

### Product Discontinuation

Picking Sensor

**F3W-E032 series**  
**F39-LE series**



### Recommended Replacement

Picking Sensor

**F3W-D052 series**  
**F39-L1 series**



#### [ Final order entry date ]

The end of June, 2025.

#### [ Date of The Last Shipping ]

The end of September, 2025.

#### [ Caution on recommended replacement ]

When replacing, please assess the impact on actual application based on the differences between the terminated product and the recommended replacement product.

Number of cores for connector cable type 4-core→5 core , please refer to the following records for specific differences.

#### [ Difference from discontinued product ]

Recommended replacement Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics	Operation ratings	Operation methods
F3W-D052A 2M	*	--	--	--	*	*	*
F3W-D052AP 2M	*	--	--	--	*	*	*
F3W-D052B 1M	*	--	--	--	*	*	*
F3W-D052BP 2M	*	--	--	--	*	*	*
F3W-D052C 5M	*	--	--	--	*	*	*
F3W-D052CP 5M	*	--	--	--	*	*	*
F3W-D052D 1M	*	--	--	--	*	*	*
F3W-D052DP 2M	*	--	--	--	*	*	*
F3W-D052A 5M	*	--	--	--	*	*	*
F3W-D052AP 5M	*	--	--	--	*	*	*
F39-L11	*	--	-	--	-	-	-
F39-L10	*	--	-	--	-	-	-
F39-L12	*	--	-	--	-	-	-

\*\* : Compatible

\* : The change is a little/Almost compatible



-- : Not compatible

- : No corresponding specification

**[ Product Discontinuation and recommended replacement ]**

Product discontinuation	Recommended replacement
F3W-E032A6 2M	F3W-D052A 2M F3W-D052AP 2M
F3W-E032B6 0.3M	F3W-D052B 1M F3W-D052BP 2M
F3W-E032A8 2M	F3W-D052C 5M F3W-D052CP 5M
F3W-E032B8 0.3M	F3W-D052D 1M F3W-D052DP 2M
F3W-E032A6 5M	F3W-D052A 5M F3W-D052AP 5M
F3W-E032A8 5M	F3W-D052C 5M F3W-D052CP 5M
F39-LE1	F39-L11
F39-LE2	F39-L10
F39-LE3	F39-L12

[ Body color ]

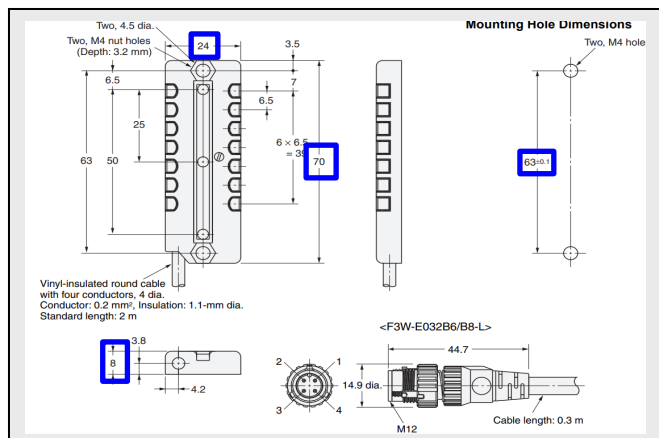
<p>Product discontinuation</p> <p>Model F3W-E032A6</p> <p>Model F3W-E032A8</p> <p>Model F3W-E032B6</p> <p>Model F3W-E032B8</p>	<p>Recommendable replacement</p> <p>Model F3W-D052A(P)</p> <p>Model F3W-D052C(P)</p> <p>Model F3W-D052B(P)</p> <p>Model F3W-D052D(P)</p>
<p>Overall appearance</p>  A photograph of two discontinued Omron F3W-E032 series photoelectric sensors. They are white, rectangular units with a black sensor window and a cable attached to the bottom.	<p>Overall appearance</p>  A photograph of two recommended replacement Omron F3W-D052 series photoelectric sensors. They are white, rectangular units with a black sensor window and a cable attached to the bottom.

# [ Dimensions • External dimensions ]

**Product discontinuation**  
**Model F3W-E032A6**  
**Model F3W-E032A8**  
**Model F3W-E032B6**  
**Model F3W-E032B8**

## Emitter

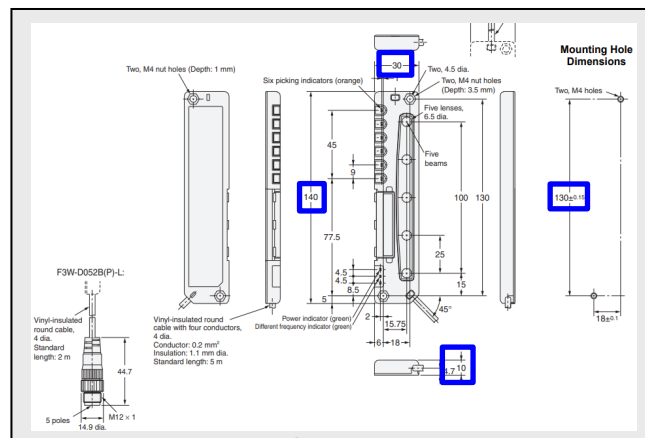
External dimensions: 70mm\*24mm\*8mm  
 Mounting Hole Dimensions: 63mm



**Recommendable replacement**  
**Model F3W-D052A(P)**  
**Model F3W-D052C(P)**  
**Model F3W-D052B(P)**  
**Model F3W-D052D(P)**

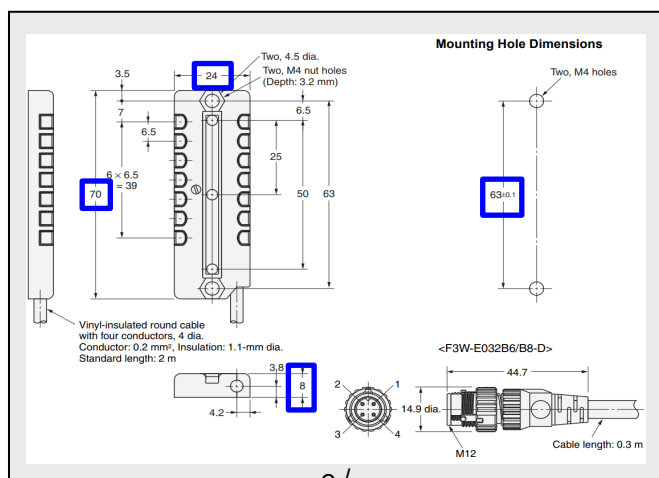
## Emitter

External dimensions: 140mm\*30mm\*10mm  
 Mounting Hole Dimensions: 130mm



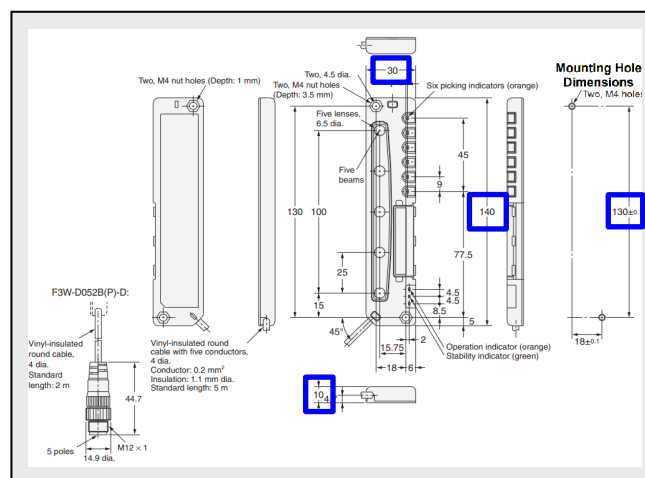
## Receiver

External dimensions: 70mm\*24mm\*8mm  
 Mounting Hole Dimensions: 63mm

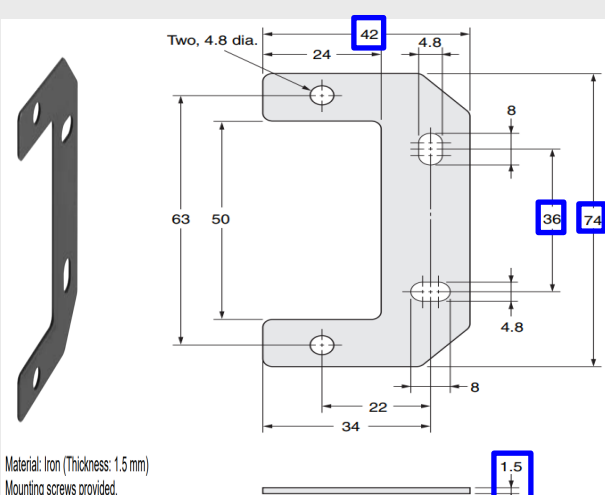
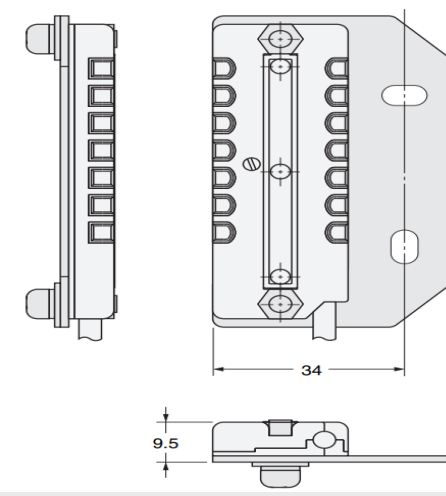
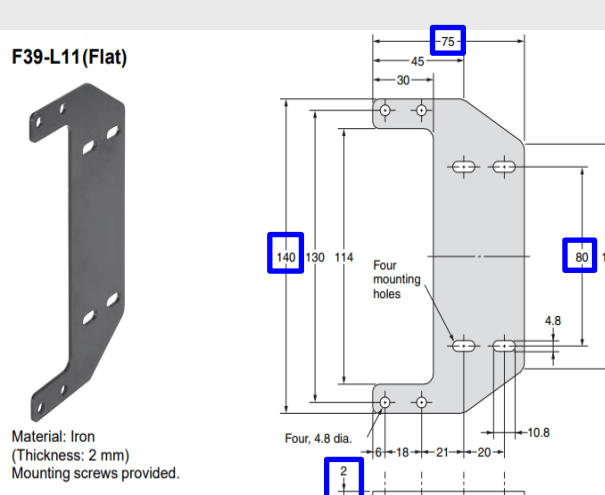
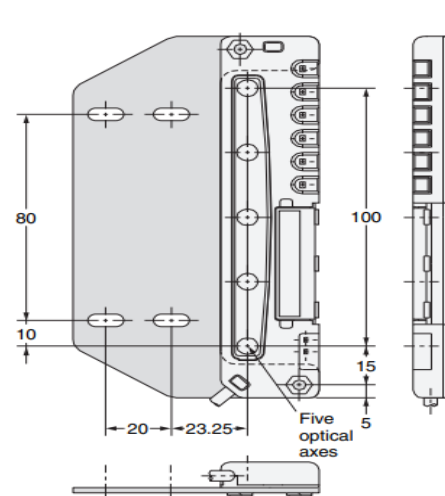


## Receiver

External dimensions: 140mm\*30mm\*10mm  
 Mounting Hole Dimensions: 130mm



[ Dimensions • External dimensions(continued) ]

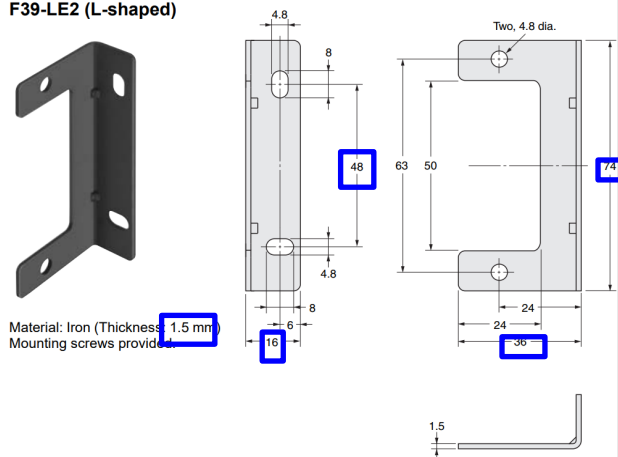
<p><b>Product discontinuation</b>  <b>Model F39-LE1</b>  <b>Model F39-LE2</b>  <b>Model F39-LE3</b></p>	<p><b>Recommendable replacement</b>  <b>Model F39-L11</b>  <b>Model F39-L10</b>  <b>Model F39-L12</b></p>
<p><b>F39-LE1</b>  L*W*H=74mm*42mm*1.5mm  Mounting Hole Dimensions: 36mm</p>  <p>Material: Iron (Thickness: 1.5 mm)  Mounting screws provided.</p> <p><b>F3W-E032A□-D with Mounting Bracket</b></p> 	<p><b>F39-L11</b>  L*W*H=140mm*75mm*2mm  Mounting Hole Dimensions: 80mm</p>  <p>Material: Iron  (Thickness: 2 mm)  Mounting screws provided.</p> <p><b>Mounting Bracket Attached</b></p> 

**Product discontinuation**  
**Model F39-LE1**  
**Model F39-LE2**  
**Model F39-LE3**

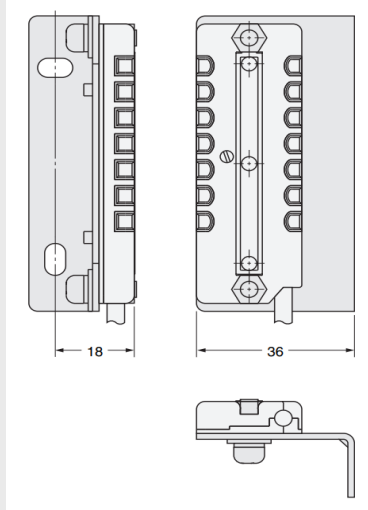
**F39-LE2**

L\*W\*H=74mm\*36mm\*16mm, T=1.5mm  
 Mounting Hole Dimensions: 48mm

**Mounting Brackets**  
**F39-LE2 (L-shaped)**



**F3W-E032A□-D with Mounting Bracket**

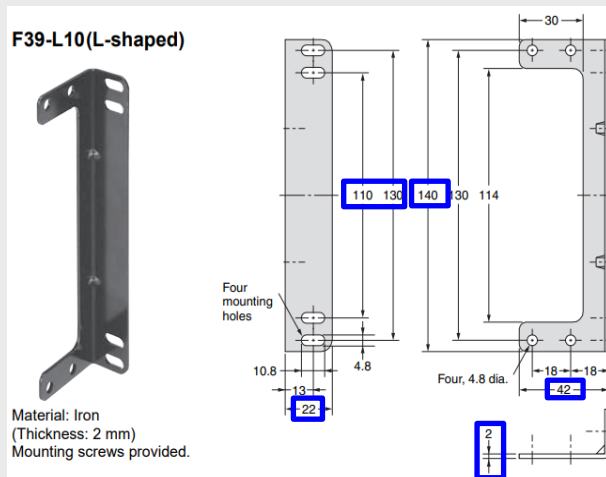


**Recommendable replacement**  
**Model F39-L11**  
**Model F39-L10**  
**Model F39-L12**

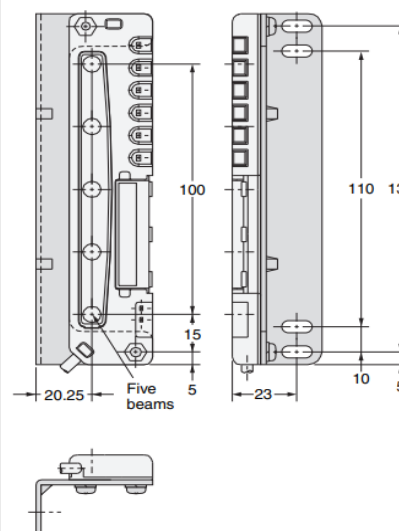
**F39-L10**

L\*W\*H=140mm\*42mm\*22mm, T=2mm  
 Mounting Hole Dimensions: 130mm / 110mm

**F39-L10(L-shaped)**



**Mounting Bracket Attached**





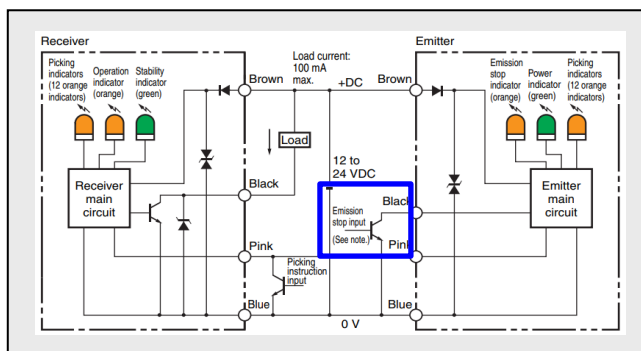
# [ Wire connection ]

**Product discontinuation**  
**Model F3W-E032A6**  
**Model F3W-E032A8**  
**Model F3W-E032B6**  
**Model F3W-E032B8**

## NPN type output wiring explanation

The differences in the blue section are explained as follows

Wire Color	Pin Number	function	F3W-E
Brown	(1)	Power+	Emitter/Receiver
Pink	(2)	Picking instruction input	Emitter/Receiver
Blue	(3)	power supply-	Emitter/Receiver
Black	(4)	Control Output	Receiver
Blue	(4)	Light emission stopped	Emitter

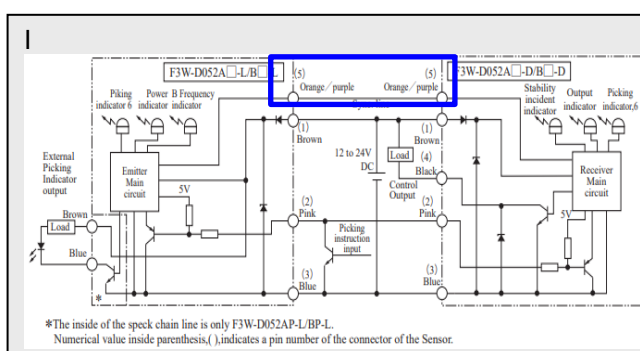


**Recommendable replacement**  
**Model F3W-D052A(P)**  
**Model F3W-D052C(P)**  
**Model F3W-D052B(P)**  
**Model F3W-D052D(P)**

## NPN type output wiring explanation

The differences in the blue section are explained as follows

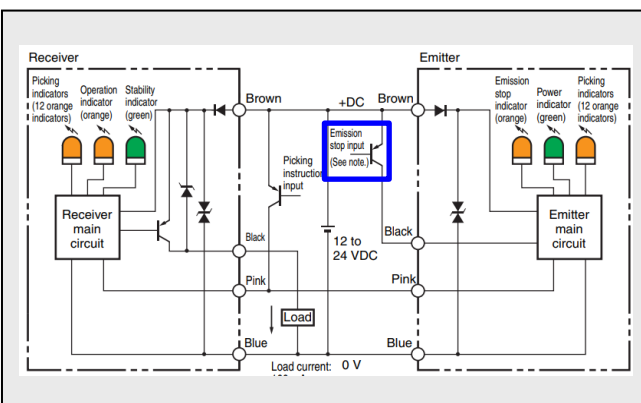
Wire Color	Pin Number	function	F3W-D
Brown	(1)	Power+	Emitter/Receiver
Pink	(2)	Picking instruction input	Emitter/Receiver
Blue	(3)	power supply-	Emitter/Receiver
Black	(4)	Control Output	Receiver
Orange/Purple	(5)	Synchronization Line	Emitter/Receiver



## PNP type output wiring explanation

The differences in the blue section are explained as follows

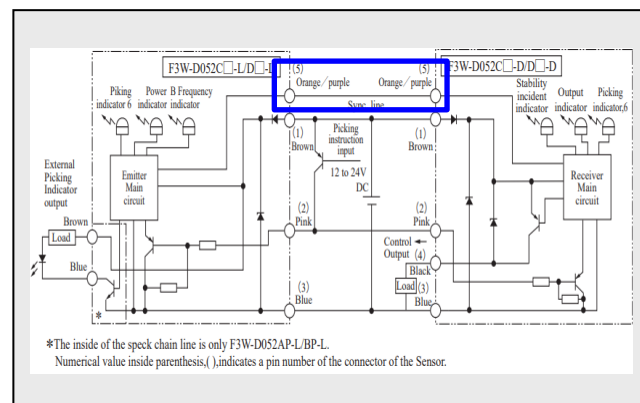
Wire Color	Pin Number	function	F3W-E
Brown	(1)	Power+	Emitter/Receiver
Pink	(2)	Picking instruction input	Emitter/Receiver
Blue	(3)	power supply-	Emitter/Receiver
Black	(4)	Control Output	Receiver
Blue	(4)	Light emission stopped	Emitter



## PNP type output wiring explanation

The differences in the blue section are explained as follows

Wire Color	Pin Number	function	F3W-D
Brown	(1)	Power+	Emitter/Receiver
Pink	(2)	Picking instruction input	Emitter/Receiver
Blue	(3)	power supply-	Emitter/Receiver
Black	(4)	Control Output	Receiver
Orange/Purple	(5)	Synchronization Line	Emitter/Receiver





**[ Characteristics ]**

Item	Product discontinuation	Recommendable replacement
	<b>Model F3W-E032A6</b> <b>Model F3W-E032A8</b> <b>Model F3W-E032B6</b> <b>Model F3W-E032B8</b>	<b>Model F3W-D052A(P) *1</b> <b>Model F3W-D052C(P) *1</b> <b>Model F3W-D052B(P) *1</b> <b>Model F3W-D052D(P) *1</b>
<b>Sensing distance</b>	30 to 300mm	3 m, switchable between LONG mode (1 to 3m) and SHORT mode: (0.05 to 1m), factory-set to SHORT mode.
<b>Beam gap</b>	25mm	25mm
<b>Number of beams</b>	3 optical axes	5 optical axes
<b>Sensing width</b>	50mm	100mm
<b>Standard sensing object</b>	Opaque, 28mm dia. min.	Opaque, 35mm dia. min.
<b>Light source (emission wavelength)</b>	Infrared LED (860 nm)	Infrared LED (860 nm)
<b>Power-supply voltage</b>	12 to 24VDC $\pm 10\%$ (ripple (p-p):10% max.)	12 to 24VDC $\pm 10\%$ (ripple (p-p):10% max.)
<b>Current consumption</b>	Emitter: 40mA max. Receiver: 40mA max.	Emitter:0.6W max. Receiver:0.7W max.
<b>Control Output</b>	NPN or PNP open collector output Load power supply:30VDC,Load current: 100 mA max.(Residual voltage: 1.8V max.) Dark-ON or Light-ON (selectable)	·NPN or open collector output Load power supply voltage DC30V,load current 100mA or less (residual voltage 1V or less) Dark-ON or Light-ON (selectable) ·PNP or open collector output (PNP output type F3W-D052C/D) Load power supply voltage DC30V, load current 100mA or less (residual voltage 2.5V or less)
<b>Picking instruction indicator input</b>	Relay or open collector input ·NPN input Indicator ON:Input voltage of 0 to 2V Indicator OFF:Open (with leakage current of 0.1 mA max.) ·PNP input Indicator ON:Input voltage: (+DC - 2V) to +DC* Indicator OFF:Open (with leakage current of 0.1mA max.)	Open collector with relay or transistor input ·NPN input Indicator ON: Input voltage of 0 to 2V Indicator OFF:Open (with leakage current of 0.1mA max.) ·PNP input Indicator ON: (+DC-2V) ~ +DCV Indicator OFF:Open(with leakage current of 0.1 mA max.)
<b>Emission stop input</b>	Relay or open collector input <u>NPN input</u> Emission stop input voltage: 0 to 2 V Emission input voltage: Open (with leakage current of 0.1mA max.) <u>PNP input</u> Emission stop input voltage:(+DC - 2 V) to +DC* Emission input voltage:Open (with leakage current of 0.1 mA max.)	none
<b>Protection Circuits</b>	Reverse-connection protection,output short protection,and mutual interference prevention function (set with frequency switch)	Reverse-connection protection,output short protection,and mutual interference prevention function (set with frequency switch)
<b>Response Time</b>	Operate/Reset:100ms max.	Operate/Reset:10ms max.

Item		Product discontinuation	Recommendable replacement
		<b>Model F3W-E032A6</b> <b>Model F3W-E032A8</b> <b>Model F3W-E032B6</b> <b>Model F3W-E032B8</b>	<b>Model F3W-D052A(P) *1</b> <b>Model F3W-D052C(P) *1</b> <b>Model F3W-D052B(P) *1</b> <b>Model F3W-D052D(P) *1</b>
Indicators	Receiver	Operation indicator (orange), stability indicator (green), and picking indicators (orange)	Operation indicator (orange), stability indicator (green), and 6 picking indicators (orange), UNI-WIRE Direct Connection Models: Transmission indicator (orange)*2
	Emitter	Power indicator (green), emission stop indicator (orange), and picking indicators (orange)	Power indicator (green), different frequency indicator (green), and 6 picking
Ambient temperature		Operating: -10 to 55°C, Storage: -25 to 70°C (with no icing or condensation)	Operating: -10 to 55°C, Storage: -25 to 70°C (with no icing or condensation)
Ambient humidity		Operating/storage: 35% to 85% (with no condensation)	35% to 85% (with no condensation)
Ambient illumination		Sunlight: 10,000 lx at light-receiving surface, Incandescent light: 3,000 lx at light-receiving surface	Sunlight: Not specified Incandescent lamp: 3,000 lx illuminance on the receiving surface
Insulation resistance		20MΩ min. (at 500 VDC)	20MΩ min. (at 500 VDC)
Dielectric strength		1,000VAC, 50/60Hz for 1min	1,000VAC 50/60Hz for 1min
Vibration resistance		10 to 50 Hz, 1.5mm double-amplitude for 2 hours each in X, Y, and Z directions	10 to 50 Hz, 1.5mm double-amplitude for 2 hours each in X, Y and Z directions
Shock resistance (destruction)		500m/s <sup>2</sup> , 3 times in X, Y, and Z directions	500m/s <sup>2</sup> , 3 times each in X, Y and Z directions
Degree of protection		IP62 (IEC60529)	IEC60529: IP62 (with the operation cover closed)
Connection method		•【F3W-E032A6 / F3W-E032A8】 Pre-wired Standard cable length: 2m •【F3W-E032B6 / F3W-E032B8】 Pre-wired connector Standard cable length: 0.3m (M12, 4-pin connector)	•【F3W-D052A(P) / F3W-D052C(P)】 Pre-wired Standard cable length: 5m *3 •【F3W-D052B(P) / F3W-D052D(P)】 Pre-wired connector (M12 5-pin connector) Standard cable length: 2m *3
Weight (packaged)		•【F3W-E032A6 / F3W-E032A8】 Approx. 125g •【F3W-E032B6 / F3W-E032B8】 Approx. 85g	Approx. 360g
Materials	Case	ABS resin	ABS resin
	Lens	Acrylic resin	Acrylic resin
	Cable	Oil-resistant PVC	Nylon (PA6)
Accessories		Instruction manual	Instruction manual
Dimensions		L*W*H=70mm*24mm*8mm	L*W*H=140mm*30mm*10mm

*	*+DC is the power supply voltage.	*1. The F3W-D052 P Emitters are provided with the external picking indicator output line shown in the following table.	
		Item Format	Model F3W-D052AP, Model F3W-D052BP, Model F3W-D052CP, Model F3W-D052DP
		Connection method	Cord pull-out (standard cord length 300mm)
		Electrical specifications	Output current: 50mA or less Output voltage: Fixed sensor power supply voltage
		*2. The transmission indicator indicates bus transmission status. *3. The following cable lengths are also available. F3W-D052A (P): 2 m, 7 m F3W-D052B : 1 m, 3.5 m	

[ Operation ratings ]

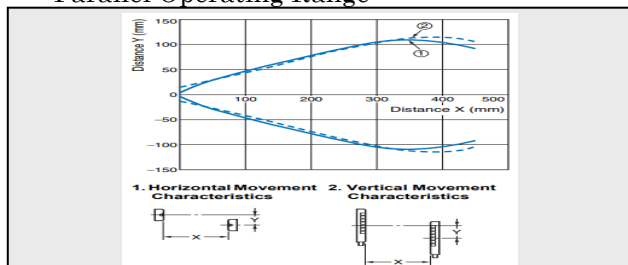
**Product discontinuation**  
**Model F3W-E032A6**  
**Model F3W-E032A8**  
**Model F3W-E032B6**  
**Model F3W-E032B8**

**Recommendable replacement**  
**Model F3W-D052A(P)**  
**Model F3W-D052C(P)**  
**Model F3W-D052B(P)**  
**Model F3W-D052D(P)**

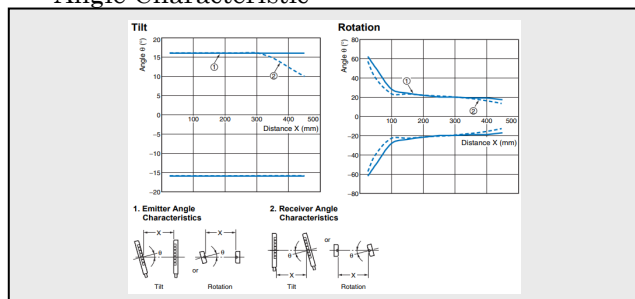
**Engineering Data (Typical)**

SHORT Mode

Parallel Operating Range



Angle Characteristic



LONG Mode

Parallel Operating Range

F3W-E series no long mode

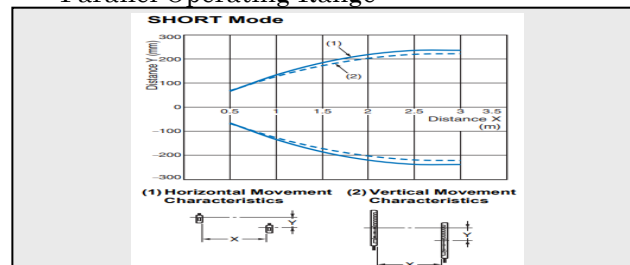
Angle Characteristic

F3W-E series no long mode

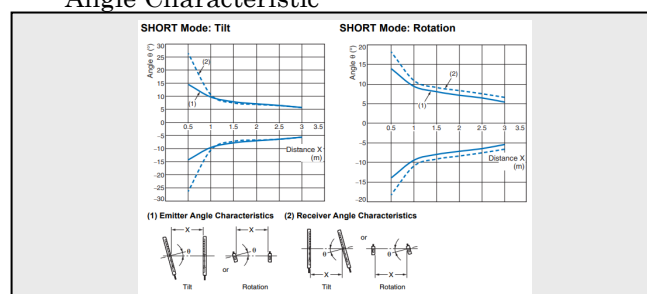
**Engineering Data (Typical)**

SHORT Mode

Parallel Operating Range

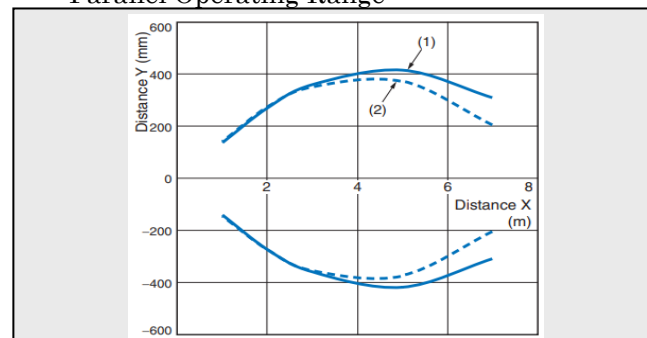


Angle Characteristic

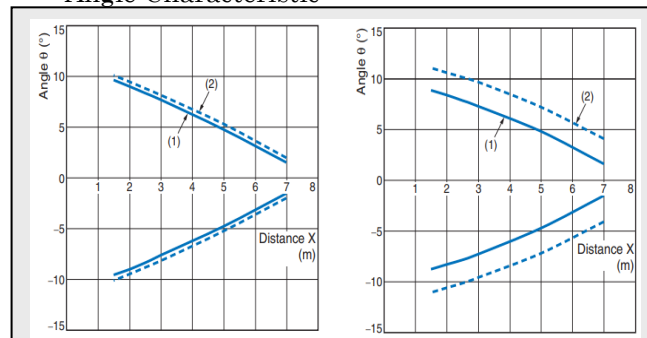


LONG Mode

Parallel Operating Range



Angle Characteristic



## [ Operation methods ]

**Product discontinuation**  
**Model F3W-E032A6**  
**Model F3W-E032A8**  
**Model F3W-E032B6**  
**Model F3W-E032B8**

**Recommendable replacement**  
**Model F3W-D052A(P)**  
**Model F3W-D052C(P)**  
**Model F3W-D052B(P)**  
**Model F3W-D052D(P)**

## Setting Method

### NPN/PNP Open Collector Outputs

#### Selector Switch Settings

Operation mode	Light-ON		Dark-ON	
	Emitter	Receiver	Emitter	Receiver
1				
2				
3				
4				




## Setting Method

## NPN Open-collector Output Models

### DIP Switch 1 Mode Switching









Image /

### Emitters


DIP switch 1	Function	OFF (left) (  )	ON(right) (  )
	1 Flash Pattern (picking display mode setting)	See table below. *1	
	3 Flash Time *2 (picking indicator flashing speed setting)	Slow	Fast
	4 External Flash Pattern (external picking display mode setting) *3	Lit	Flashing
	5 Not used.	---	---
	6 Frequency Setting *4	A (frequency A)	B (frequency B)

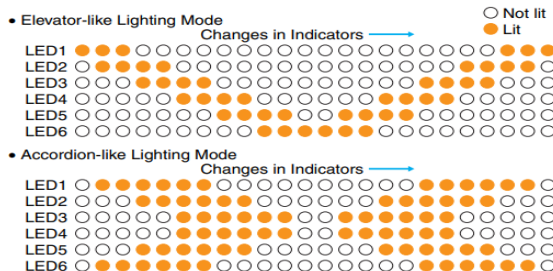
\*1. DIP Switch 1 Picking Display Mode Setting

## Receivers

DIP switch 1		Function	OFF (left) (  )	ON (right) (  )
 NO  2  3  4  5  6	1	Flash Pattern	See table below. *1	
	2	(picking display mode setting)		
		Flash Time *2 (picking indicator flashing speed setting)	Slow	Fast
	3	Operation mode setting	Dark-ON	Light-ON
	4	Sensing distance (sensitivity) setting	LONG mode (1 to 3 m)	SHORT mode (0.05 to 1 m)
	6	NC		

#### \*1. DIP Switch 1 Picking Display Mode Setting

Display switch 1	SW 1-1	SW 1-2	Display mode
	OFF	OFF	All lighting (All six indicators light.)
	ON	OFF	All flashing (All six indicators flash simultaneously.)
	OFF	ON	Elevator-like lighting (Two adjacent indicators simultaneously light so that lighting moves up and down.)
	ON	ON	Accordion-like lighting (Some or all indicators simultaneously light so that lighting moves like an accordion.)



\*2. The speed can be changed in picking distance. \*2. The

\*2. The flashing speed can be changed in picking display mode (all flashing, elevator-like lighting, or accordion-like lighting) or in external picking display mode. The flashing speed varies with each display mode.

\*3. This setting is supported for F3W-D052@P-L Emitters only.

\*4. Mutual Interference Prevention Function: The frequency selector is used to switch the emitting frequency between A and B. Making the emitting frequencies of two Sensors different helps prevent malfunction caused by mutual interference.

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.