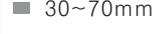
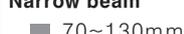
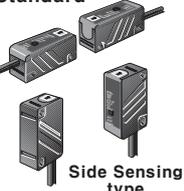
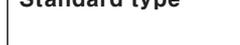


# Product Overview

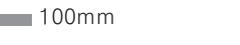
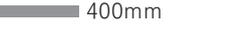
Appearances	Sensing type	Sensing distance	Model	Power supply	Response speed	Control output	Reference
<b>BJ Series</b> <b>CE</b> 	Transmitted beam type	 15m  10m	BJ15M-TDT	12-24VDC	Max.1ms	NPN open collector output PNP open collector output NPN open collector output PNP open collector output	K-9~14
			BJ15M-TDT-P				
		BJ10M-TDT					
		BJ10M-TDT-P					
	Retro-reflective type	 3m	BJ3M-PDT				
			BJ3M-PDT-P				
	Diffuse reflective type	 1m	BJ1M-DDT				
			BJ1M-DDT-P				
		 300mm  30mm	BJ300-DDT				
			BJ300-DDT-P				
	<b>NEW</b> Diffuse reflective type (Micro spot)	<b>Narrow beam</b>  30~70mm	BJN50-NDT				
			BJN50-NDT-P				
<b>Narrow beam</b>  70~130mm		BJN100-NDT					
		BJN100-NDT-P					
<b>BS5 Series</b> <b>CE</b> 	Transmitted beam type (Not modulated)	 5mm	BS5-L2M	5-24VDC	Received light : Max. 20 $\mu$ s  Interrupted light : Max. 100 $\mu$ s	NPN open collector output	K-15~17
			BS5-K2M				
			BS5-T2M				
			BS5-Y2M				
			BS5-V2M				
<b>BA Series</b> <b>CE</b> 	Diffuse reflective type	 2m	BA2M-DDT	12-24VDC	Max.1ms	NPN open collector output	K-18~19
			BA2M-DDT-P			PNP open collector output	
<b>BY Series</b> <b>Standard</b> 	Transmitted beam type	 500mm	BY500-TDT	12-24VDC	Max.1ms	NPN open collector output	K-20~22
			BYS500-TDT				
<b>BYD Series</b> <b>CE</b> 	Transmitted beam type	 3m	BYD3M-TDT	12-24VDC	Max.1ms	NPN open collector output	K-23~27
			BYD3M-TDT-P			PNP open collector output	
	Background suppression type	 30mm	BYD30-DDT				
			BYD30-DDT-U				
		 50mm	BYD30-DDT-T				
			BYD30-DDT-T				
	Diffuse reflective type <b>BYD30-DDT-U</b> <b>BYD50-DDT-U</b>	 100mm	BYD50-DDT				
BYD50-DDT-T							

# Product Overview

Appearances	Sensing type	Sensing distance	Model	Power supply	Response speed	Control output	Reference	
<b>BPS Series</b> 	Transmitted beam type	 3m	BPS3M-TDT	12-24VDC	Max. 1ms	NPN open collector output	K-28~29	
			BPS3M-TDTL					
			BPS3M-TDT-P			PNP open collector output		
			BPS3M-TDTL-P					
<b>BM Series</b> 	Transmitted beam type	 3m	BM3M-TDT	12-24VDC	Max. 3ms	NPN open collector output	K-30~33	
	Retro-reflective type	 0.1~1m	BM1M-MDT					
	Diffuse reflective type	 200mm	BM200-DDT					
<b>BMS Series</b> 	Transmitted beam type	 5m	BMS5M-TDT	12-24VDC	Max. 1ms	NPN open collector output	K-34~37	
			BMS5M-TDT-P			PNP open collector output		
	Retro-reflective type	 0.1~2m	BMS2M-MDT			NPN open collector output		
			BMS2M-MDT-P			PNP open collector output		
	Diffuse reflective type	 300mm	BMS300-DDT			NPN open collector output		
			BMS300-DDT-P			PNP open collector output		
<b>BEN Series</b> 	Transmitted beam type	 10m	BEN10M-TFR	24-240VAC/ 24-240VDC	Max. 20ms	Relay output	K-38~43	
			BEN10M-TDT	12-24VDC	Max. 1ms	NPN/PNP open collector output		
	Retro-reflective type	<b>Standard type</b>  0.1~5m	BEN5M-MFR	24-240VAC/ 24-240VDC	Max. 20ms	Relay output		
			BEN5M-MDT	12-24VDC	Max. 1ms	NPN/PNP open collector output		
			<b>Polarizing filter built-in</b>  0.1~3m	BEN3M-PFR	24-240VAC/ 24-240VDC	Max. 20ms		Relay output
				BEN3M-PDT	12-24VDC	Max. 1ms		NPN/PNP open collector output
	Diffuse reflective type	 300mm	BEN300-DFR	24-240VAC/ 24-240VDC	Max. 20ms	Relay output		
			BEN300-DDT	12-24VDC	Max. 1ms	NPN/PNP open collector output		
<b>BX Series</b> 	Transmitted beam type	 15m	BX15M-TFR	24-240VAC/ 24-240VDC	Max. 20ms	Relay output	K-44~50	
			<b>Timer built-in</b> BX15M-TFR-T					
			<b>Timer built-in</b> BX15M-TDT-T	12-24VDC	Max. 1ms	NPN/PNP open collector output		
								BX15M-TDT

- (A) Counter
- (B) Timer
- (C) Temp. controller
- (D) Power controller
- (E) Panel meter
- (F) Tacho/Speed/Pulse meter
- (G) Display unit
- (H) Sensor controller
- (I) Switching power supply
- (J) Proximity sensor
- (K) Photo electric sensor
- (L) Pressure sensor
- (M) Rotary encoder
- (N) Stepping motor & Driver & Controller
- (O) Graphic panel
- (P) Field network device
- (Q) Production stoppage models & replacement

# Product Overview

Appearances	Sensing type	Sensing distance	Model	Power supply	Response speed	Control output	Reference				
<b>BX Series</b> <b>CE</b> 	Retro-reflective type	<b>Standard type</b>  0.1~5m	<b>BX5M-MFR</b> <small>Timer built-in</small> <b>BX5M-MFR-T</b>	24-240VAC/ 24-240VDC	Max. 20ms	Relay output	<b>K-44~50</b>				
			<b>BX5M-MDT</b> <small>Timer built-in</small> <b>BX5M-MDT-T</b>					12-24VDC	Max. 1ms	NPN/PNP open collector output	
			Retro-reflective type	<b>Polarizing filter built-in</b>  0.1~3m	<b>BX3M-PFR</b> <small>Timer built-in</small> <b>BX3M-PFR-T</b>	24-240VAC/ 24-240VDC					Max. 20ms
					<b>BX3M-PDT</b> <small>Timer built-in</small> <b>BX3M-PDT-T</b>			12-24VDC	Max. 1ms	NPN/PNP open collector output	
			Diffuse reflective type	 700mm	<b>BX700-DFR</b> <small>Timer built-in</small> <b>BX700-DFR-T</b>	24-240VAC/ 24-240VDC					Max. 20ms
					<b>BX700-DDT</b> <small>Timer built-in</small> <b>BX700-DDT-T</b>			12-24VDC	Max. 1ms	NPN/PNP open collector output	
	BR Series	Transmitted beam type			 4m  20m	<b>BR4M-TDTL</b> <b>BR4M-TDTD</b> <b>BR4M-TDTL-P</b> <b>BR4M-TDTD-P</b>					12-24VDC
						<b>BR20M-TDTL</b> <b>BR20M-TDTD</b> <b>BR20M-TDTL-P</b> <b>BR20M-TDTD-P</b>		PNP open collector output			
	Diffusion type	 100mm	<b>BR100-DDT</b> <b>BR100-DDT-P</b> <b>BRP100-DDT</b> <b>BRP100-DDT-P</b>	NPN open collector output							
			<b>BR400-DDT</b> <b>BR400-DDT-P</b> <b>BRP400-DDT</b> <b>BRP400-DDT-P</b>	PNP open collector output							
			Diffuse reflective type	 400mm		<b>BR400-DDT</b> <b>BR400-DDT-P</b> <b>BRP400-DDT</b> <b>BRP400-DDT-P</b>		NPN open collector output			
						<b>BR200-DDTN</b> <b>BR200-DDTN-P</b> <b>BRP200-DDTN</b> <b>BRP200-DDTN-P</b>		PNP open collector output			
Narrow beam type	 200mm	<b>BR200-DDTN</b> <b>BR200-DDTN-P</b> <b>BRP200-DDTN</b> <b>BRP200-DDTN-P</b>				NPN open collector output					
		<b>BR200-DDTN</b> <b>BR200-DDTN-P</b> <b>BRP200-DDTN</b> <b>BRP200-DDTN-P</b>				PNP open collector output					
		<b>BR200-DDTN</b> <b>BR200-DDTN-P</b> <b>BRP200-DDTN</b> <b>BRP200-DDTN-P</b>	NPN open collector output								
		<b>BR200-DDTN</b> <b>BR200-DDTN-P</b> <b>BRP200-DDTN</b> <b>BRP200-DDTN-P</b>	PNP open collector output								

# Product Overview

Appearances	Sensing type	Sensing distance	Model	Power supply	Response speed	Control output	Reference
<b>BUP Series</b> 	Transmitted beam type	30mm	<b>BUP-30</b>	12-24VDC	Max. 1ms	NPN open collector output	<b>K-56~57</b>
			Adjuster built-in				
			<b>BUP-30S</b>				
			Adjuster built-in				
<b>BUP-30-P</b>	NPN open collector output						
Adjuster built-in							
<b>BUP-30-P</b>		PNP open collector output					
Adjuster built-in							
<b>BUP-50</b>	12-24VDC		Max. 1ms	NPN open collector output	<b>K-56~57</b>		
Adjuster built-in							
<b>BUP-50S</b>							
Adjuster built-in							
<b>BUP-50-P</b>		NPN open collector output					
Adjuster built-in							
<b>BUP-50-P</b>				PNP open collector output			
Adjuster built-in							

## Auto Door sensor

Appearances	Sensing type	Mounting height	Model	Power supply	Cover color	Control output	Reference
	Diffuse reflective type	2.0m ~2.7m	<b>ADS-AF</b>	24-240VAC/ 24-240VDC	Silver	Relay output	<b>K-58~64</b>
			<b>ADS-AE</b>	12-24VAC/ 12-24VDC			

## Door side sensor

Appearances	Sensing type	Sensing distance	Model	Power supply	Response speed	Control output	Reference
	Transmitted beam type	10m	<b>ADS-SE</b>	12-24VAC/ 12-24VDC	Max. 50ms	Relay output	<b>K-65~70</b>

## Area sensor

Appearances	Sensing type	Sensing distance	Model	Power supply	Response speed	Control output	Reference		
 (Aluminum case)	Transmitted beam type	0.1~7m	<b>BW20-□□</b>	12-24VDC	Max. 12ms	NPN open collector output	<b>K-71~76</b>		
			<b>BW40-□□</b>						
			<b>BW20-□□P</b>						
			<b>BW40-□□P</b>						
 (Plastic case)		0.1~5m	<b>BWP20-□□</b>			Max. 6ms		NPN open collector output	<b>K-77~81</b>
			<b>BWP20-□□P</b>						
<b>Picking sensor</b>  (Plastic case)		0.1~3m	<b>BWPK25-05</b>			Max. 30ms		NPN open collector output	<b>K-82~86</b>
			<b>BWPK25-05P</b>						

- (A) Counter
- (B) Timer
- (C) Temp. controller
- (D) Power controller
- (E) Panel meter
- (F) Tacho/Speed/Pulse meter
- (G) Display unit
- (H) Sensor controller
- (I) Switching power supply
- (J) Proximity sensor
- (K) Photo electric sensor
- (L) Pressure sensor
- (M) Rotary encoder
- (N) Stepping motor & Driver & Controller
- (O) Graphic panel
- (P) Field network device
- (Q) Production stoppage models & replacement

# BJ Series

## Compact and Long sensing distance/Micro spot type

### ■ Features

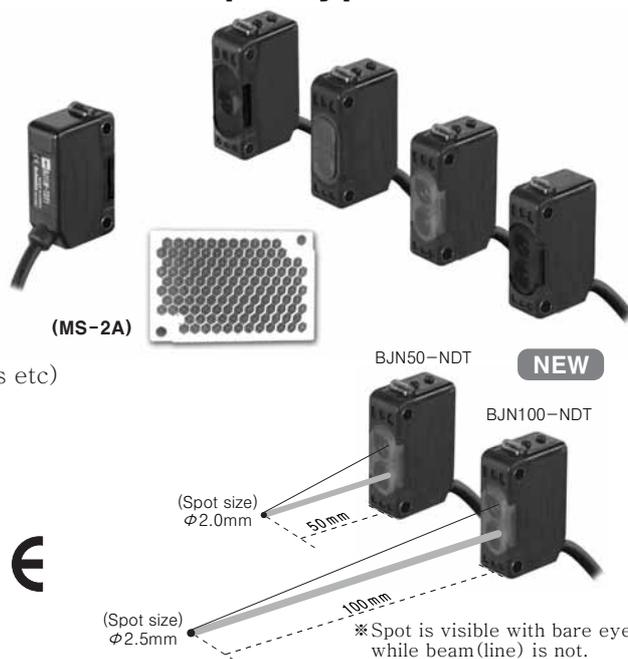
#### ■ Long distance sensing type

- Long sensing distance with high quality lens
- Detects up to 15m (Transmitted beam type)
- Long sensing distance : Diffuse reflective type 1m, Polarized reflective type 3m (MS-2A)
- M.S.R (Mirror Surface Rejection) function (Polarized retroreflective type)

#### ■ Transparent glass sensing type / Micro spot type

- Stable detection for transparent object (LCD, PDP, glass etc) by BJG30-DDT.
- Easy to check sensing location with Red LED
- Suitable for sensing small objects (Min. sensing object:  $\varnothing 0.2\text{mm}$  pure copper wire)

 Please read "Caution for your safety" in operation manual before using.



### ■ Specifications

Model	NPN Open collector output	BJ15M-TDT	BJ10M-TDT	BJ7M-TDT	BJ3M-PDT	BJ1M-DDT	BJ300-DDT	BJ100-DDT
	PNP Open collector output	BJ15M-TDT-P	BJ10M-TDT-P	BJ7M-TDT-P	BJ3M-PDT-P	BJ1M-DDT-P	BJ300-DDT-P	BJ100-DDT-P
Sensing type	Through-beam				Polarized retroreflective	Diffuse reflective		
Sensing distance	0~15m	0~10m	0~7m	(★)0.1~3m (MS-2A)	1m (Non-glossy white paper 300×300mm)	300mm (Non-glossy white paper 100×100mm)	100mm (Non-glossy white paper 100×100mm)	
Sensing target	Opaque material over $\varnothing 12\text{mm}$		Opaque material over $\varnothing 8\text{mm}$	Opaque material over $\varnothing 75\text{mm}$	Translucent, Opaque materials			
Hysteresis					Max. 20% at rated setting distance			
Response time	Max. 1ms							
Power supply	12~24VDC $\pm 10\%$ (Ripple P-P: Max.10%)							
Current consumption	Emitter/Receiver : Max. 20mA				Max. 30mA			
Light source	Infrared LED (850nm)	Red LED (660nm)	Red LED (Point light source 650nm)	Red LED (660nm)	Infrared LED (850nm)	Red LED (660nm)	Infrared LED (850nm)	
Sensitivity adjustment	Built-in VR							
Operation mode	Light ON/Dark ON mode selectable							
Control output	NPN open collector output • Load voltage : Max. 26.4VDC • Load current : Max. 100mA • Residual voltage : Max. 1V							
	PNP open collector output • Load voltage : Max. 26.4VDC • Load current : Max. 100mA • Residual voltage : Min. (Power supply-2.5V)							
Protection circuit	Reverse polarity protection, Output short-circuit protection				Reverse polarity protection, Interference prevention function, Output short-circuit protection			
Indicator	Operation : Red, Stable : Green (Emitter's power indicator : Green)							
Connection	Outgoing cable type							
Insulation resistance	Max. 20M $\Omega$ (at 500VDC megger)							
Dielectric strength	1000VAC 50/60Hz for 1minute							
Vibration	1.5mm or 300mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 2 hours							
Shock	500m/s <sup>2</sup> X, Y, Z directions for 3 times							
Ambient illumination	Sunlight : Max. 11,000lx, Incandescent lamp : Max. 3,000lx (Receiver illumination)							
Ambient temperature	Operation : -25 ~ 55°C, Storage : -40 ~ 70°C (at non-freezing, at non-dew status)							
Ambient humidity	(at non-freezing, at non-dew status)							
Protection	IP65 (IEC standard)							
Material	Case : PC+ABS, Lens : PMMA, LED Cap : PC							
Cable	$\varnothing 3.5\text{mm}$ , 3P, Length : 2m (Emitter of transmitted beam type : $\varnothing 3.5\text{mm}$ , 2P, Length : 2m) 22AWG, Core wire diameter: 0.08mm, No. of core wire: 60							
Accessory	Common	Mounting bracket, Bolt, Nut, VR adjustment driver						
	Individual				Reflector (MS-2A)			
Approval								
Unit weight	Approx. 90g				Approx. 60g		Approx. 45g	

\* (★) The sensing distance is extended to 0.1~4m or 0.1~5m when using optional reflector MS-2S or MS-3S.

# Long sensing distance/Micro spot type

## Specifications

Model	NPN open collector output	<b>BJG30-DDT</b>		<b>BJN50-NDT</b>	<b>BJN100-NDT</b>
	PNP open collector output	—		<b>BJN50-NDT-P</b>	<b>BJN100-NDT-P</b>
Sensing type	Diffuse reflective		Diffuse reflective (Narrow beam)		
Power supply	12-24VDC ±10% (Ripple P-P : Max.10%)				
Current consumption	Max. 30mA				
Min. diameter of transmitting SPOT	—		Approx. $\phi$ 2.0mm	Approx. $\phi$ 2.5mm	
Min. sensing target	—		Approx. min. $\phi$ 0.2mm (Copper wire)		
Sensing distance	0~30mm	0~15mm	30~70mm	70~130mm	
Sensing target	100×100mm Non-glossy white paper	Transparent glass 50×50mm (t=3.0mm)	Transparent, Translucent, Opaque materials (100×100mm Non-glossy white paper)		
Hysteresis	Max. 20% at sensing distance		Max. 25% at sensing distance	Max. 20% at sensing distance	
Light source / Wavelength	Infrared LED (850nm)		Pin Point LED (Point source) / 650nm		
Control output	NPN Open collector type • Load voltage : Max. 26.4VDC • Load current : Max. 100mA • Residual voltage		NPN or PNP Open collector type • Load voltage : Max. 26.4VDC • Load current : Max. 100mA • Residual voltage $\Rightarrow$ NPN : Max. 1V, PNP : Min. (Power voltage -2.5V)		
Operation mode	Light ON mode fixed		Light ON / Dark ON mode selectable (Short rotator adjuster)		
Protection circuit	Reverse polarity protection, Output short-circuit protection, Interference prevention function				
Response time	Max. 1ms				
Sensitivity adjustment	Short rotation VR (210°)				
Ambient illumination	Sunlight : Max. 11,000lx, Incandescent lamp : Max. 3,000lx (Receiver illumination)				
Ambient temperature	Operation: -25~55°C, Storage: -40~70°C (at non-freezing, non-dew status)				
Ambient humidity	Operation & Storage : 35~85%RH (at non-dew status)				
Insulation resistance	Min. 20M $\Omega$ (at 500VDC megger)				
Dielectric strength	1,000VAC 50/60Hz for 1minute				
Vibration	1.5mm or 300m/s <sup>2</sup> amplitude at frequency of 10~55Hz in each of X, Y, Z directions for 2 hours				
Shock	500m/s <sup>2</sup> X, Y, Z directions for 3 times				
Protection	IP65 (IEC standard)				
Connection	Outgoing cable type				
Indicator	Operation indicator : Red, Stability indicator : Green				
Material	Case : PC+ABS, Lens : PMMA, LED CAP : PC				
Cable	$\phi$ 3.5mm, 3P, Length : 2m				
Accessory	Mounting bracket, Bolt		Mounting bracket, Bolt, Adjustment driver		
Approval	<b>CE</b>				
Unit weight	Approx. 45g				

## Feature data

### Through-beam

#### •BJ15M-TDT / BJ15M-TDT-P / BJ10M-TDT / BJ10M-TDT-P / BJ7M-TDT / BJ7M-TDT-P

Parallel shifting characteristic		Angle characteristic	
Measuring method	Data	Measuring method	Data

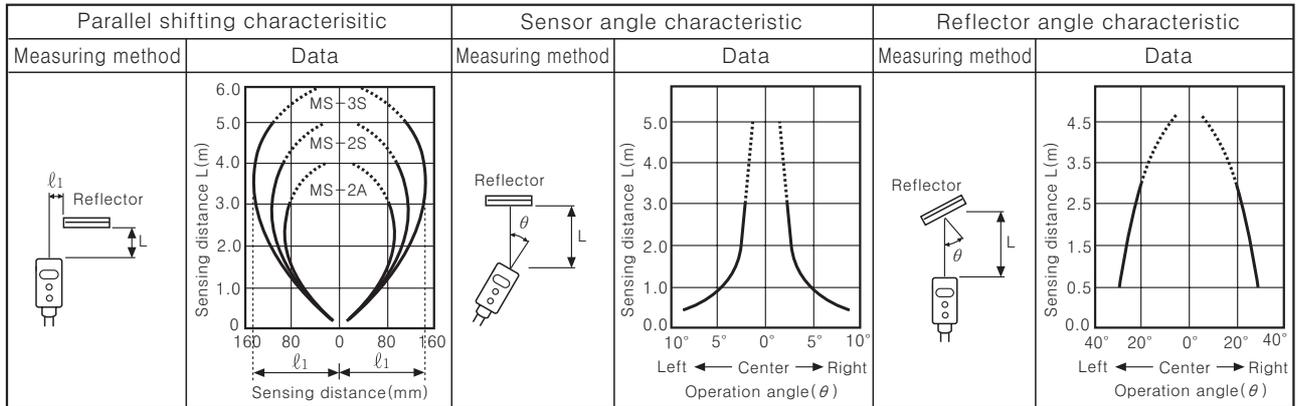
(A) Counter  
(B) Timer  
(C) Temp. controller  
(D) Power controller  
(E) Panel meter  
(F) Tacho/Speed/Pulse meter  
(G) Display unit  
(H) Sensor controller  
(I) Switching power supply  
(J) Proximity sensor  
(K) Photo electric sensor  
(L) Pressure sensor  
(M) Rotary encoder  
(N) Stepping motor & Driver & Controller  
(O) Graphic panel  
(P) Field network device  
(Q) Production stoppage models & replacement

# BJ Series

## Feature data

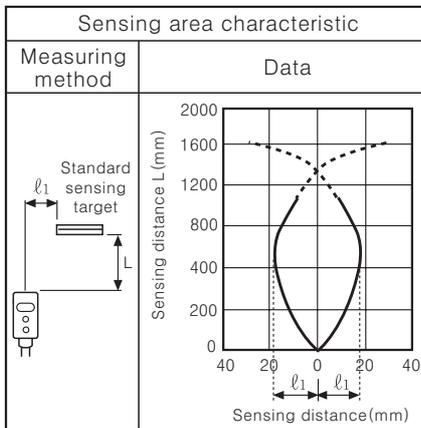
### Polarized retroreflective

#### ●BJ3M-PDT / BJ3M-PDT-P

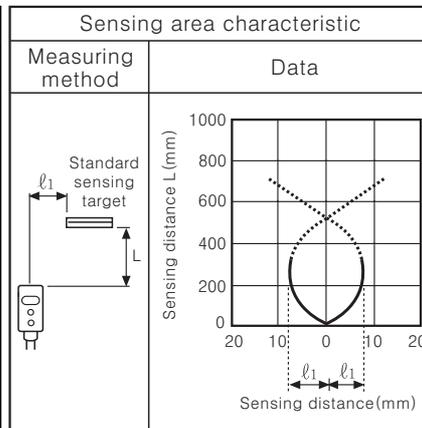


### Diffuse reflective

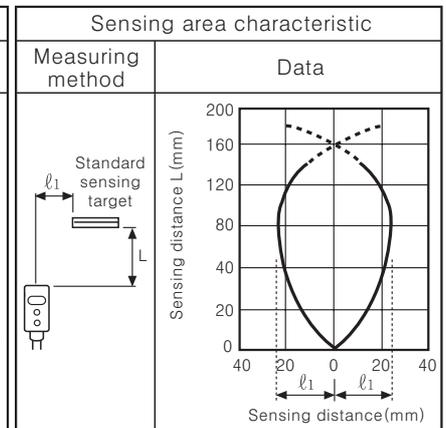
#### ●BJ1M-DDT / BJ1M-DDT-P



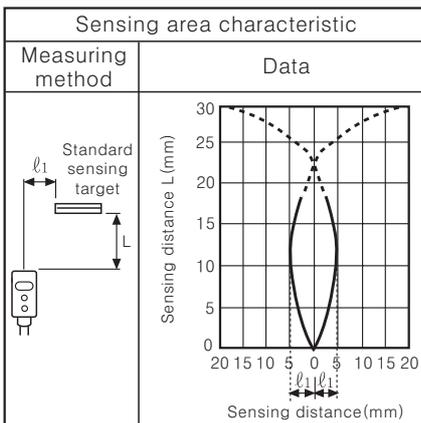
#### ●BJ300-DDT / BJ300-DDT-P



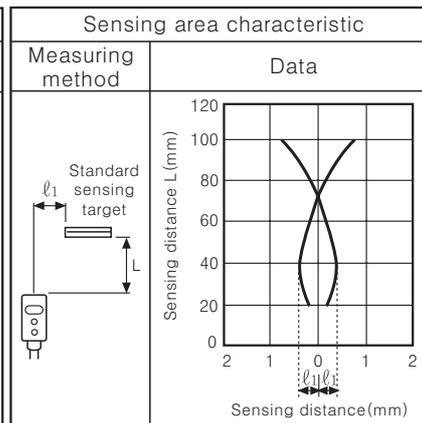
#### ●BJ100-DDT / BJ100-DDT-P



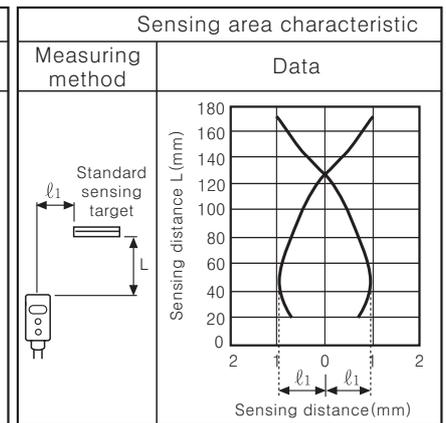
#### ●BJG30-DDT



#### ●BJN50-NDT / BJN50-NDT-P

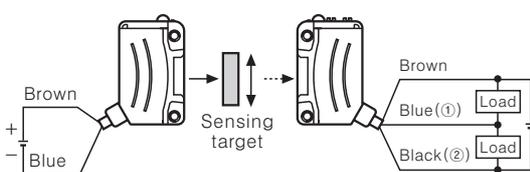


#### ●BJN100-NDT / BJN100-NDT-P

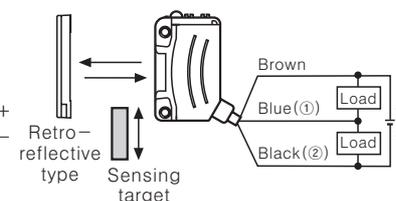


## Connections

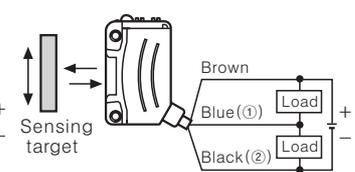
### ●Through-beam



### ●Polarized retroreflective type



### ●Diffuse reflective

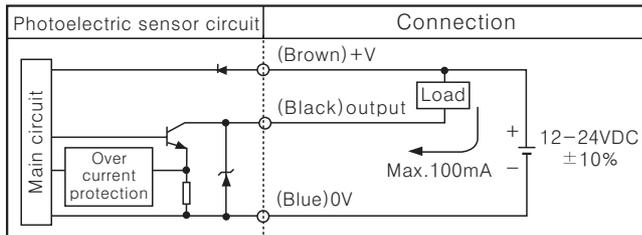


※ ① : The load connection of NPN open collector output, ② : The load connection of PNP open collector output

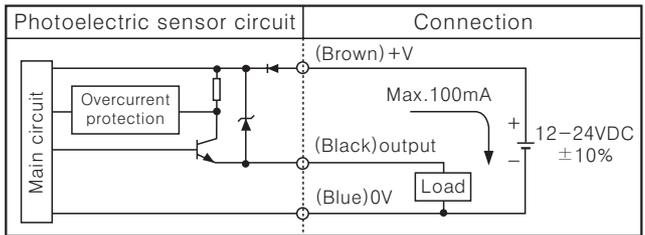
# Long sensing distance/Micro spot type

## Control output diagram

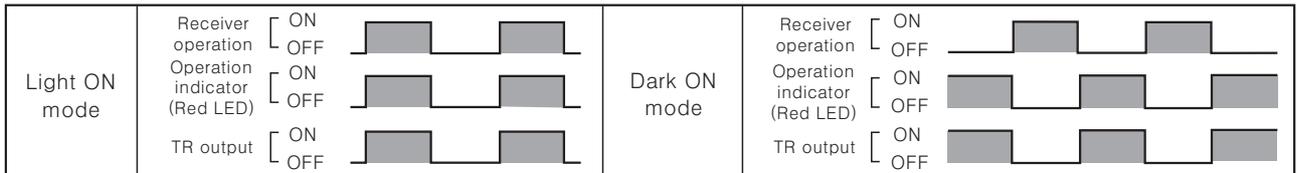
### ●NPN output



### ●PNP output



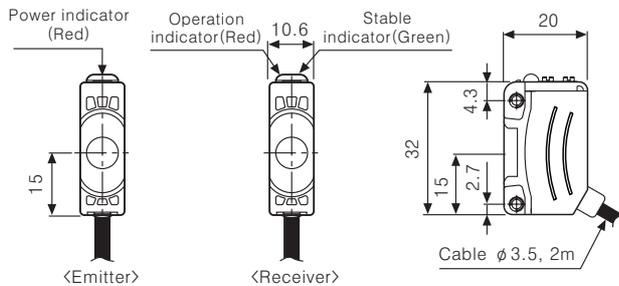
## Operation mode



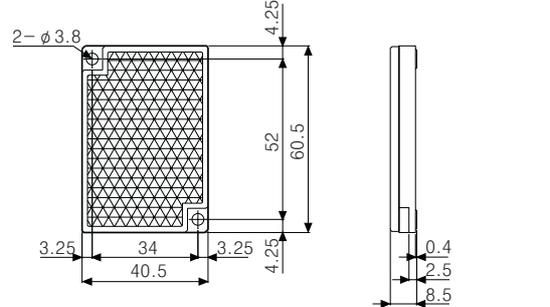
## Dimensions

(Unit:mm)

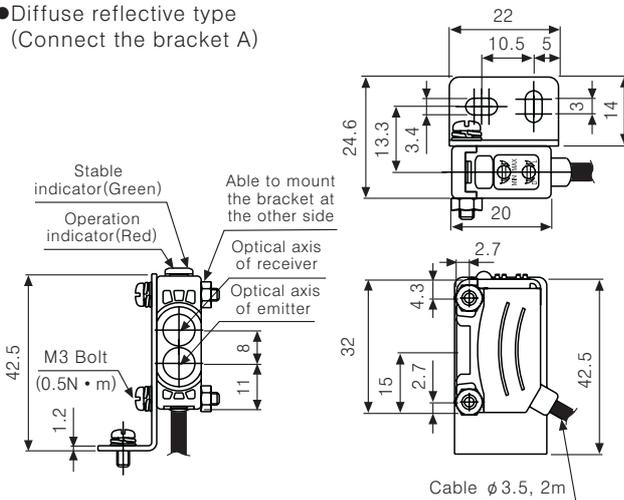
### ●Through-beam type



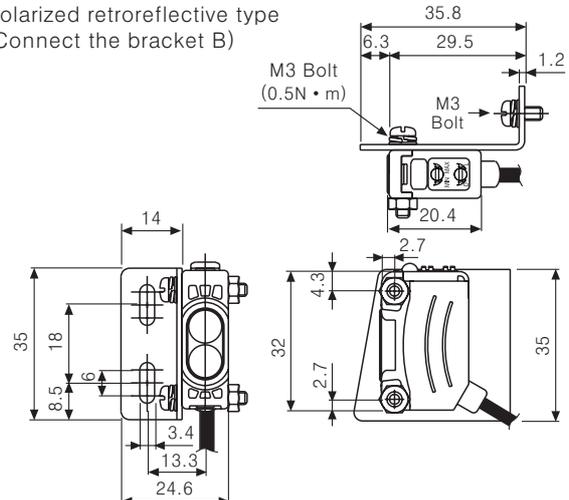
### ●Reflector (Include: MS-2A, Sold separately: MS-2S, MS-3S)



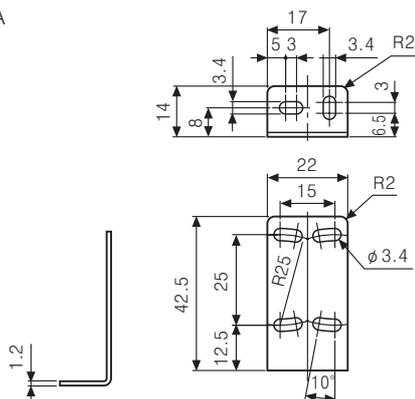
### ●Diffuse reflective type (Connect the bracket A)



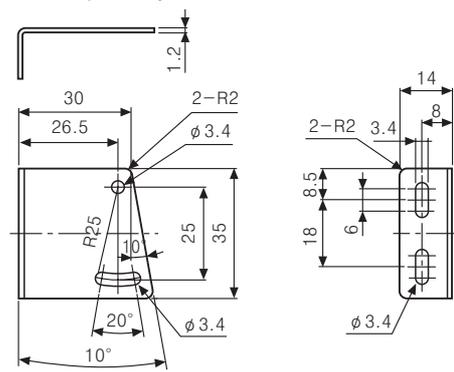
### ●Polarized retroreflective type (Connect the bracket B)



### ●Bracket A



### ●Bracket B (Sold separately)



(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/Speed/Pulse meter

(G) Display unit

(H) Sensor controller

(I) Switching power supply

(J) Proximity sensor

(K) Photo electric sensor

(L) Pressure sensor

(M) Rotary encoder

(N) Stepping motor & Driver & Controller

(O) Graphic panel

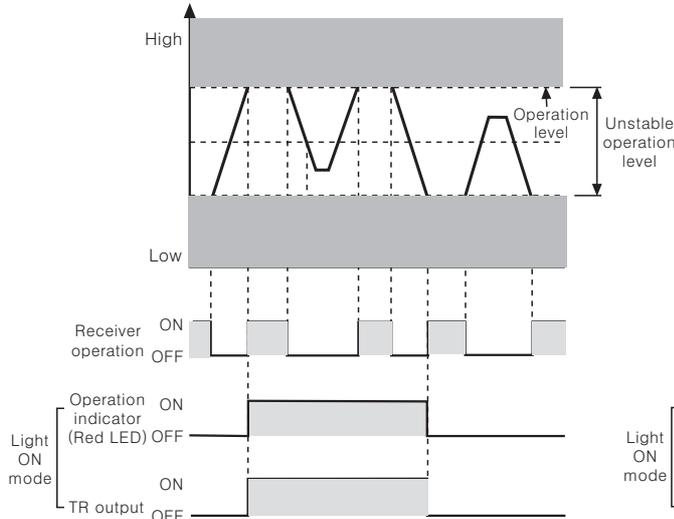
(P) Field network device

(Q) Production stoppage models & replacement

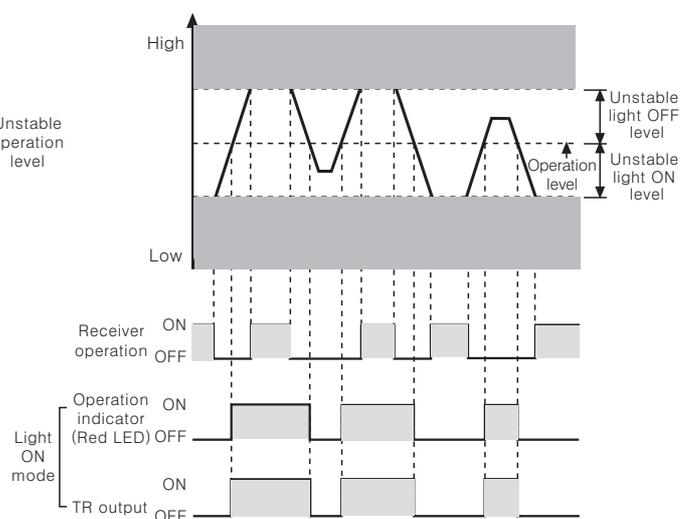
# BJ Series

## Operation mode and Timing diagram

### Emitter



### Diffuse reflective/Polarized retroreflective

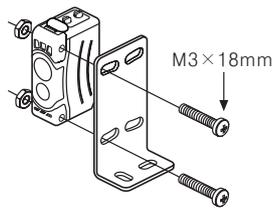


※ The waveform of 'Operation mode indicator' and 'TR output' is for Light ON mode, it is operated as reverse in Dark ON mode.

## Mounting and sensitivity adjustment

### For mounting

Please use screw M3 for mounting of sensor, set the tightening torque under 0.5 N • m.



### Switching of operation mode

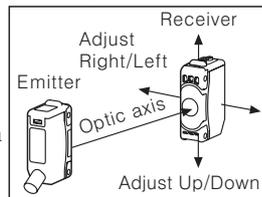
Light ON mode (Light ON)		Turn the operation switching adjuster to right (L direction), it is set as Light ON mode.
Light OFF mode (Dark ON)		Turn the operation switching adjuster to left (D direction), it is set as Light OFF mode.

※ The operation switching adjuster is installed in the receiver for transmitted beam type.

### Mounting

#### Through-beam type

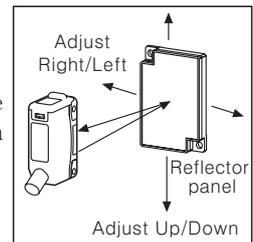
- Place the emitter and receiver facing each other and apply the power.
- After adjust the position of the emitter and receiver and check their stable indicating range, mount them in the middle of the range.
- After mounting, check the operation of sensor and lighting of stable indicator in both status. (None or sensing target status)



※ When the sensing target is translucent or small (Under  $\phi$  16mm), it can be missed by the sensor because the light can penetrate it.

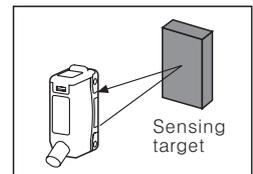
#### Polarized retroreflective type

- Place the Sensor and retroreflective facing each other and apply the power.
- After adjust the position of the Sensor and retro-reflective and check their stable indicating range, mount them in the middle of the range.
- After mounting, check the operation of sensor and lighting of stable indicating in both status. (None or sensing target status)

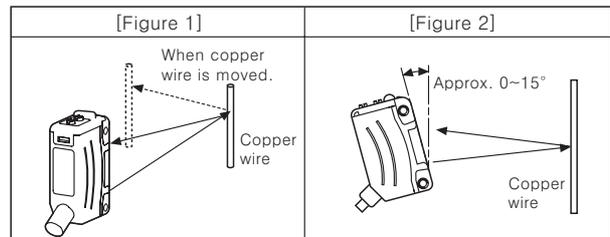


#### Diffuse reflective type

After place a sensing target, adjust the sensor to up • down, left • right. Then, fix the sensor in center of position where the indicator is operating.



#### Object (Copper wire) detection <Micro spot type>

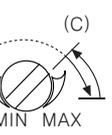


※ Mount sensor slanted at an angle ranged 0~15° shown above as [Figure 2] for stable detection to detect as shown in [Figure 1].

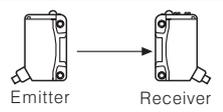
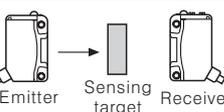
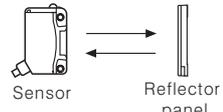
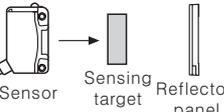
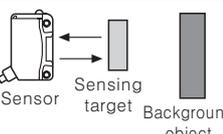
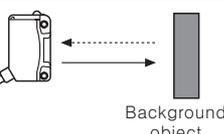
# Long sensing distance/Micro spot type

## ■ Sensitivity adjustment

◎Sensitivity adjustment

Order	Position	Description
1	(A) 	Turn the sensitivity adjuster to the right of min. and check position(A) where the indicator is turned on in "Light ON status".
2	(A) (C) 	Turn the sensitivity adjuster more to the right of position(A), check position(B) where the indicator is turned on. And turn the adjuster to the left, check position(C) where the indicator is turned off in "Dark ON status". ※If the indicator is not lighted although the adjuster is turned to the max. position, the max. position is(C).
3	Optimal sensitivity (A) (C) 	Set the adjuster at the center of (A) and (C). To set the optimum sensitivity, check the operation and lighting of stable indicator with sensing target or without it. If the indicator is not lighted, please check the sensing method again because sensitivity is unstable.

※No sensitivity adjustment function available for BJJ30-DDT models

	"Light ON status"	"Light OFF status"
Through-beam type		
Polarized retro-reflective type		
Diffuse reflective		

※Set the sensitivity to operate in a stable light ON area, the reliability for the environment (Temperature, voltage, dust etc) will be increased.

※Do not apply an excessive force on adjuster, it can be broken.

(A)  
Counter

(B)  
Timer

(C)  
Temp.  
controller

(D)  
Power  
controller

(E)  
Panel  
meter

(F)  
Tacho/  
Speed/  
Pulse  
meter

(G)  
Display  
unit

(H)  
Sensor  
controller

(I)  
Switching  
power  
supply

(J)  
Proximity  
sensor

(K)  
Photo  
electric  
sensor

(L)  
Pressure  
sensor

(M)  
Rotary  
encoder

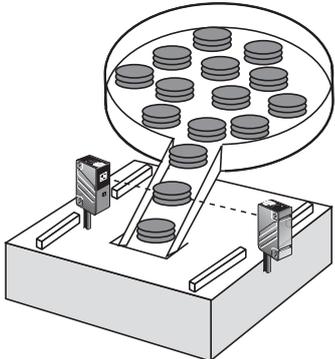
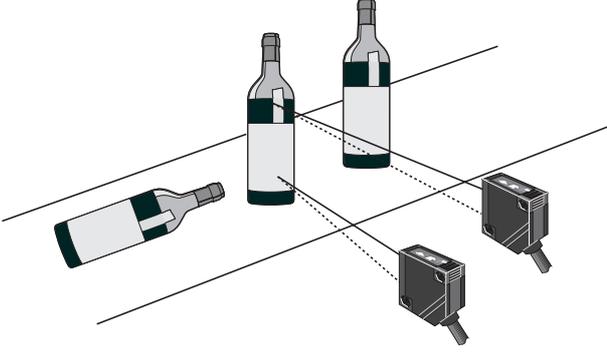
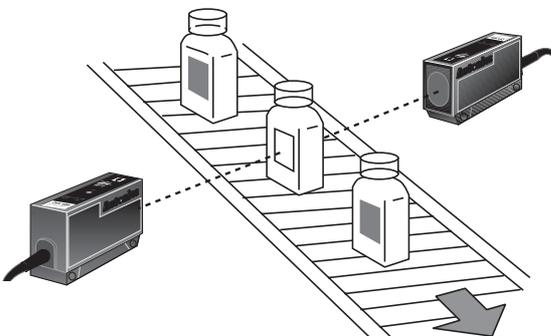
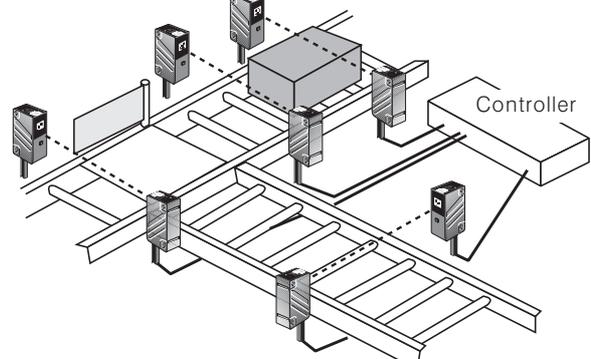
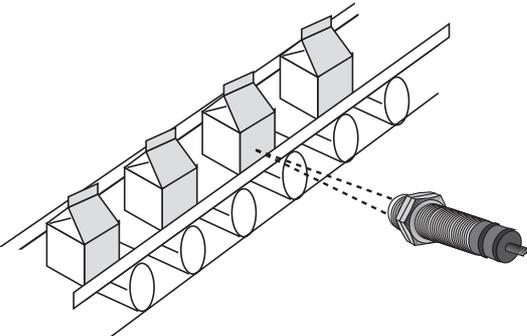
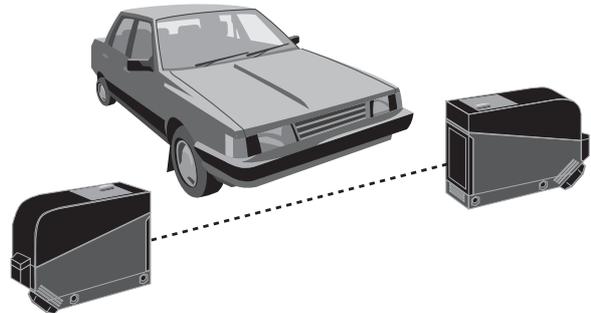
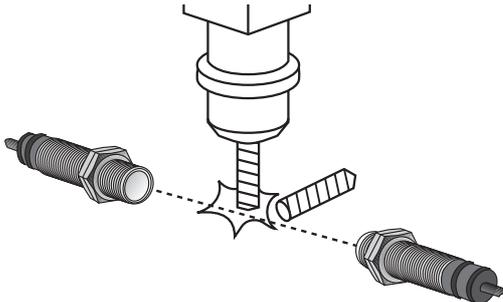
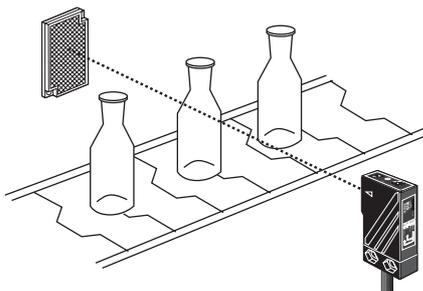
(N)  
Stepping  
motor &  
Driver &  
Controller

(O)  
Graphic  
panel

(P)  
Field  
network  
device

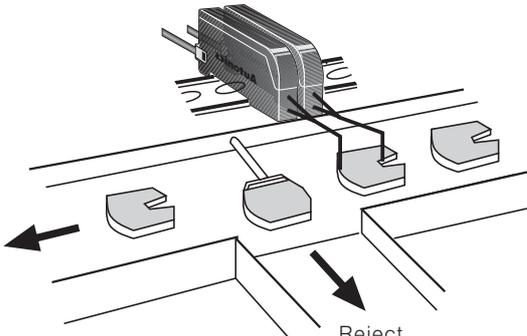
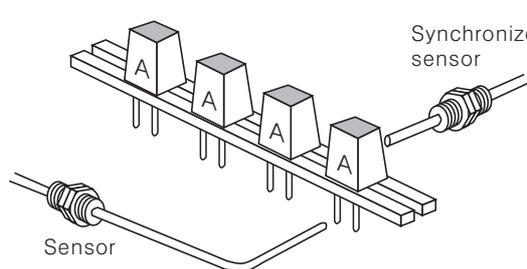
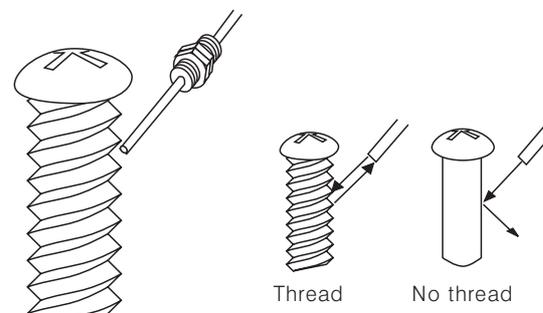
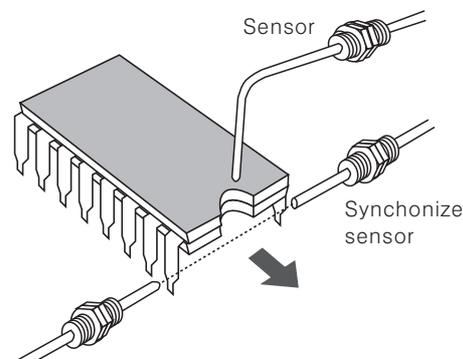
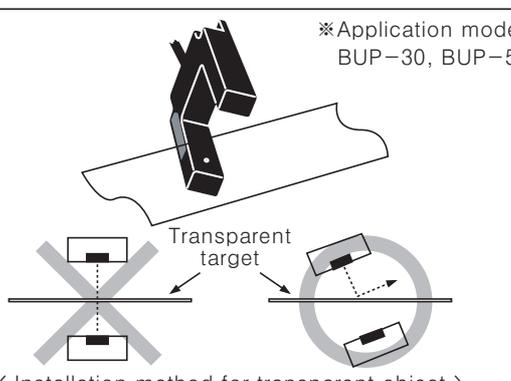
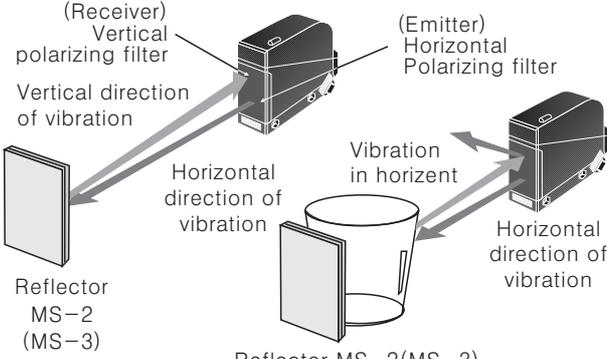
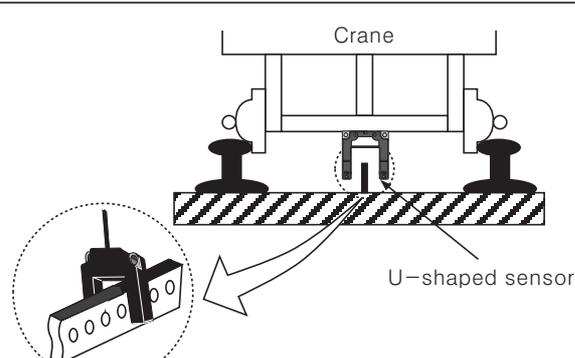
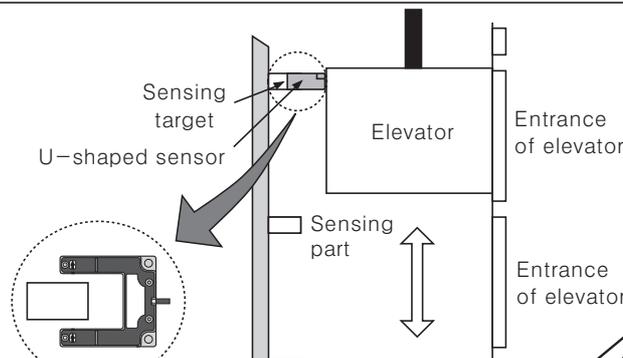
(Q)  
Production  
stoppage  
models &  
replacement

## ■ Applications

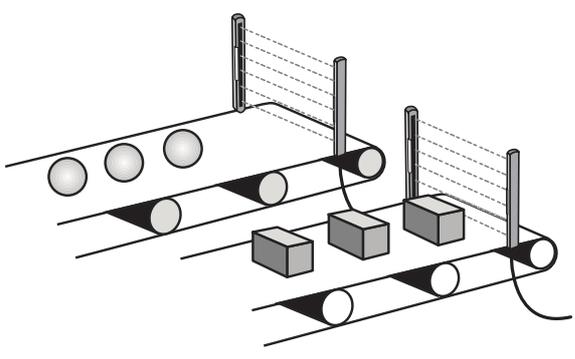
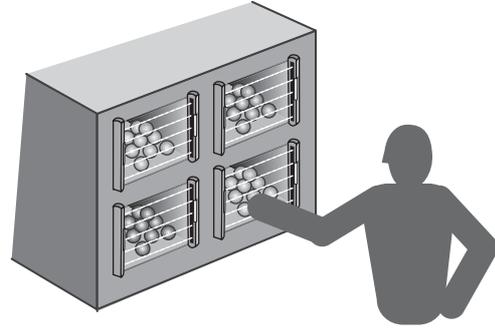
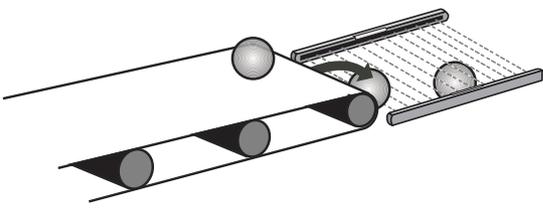
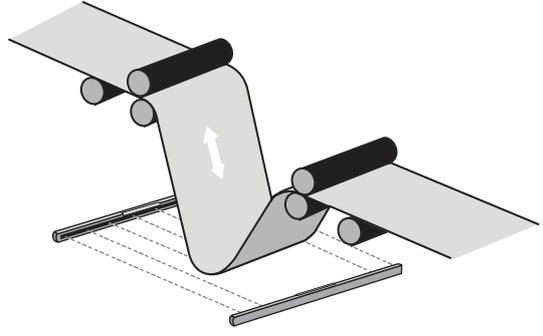
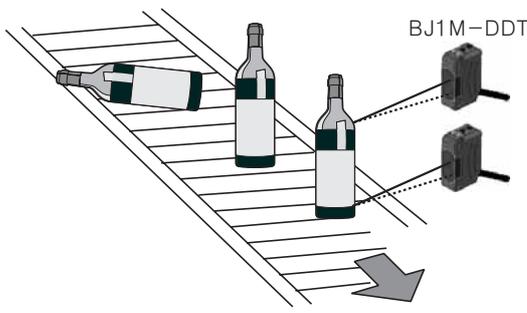
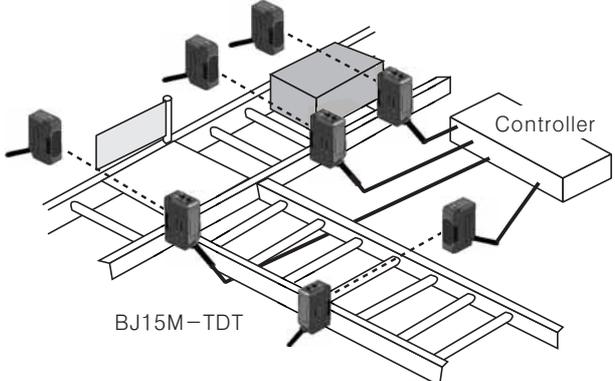
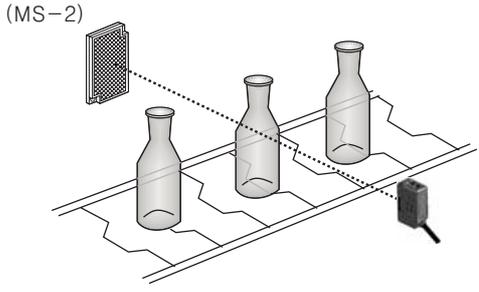
<p>Detection of passing objects in narrow place</p> 	<p>Detection of fallen bottle</p> 	(A) Counter
<p>Label detection of transparent bottle</p> 	<p>Automatic conveyor line</p> 	(B) Timer
<p>Detection of milk pack</p> 	<p>Detection of passing of the car</p> 	(C) Temp. controller
<p>Detection of a broken drill blade</p> <p>※If the drill blade is thin, it cannot be detected because BR4M-TDT□ detects the object over 15mm.</p> 	<p>Detection of present / absence of transparent bottle</p> <p>※Retroreflective type(Able to adjust sensitivity)</p> 	(D) Power controller
		(E) Panel meter
		(F) Tacho/ Speed/ Pulse meter
		(G) Display unit
		(H) Sensor controller
		(I) Switching power supply
		(J) Proximity sensor
		(K) Photo electric sensor
		(L) Pressure sensor
		(M) Rotary encoder
		(N) Stepping motor & Driver & Controller
		(O) Graphic panel
		(P) Field network device
		(Q) Production stoppage models & replacement

# Application

## ■ Applications

<p>Detection of the form of targets</p> 	<p>Detection of components leads</p> 
<p>Detection of presence / absence of tap</p> 	<p>Detection of IC direction</p> 
<p>Detection of transparent vinyl</p> <p>※Application model BUP-30, BUP-50</p> 	<p>Polarizing filter built in</p> 
<p>Detecting position of moving target</p> 	<p>Detecting position of elevator</p> 

## ■ Applications

<p>Detecting arrival of components</p> 	<p>Detection of approaching object or person</p> 	(A) Counter
<p>Detection of fallen object</p> 	<p>Detection of lengthened part</p> 	(B) Timer
<p>Detection of fallen bottle</p>  <p>BJ1M-DDT</p>	<p>Automatic conveyor line</p>  <p>BJ15M-TDT</p> <p>Controller</p>	(C) Temp. controller
<p>Detection of transparent bottle</p>  <p>(MS-2)</p> <p>BJ3M-PDT</p>		(D) Power controller
		(E) Panel meter
		(F) Tacho/Speed/Pulse meter
		(G) Display unit
		(H) Sensor controller
		(I) Switching power supply
		(J) Proximity sensor
		(K) Photo electric sensor
		(L) Pressure sensor
		(M) Rotary encoder
		(N) Stepping motor & Driver & Controller
		(O) Graphic panel
		(P) Field network device
		(Q) Production stoppage models & replacement