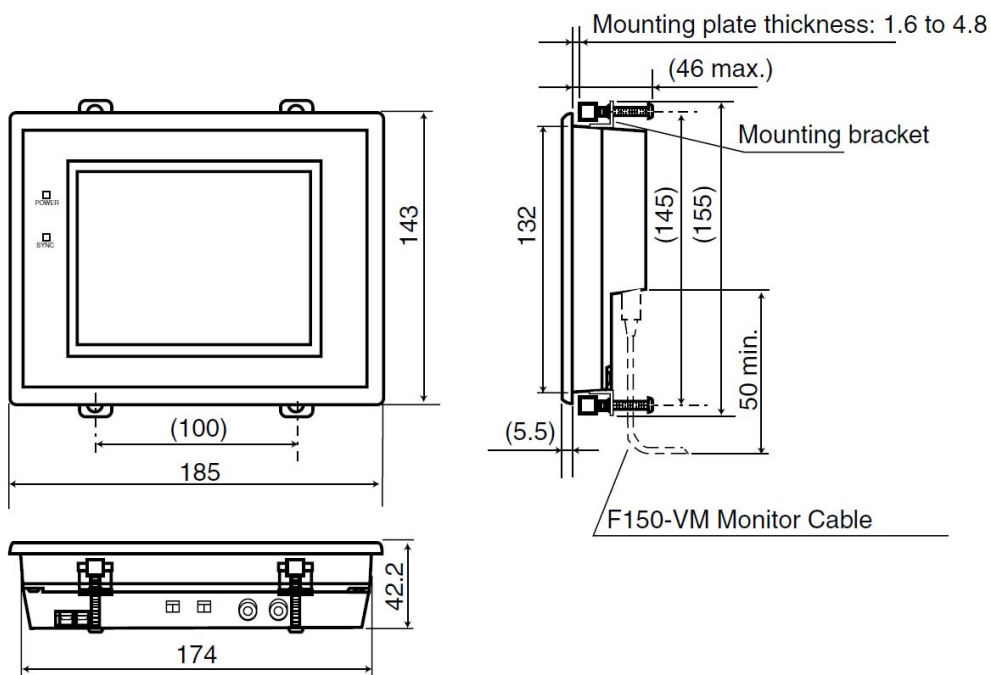
**Model F150-S1A-2D**



**Recommendable replacement**  
**No recommended replacement**



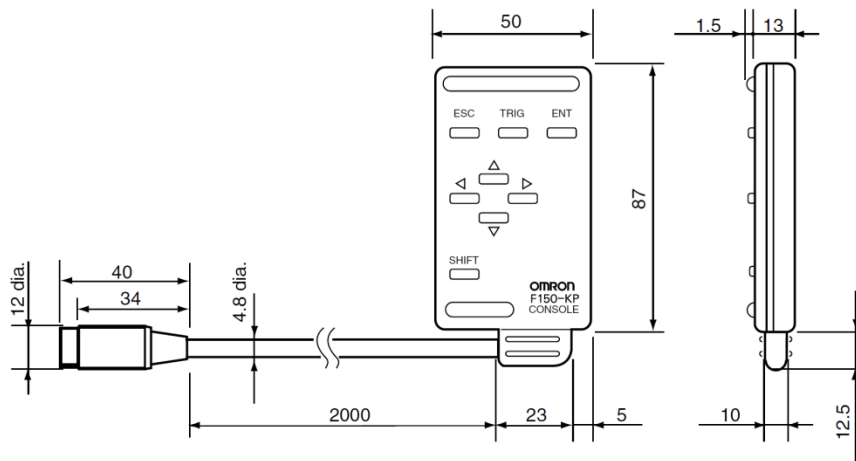
**Product discontinuation**  
**Model F150-M05L-2D**



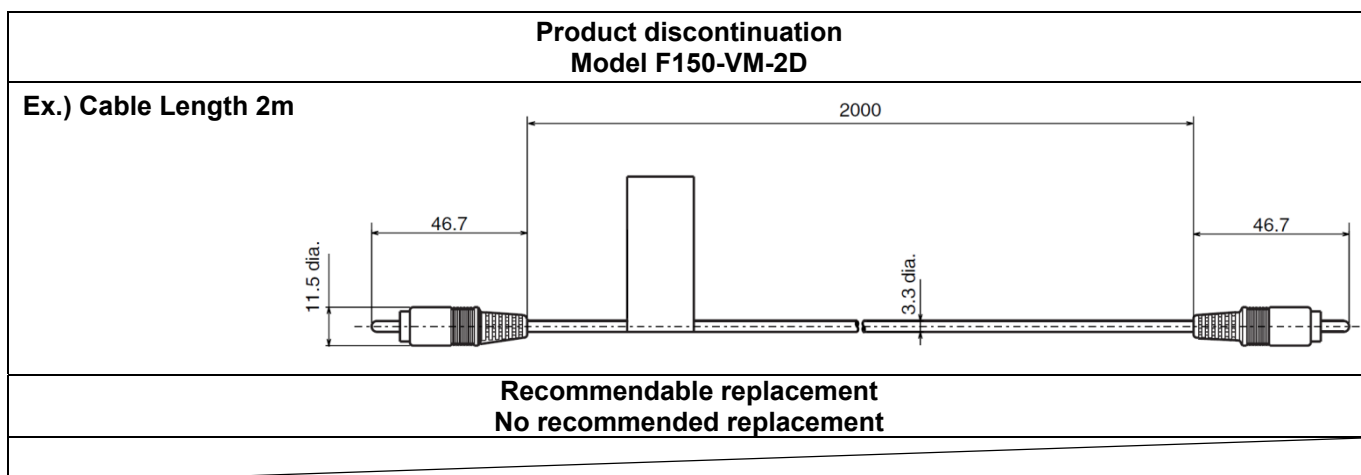
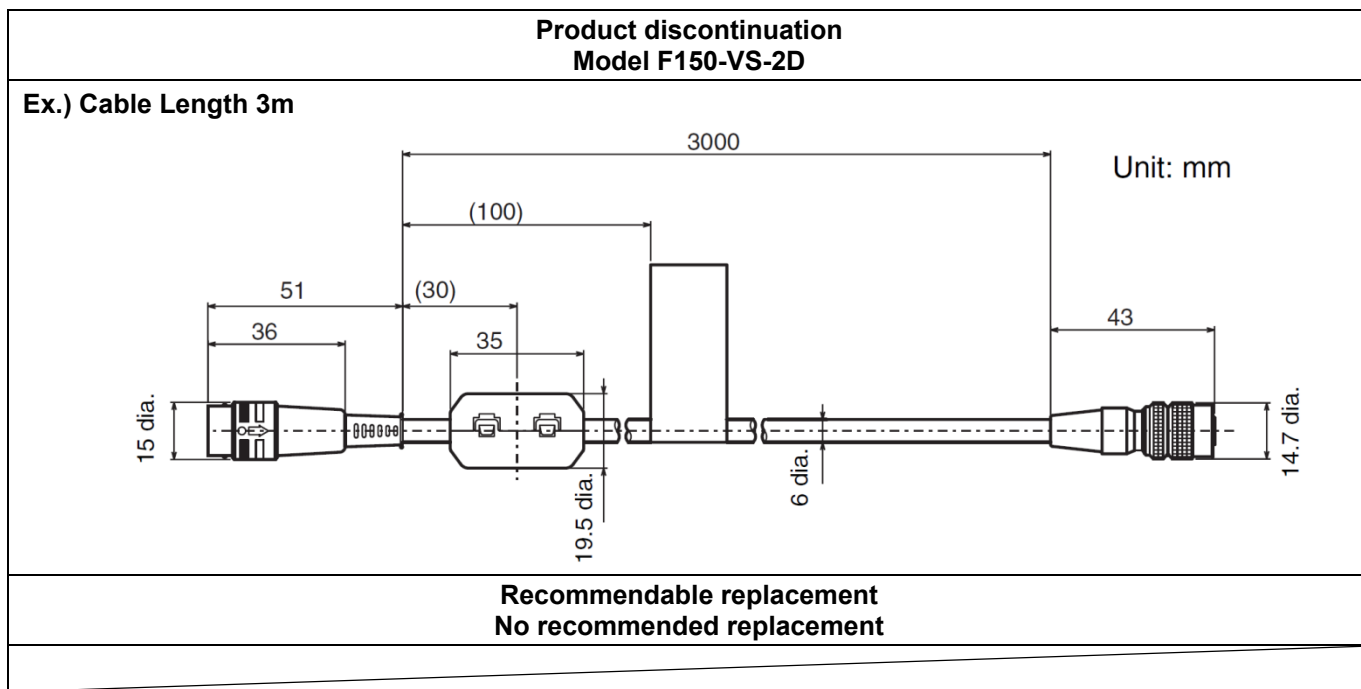
**Recommendable replacement**  
**No recommended replacement**

**Product discontinuation**  
**Model F150-KP-2D**

**Cable Length : 2m**



**Recommendable replacement**  
**No recommended replacement**



**[ Mounting dimensions ]**

Recommendable replacement				
Field of view	Narrow View	Standard View	Wide View (Long-distance)	Wide View (Short-distance)
Number of pixels	350,000 pixels			
NPN	FQ2-S40010F-M	FQ2-S40050F-M	FQ2-S40100F-M	FQ2-S40100N-M
PNP	FQ2-S45010F-M	FQ2-S45050F-M	FQ2-S45100F-M	FQ2-S45100N-M
Field of view/Installation distance				

[ Characteristics ]

Item		Product discontinuation		Recommendable replacement
I/O Type	NPN	V530-R160/R160E	V530-R2000	FQ2-S40□□□□-M
	PNP	V530-R160EP	V530-R2000P	FQ2-S45□□□□-M
<b>Applicable 2D codes</b>		Data Matrix ECC200: 10×10 to 64×64, 8×18, 8×32, 12×26, 12×36, 16×36, 16×48 Data Matrix (ECC000, ECC050, ECC080, ECC100, ECC140): 9×9 to 25×25 QR Code (Model 1, 2): 21×21 to 41×41 (Version 1 to 6)	Data Matrix ECC200 10×10 to 64×64, 8×18 to 16×48, QR Code (Model 1, 2) Ver.1 to 10	Data Matrix (EC200), QR Code, Micro-QR Code, PDF417, MicroPDF417, GS1-DataMatrix
<b>Inspection items</b>		-		Search, shape search II, sensitive search, area, color data, edge position, edge pitch, edge width, labeling. OCR, Bar code, 2D-code, 2D-code (DMP), and Model dictionary
<b>No. simultaneous measurements</b>		-		32
<b>Readable direction</b>		360°		Position compensation (360° Model position compensation, Edge position compensation)
<b>Image elements</b>		-		1/3-inch Monochrome CMOS
<b>Shutter</b>		-		Built-in lighting ON: 1/250 to 1/50,000s
<b>Lighting method</b>		-		Pulse
<b>Lighting color</b>		-		White
<b>Processing resolution</b>		512 (H) × 484 (V)		752 (H) × 480 (V)
<b>No. connectable cameras</b>		2 max.		-
<b>Connectable camera</b>		F150-S1A-2D	F160-S2-2D	-
<b>Image memory function</b>		Maximum of 35 images stored (internal memory in Controller).		In Sensor: 20 images (If a Touch Finder is used, images can be saved up to the capacity of an SD card.)
<b>Operation method</b>		Selected from menu.		
<b>Processing method</b>		Monochrome Gray		
<b>CF Card I/F</b>		1 slot		-
<b>Monitor I/F</b>		Composite video output: 1 channel (Monochrome/Color)		-
<b>Ethernet specifications</b>		-		100BASE-TX/10BASE-T
<b>Serial communications</b>		RS-232C/422A 1ch		Possible by connecting FQ-SDU2_ Sensor Data Unit.
<b>Parallel I/O</b>		5 inputs and 6 outputs	2 inputs 5 outputs	Possible by connecting FQ-SDU1_ Sensor Data Unit.
<b>Power supply voltage</b>		20.4 to 26.4 VDC		21.6 to 26.4 VDC (including ripple)
<b>Current consumption</b>		Approx. 1.6 A max.		Approx. 2.4 A max.
<b>Ambient Temperature</b>		Operating: 0 to 50°C; Storage: -25 to 65°C (with no icing or condensation)		Operating: 0 to 40°C; Storage: -25 to 65°C (with no icing or condensation)
<b>Ambient humidity</b>		Operating and storage: 35% to 85% (with no condensation)		
<b>Weight</b>		Approx. 570 g		Narrow View/Standard View:Approx.160 g Wide View:Approx.150 g

Item	Product discontinuation		Recommendable replacement No recommended replacement
	Model	F160-S2-2D	
Color/Monochrome	Monochrome		
Current consumption	Approx. 1.7 W Max.	Approx. 1.2 W Max.	
Vibration resistance	10 to 150 Hz, one-side amplitude 0.35 mm (Max. acceleration 50 m/s <sup>2</sup> ) 10 times for 8 minutes for each three directions		
Shock resistance	150 m/s <sup>2</sup> : 3 times each in 6 directions		
Ambient temperature	Operating: 0 to 50°C; Storage: -25 to 65°C (with no icing or condensation)		
Ambient humidity	Operating and storage: 35% to 85% (with no condensation)		
Materials	Cover: Galvanized steel sheet metal Case: Die-cast aluminum alloy Camera mounting base: Fiber-reinforced plastic (black)		
Picture element	1/3-inch interline CCD (reading all pixels)		
Effective pixels	659 (H) × 494 (V)		
Synchronization	External sync. via horizontal sync signal		
Shutter speed (Electronic shutter)	1/120, 1/200, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/20000s	1/100, 1/500, 1/2000, 1/10000s	
Partial function	Supported	Not supported	
Lens mounting	C mount		
Weight	Approx. 85 g	Approx. 80 g	

Item	Product discontinuation		Recommendable replacement No recommended replacement
	F150-M05L-2D		
Panel size	5.7 inches		
Panel type	TFT color liquid crystal		
Resolution	640 × 480 dots		
Contrast	850: 1 (typical)		
Viewable angle	80° up/down and 60° left/right (with a contrast ratio > 10:1)		
Luminance	400 cd/m <sup>2</sup> (typical)		
Backlight	White LED		
Input signal	NTSC composite video (1.0 V/75 Ω termination)		
Power supply voltage	20.4 to 26.4 VDC		
Current consumption	Approx. 0.7 A Max.		
Vibration resistance	10 to 150 Hz; half-amplitude: 0.1 mm; maximum acceleration: 15 m/s <sup>2</sup> , 10 times for 8 minutes each in 3 directions		
Ambient temperature range	Operating: 0 to 50°C (with no condensation) Storage: -25 to 65°C (with no condensation)		
Ambient humidity range	35% to 85% (with no condensation)		
Degree of protection	IEC60529 IP20 (in-panel)		
Materials	Case: ABS/PC, Display surface: PMMA (Acrylic)		
Weight	Approx. 1 kg		

Item	Product discontinuation	Recommendable replacement
	F150-KP-2D	No recommended replacement
Vibration resistance	10 to 150 Hz; half-amplitude: 0.15 mm; 4 times for 8 minutes each in 3 directions	
Shock resistance	196 m/s <sup>2</sup> ; 3 times each in 6 directions	
Ambient temperature range	Operating: 0 to 50°C (with no condensation) Storage: -25 to 65°C (with no condensation)	
Ambient humidity range	35% to 85% (with no condensation)	
Ambient environment	No corrosive gases	
Degree of protection	IEC60529 IP20 (in-panel)	
Minimum bending radius	75 mm	
Materials	Body: ABS Cable sheathing: Heat-resistant chlorinated vinyl Connector: PC and PBT	
Weight	Approx. 135 g	

Item	Product discontinuation	Recommendable replacement
	F150-VS-2D	No recommended replacement
Vibration resistance (durability)	10 to 150 Hz; half-amplitude: 0.15 mm, 4 times for 8 minutes each in 3 directions	
Ambient temperature range	Operating: 0 to 50°C; Storage: -25 to 65 °C (with no condensation)	
Ambient humidity range	Operation and storage: 35 to 85%RH (with no condensation)	
Ambient atmosphere	No corrosive gases	
Material	Cable sheathing: Heat-resistant PVC Connector: PC(GF), PBT	
Minimum bending radius	75 m	
Weight	3 m: Approx. 170 g	

Item	Product discontinuation	Recommendable replacement
	F150-VM-2D	No recommended replacement
Vibration resistance (durability)	10 to 150 Hz; half-amplitude: 0.15 mm, 4 times for 8 minutes each in 3 directions	
Ambient temperature range	Operating: 0 to 50°C; Storage: -25 to 65 °C (with no condensation)	
Ambient humidity range	Operation and storage: 35 to 85%RH (with no condensation)	
Ambient atmosphere	No corrosive gases	
Materials	Cable sheathing: Heat-resistant chlorinated vinyl Connector: PVC	
Minimum bending radius	50 mm	
Weight	2 m : Approx. 40 g	
Accessories	BNC Jack Adapter	

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.