

# NAIS

## COMPACT SIZE GENERAL USE PHOTOELECTRIC SENSORS

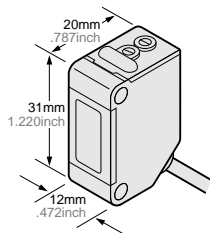
# UZA Series

### EXHAUSTIVE PURSUIT OF THE BASIC PERFORMANCE



#### Compact Size

Depth is only 20mm .787inch.

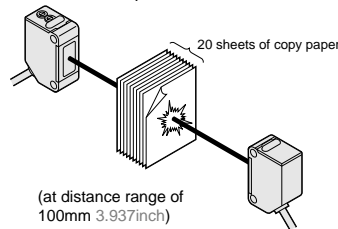


#### Waterproof

IP67 housing (temporarily submersible)  
stainless steel brackets.

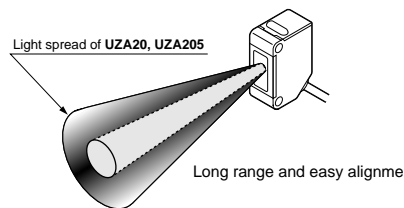
#### Strong Light Beam Potential

**UZA20**, **UZA205** use an infrared light beam strong enough to penetrate 20 sheets of copy paper (highly resistant to contamination).



#### Easy Alignment

The width of the emitted beam makes alignment easy for the thru-beam, while the use of a visible red LED does the same for the retroreflective version.

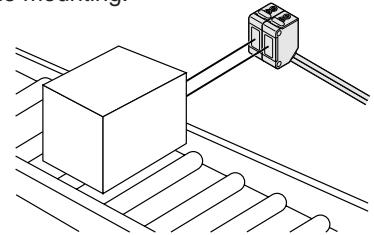


#### Reliable Detection of Transparent Targets

**UZA25**, **255** have unique optics and electronics design to "see" transparent objects.

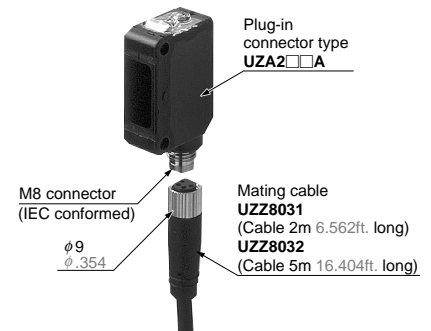
#### Close Mounting of Two Sensors

**UZA23**, **UZA24**, and **UZA26** are equipped with an automatic crosstalk prevention function to allow side by side mounting.



#### Plug-in Connector Type is Available

By one-touch disconnection, any one can replace the sensor in a minute. If a trouble happens, the **UZA** with the connector assists your maintenance with ease.

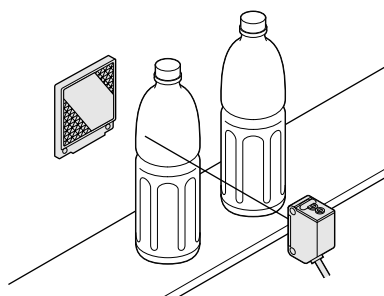


### Transparent Objects can be Detected Reliably

**UZA25** detect transparent objects reliably because of its unique optical system and electronic circuit.

ℓ: Length, t: Thickness

#### Pass sensing of pet bottles



#### Detectable transparent objects

[ by using a **UZZ112** reflector at optimum condition (\*1) ]

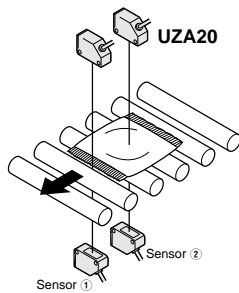
When the passing position of the sensing object places at the center of the sensor and reflector.

(\*1): The optimum state is the condition that the sensitivity is set at the limit level where a stability indicator just starts to light up.

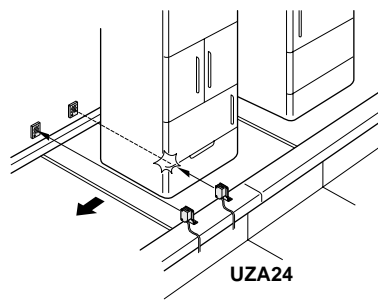
Sensing object	The size of a sensing object
Glass boards	□50mm 1.969inch t=1.0mm .039inch
Cylindrical glasses	φ50mm φ1.969inch
	ℓ=50mm 1.969inch
	t=2.0mm .078inch
	φ100mm φ3.937inch
Acrylic boards	ℓ=50mm 1.969inch
	t=2.3mm .091inch
Styrols (floppy cases)	□50mm 1.969inch t=1.5mm .059inch
Food wrapping films	□50mm 1.969inch t=1.2mm .047inch
Cigarette case films	□50mm 1.969inch t=10μm
Venyl sacks	□50mm 1.969inch t=20μm
Pet bottles	□50mm 1.969inch t=30μm
Glass bins	φ55mm φ2.165inch
	φ70mm φ2.756inch
	φ65mm φ2.559inch

## APPLICATIONS

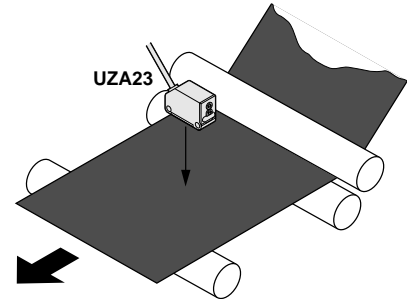
### Content check inside paper pouches



### Detection of white specular goods



### Detection of rubber sheets



## ORDER GUIDE

			Appearance	Sensing range	Model No.	Sensing output	Emitting element
NPN output type	Thru-beam			10m 32.808ft.	<b>UZA20</b>	NPN open-collector transistor	Infrared LED
	Retroreflective	With polarizing filters		0.1 to 3m (*1) .328 to 9.843ft.	<b>UZA24</b>		Red LED
		For transparent object sensing Long sensing range		50 to 1,000mm (*1) 1.969 to 39.370inch	<b>UZA25</b>		Infrared LED
	Diffuse reflective	Long sensing range		800mm 31.496inch	<b>UZA23</b>		Infrared LED
		Short sensing range		300mm 11.811inch	<b>UZA26</b>		
PNP output type	Thru-beam			10m 32.808ft.	<b>UZA205</b>	PNP open-collector transistor	Infrared LED
	Retroreflective	With polarizing filters		0.1 to 3m (*1) .328 to 9.843ft.	<b>UZA245</b>		Red LED
		For transparent object sensing Long sensing range		50 to 1,000mm (*1) 1.969 to 39.370inch	<b>UZA255</b>		Infrared LED
	Diffuse reflective	Long sensing range		800mm 31.496inch	<b>UZA235</b>		Infrared LED
		Short sensing range		300mm 11.811inch	<b>UZA265</b>		

Cautions: Mounting bracket is not supplied with UZA series so that users' can select it in accordance with mounting methods.

Purchase optional sensor mounting brackets (five types) are available for users' need. See next page.

(\*1) : The sensing range of the retroreflective sensor is the figure using a **UZZ112** reflector.

Possible setting range of the reflector is indicated as a sensing range. Therefore, the sensor can detect an object within a sensing range of 0.1m .328ft.(**UZA25**□ : 50mm 1.969inch).

**Self-diagnosis output type** (Equipped for NPN output type only and not equipped for **UZA25**□).

Self-diagnosis output type is also available.

**A package without a reflector**

A package without a reflector is also available for the model Nos. of **UZA24**□ and **UZA25**□.

**Plug-in connector type** (Not available with the self-diagnosis output type)

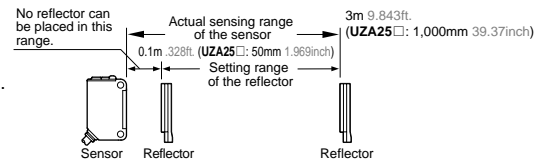
The sensor with a connector is also available. When ordering this type, add suffix "A" at the end of the model number. Purchase a mating cable separately.

e. g.) The connector type for **UZA20** is "**UZA20A**".

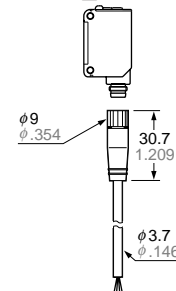
### •Mating cable

Type	Model No.	Description
Straight	<b>UZZ8031</b>	Length: 2m 6.562ft.
	<b>UZZ8032</b>	Length: 5m 16.404ft.
Elbow	<b>UZZ8131</b>	Length: 2m 6.562ft.
	<b>UZZ8132</b>	Length: 5m 16.404ft.

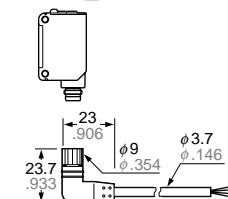
Cable type with four 0.5mm<sup>2</sup> conductors  
Outer diameter :  $\phi 7\text{mm}$   $\phi .276\text{inch}$   
With the connector on one end.  
Two cables a set.



**UZA803**□



**UZA813**□



## OPTION

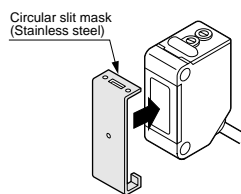
Component	Model No.	Description	
Circular slit mask (For thru-beam sensor only)	<b>UZA801</b> ( $\phi 0.5\text{mm}$ $\phi .020\text{inch}$ )	When fitted to one side	Sensing range: 400mm 15.748inch [UZA20□] Min. sensing object: $\phi 12\text{mm}$ $\phi .472\text{inch}$
		When fitted to both sides	Sensing range: 20mm .787inch [UZA20□] Min. sensing object: $\phi 0.5\text{mm}$ $\phi .020\text{inch}$
	<b>UZA802</b> ( $\phi 1\text{mm}$ $\phi .039\text{inch}$ )	When fitted to one side	Sensing range: 900mm 35.433inch [UZA20□] Min. sensing object: $\phi 12\text{mm}$ $\phi .472\text{inch}$
		When fitted to both sides	Sensing range: 100mm 3.937inch [UZA20□] Min. sensing object: $\phi 1\text{mm}$ $\phi .039\text{inch}$
	<b>UZA803</b> ( $\phi 2\text{mm}$ $\phi .079\text{inch}$ )	When fitted to one side	Sensing range: 2m 6.562ft. [UZA20□] Min. sensing object: $\phi 12\text{mm}$ $\phi .472\text{inch}$
		When fitted to both sides	Sensing range: 400mm 15.748inch [UZA20□] Min. sensing object: $\phi 2\text{mm}$ $\phi .079\text{inch}$
Rectangular slit mask (For thru-beam sensor only)	<b>UZA804</b> ( $0.5 \times 6\text{mm}$ $.020 \times .236\text{inch}$ )	One side slit-on	Sensing range: 2m 6.562ft. [UZA20□] Min. sensing object: $\phi 12\text{mm}$ $\phi .472\text{inch}$
		Both side slit-on	Sensing range: 400mm 15.748inch [UZA20□] Min. sensing object: $0.5\text{mm} \times 6\text{mm}$ $.020 \times .236\text{inch}$
	<b>UZA805</b> ( $1 \times 6\text{mm}$ $.039 \times .236\text{inch}$ )	One side slit-on	Sensing range: 3m 9.843ft. [UZA20□] Min. sensing object: $\phi 12\text{mm}$ $\phi .472\text{inch}$
		Both side slit-on	Sensing range: 1m 3.281ft. [UZA20□] Min. sensing object: $1\text{mm} \times 6\text{mm}$ $.039 \times .236\text{inch}$
	<b>UZA806</b> ( $2 \times 6\text{mm}$ $.079 \times .236\text{inch}$ )	One side slit-on	Sensing range: 5m 16.404ft. [UZA20□] Min. sensing object: $\phi 12\text{mm}$ $\phi .472\text{inch}$
		Both side slit-on	Sensing range: 400mm 15.748inch [UZA20□] Min. sensing object: $2\text{mm} \times 6\text{mm}$ $.079 \times .236\text{inch}$
Reflector (For retroreflective sensor only)	<b>UZZ110</b>	Sensing range: 0.1 to 1m .328 to 3.281ft. [UZA24□] 50 to 250mm 1.969 to 9.843inch [UZA25□] Min. sensing object: $\phi 30\text{mm}$ $\phi 1.181\text{inch}$ [UZA24□, UZA25□]	
	<b>UZZ111</b>	Sensing object: 0.1 to 1.5m .328 to 4.921ft. [UZA24□] 50 to 500mm 1.969 to 19.685inch [UZA25□] Min. sensing object: $\phi 35\text{mm}$ $\phi 1.378\text{inch}$	
Reflector mounting bracket	<b>UZZ1100</b>	Protective mounting bracket for <b>UZZ110</b> Protects the reflector from damage and keeps an exact alignment	
	<b>UZZ1110</b>	For <b>UZZ111</b>	
	<b>UZZ1120</b>	For <b>UZZ112</b>	
Reflective tape (For retroreflective sensor only) (*1)	<b>UZZ101</b>	Ambient temperature: -25 to + 50°C -13 to + 122°F Ambient humidity: 35 to 85%RH	Sensing range: 0.1 to 0.5mm .004 to .020inch [UZA24□]
	<b>UZZ102</b>	The performance of the reflective tape may deteriorate if it is used under a pressed condition. Do not cut the tape to use. Doing so may lose the performance.	Sensing range: 0.1 to 0.7mm .004 to .028inch [UZA24□] 0.15 to 0.4mm .006 to .016inch [UZA25□]
Sensor mounting bracket (*2)	<b>UZA821</b>	Foot angled mounting bracket Usable as the mounting bracket for <b>UZZ110</b>	
	<b>UZA822</b>	Foot di-angled mounting bracket Saving height and mountable on the flat Usable as the mounting bracket for <b>UZZ110</b>	
	<b>UZA823</b>	Protective mounting bracket Protects the sensor from damage and keeps an exact alignment	
	<b>UZA824</b>	Back di-angled mounting bracket	
	<b>UZA825</b>	Back angled mounting bracket	

(\*1) : **UZZ101** and **UZZ102** can not be used for **UZA25□**.

(\*2) : Two sets are required for the thru-beam sensor.

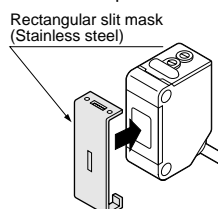
### Circular slit mask

Fitted to the front surface of the sensor with one-push.



### Rectangular slit mask

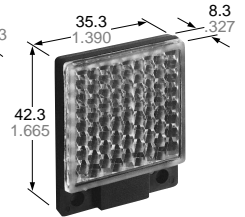
Fitted to the front surface of the sensor with one-push.



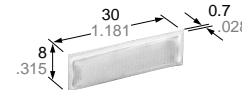
### Reflector •UZZ110



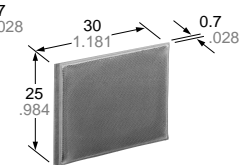
### •UZZ111



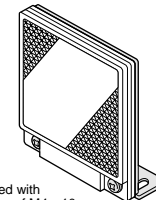
### Reflective tape •UZZ101



### •UZZ102

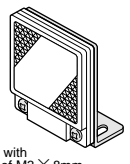


### Reflector mounting bracket •UZZ1120



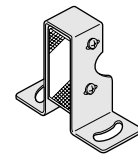
Supplied with  
2 pieces of M4 × 10mm  
.394 inch screws.

### •UZZ1110



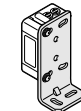
Supplied with  
2 pieces of M3 × 8mm  
.315 inch screws.

### •UZZ1100



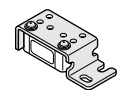
Supplied with  
2 pieces of M3 × 12mm  
.472 inch screws

### Sensor mounting bracket •UZA821



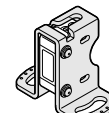
Supplied with  
2 pieces of M3 × 12mm  
.472 inch screws.

### •UZA822



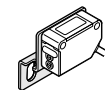
Supplied with  
2 pieces of M3 × 12mm  
.472 inch screws.

### •UZA823



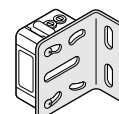
Supplied with  
2 pieces of M3 × 14mm  
.551 inch screws.

### •UZA824



Supplied with  
2 pieces of M3 × 12mm  
.472 inch screws.

### •UZA825



Supplied with  
2 pieces of M3 × 12mm  
.472 inch screws.

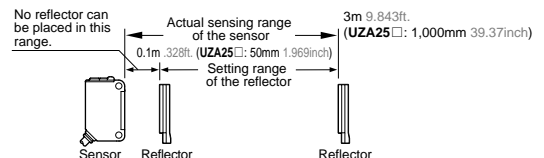
## SPECIFICATIONS

Item	Type		Thru-beam	Retroreflective		Diffuse reflective		
				With polarizing filters	For transparent object sensing	Long sensing range	Short sensing range	
	Model No.	NPN output type	UZA20	UZA24	UZA25	UZA23	UZA26	
		PNP output type	UZA205	UZA245	UZA255	UZA235	UZA265	
Sensing range			10m 32.808ft.	0.1 to 3m .328 to 9.843ft.(*1)	50 to 1,000mm 1.969 to 39.37inch(*1)	800mm 31.496inch (*2)	300mm 11.811inch (*2)	
Sensing object			Opaque object of $\phi 12\text{mm}$ $\phi .472\text{inch}$ or more	Opaque, translucent & specular object of $\phi 50\text{mm}$ $\phi 1.969\text{inch}$ or more (*1) (*3)	Opaque, translucent & transparent object of $\phi 50\text{mm}$ $\phi 1.969\text{inch}$ or more (*1)	Opaque, translucent & transparent object.		
Hysteresis			—————			15% or less of an operation distance		
Repeatability (vertical direction for a light axis)			0.5mm .020inch or less			1mm .039inch or less		
Supply voltage			12 to 24V DC±10% Ripple P-P: 10% or less					
Consumption		NPN output type	Emitter: 35mA or less Receiver: 25mA or less	30mA or less		35mA or less		
		PNP output type	Emitter: 35mA or less Receiver: 30mA or less	35mA or less		40mA or less		
Sensing output			<NPN output type> NPN open-collector transistor Sink current: 100mA max. Applied voltage: 30V DC or less Residual voltage: 1.5V or less (at 100mA sink current) 0.4V or less (at 16mA sink current)		<PNP output type> PNP open-collector transistor Source current: 100mA max. Applied voltage: 30V DC or less Residual voltage: 1.5V or less (at 100mA source current) 0.4V or less (at 16mA source current)			
			Output operation	Selection of Light-ON/Dark-ON by a switch				
			Short-circuit protection	Equipped				
Response time			1ms or less					
Operation indicator			Red LED (lights up when the sensing output is in the ON state)					
Stability indicator			Green LED (lights up at the stable light-receiving or the stable light-interrupted conditions)					
Power indicator			Red LED (lights up while the power is supplied)	—————				
Sensitivity adjuster			Equipped with a continuously variable adjuster					
Automatic crosstalk prevention function			—————	Two units of sensors can be mounted closely.	—————	Two units of sensors can be mounted closely		
Environmental resistance	Protection		IP67 (IEC)					
	Ambient temperature		-25 to + 55°C -13 to 131°F (No dew condensation nor icing allowed), Storage: -30 to + 70°C -22 to 158°F					
	Ambient humidity		35 to 85%RH, Storage: 35 to 85%RH					
	Ambient light		Sun light: 10,000ℓ × at the light-receiving face, Incandescent light: 3,000ℓ × at the light-receiving face					
	Noise		Power line: 240Vp with 0.5μs pulse duration (28 to 100Hz), Radiation: 300Vp with 10ms cycle and 0.5μs pulse duration (by a noise simulator)					
	Withstand voltage		1,000V AC applied between the live parts and enclosure for 1 min.					
	Insulation		20MΩ min. applied between the live parts and enclosure at 250V DC					
	Vibration		1.5mm amplitude at the frequency of 10 to 500Hz in each of X, Y and Z directions for 2 hours each in the power OFF state					
	Shock		500m/s <sup>2</sup> {approx. 50G} impulse in each of X, Y and Z directions for 3 times each in the power OFF state					
Emitting element			Infrared LED (modulated)	Red LED (modulated)	Infrared LED (modulated)			
Material			Enclosure-Lens-Indicator cover: Polycarbonate, Front cover: Polycarbonate (Acrylic for UZA24□)					
Cable			0.2mm <sup>2</sup> × 3 cores with 2m of oil resistant cable (2 cores for the emitter only)					
Cable extension			Extendable up to 100m 328.084ft. by using 0.3mm <sup>2</sup> or more cable (Thru-beam sensor: each emitter and receiver)					
Weight			Emitter: Approx. 45g 1.59oz Receiver: Approx. 50g 1.76oz	Approx. 50g 1.76oz				
Accessories			Screwdriver for the sensitivity adjustment : 1pc	UZZ112 (reflector): 1pc. Screwdriver for the sensitivity adjustment: 1pc.		Screwdriver for the sensitivity adjustment: 1pc.		

(\*1): The sensing range and sensing object of the retroreflective sensor is the figure using a **UZZ112** reflector. Possible setting range of the reflector is indicated as a sensing range. Therefore, the sensor can detect the object within a sensing range of 0.1mm .004inch (**UZA25**□: 50mm 1.969inch)

(\*2): The sensing range of the diffuse reflective sensor is the figure using an object of non-glossy white paper (200 $\times$ 200mm 7.874 $\times$ 7.874inch).

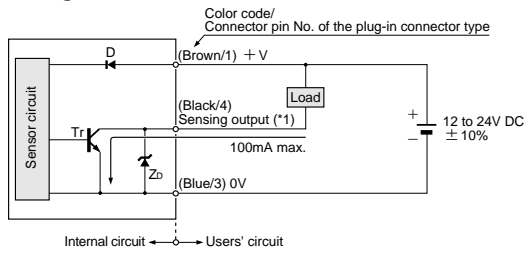
(\*3): The beam sensor of retroreflective mode with polarizing filters may not stably detect specular or glossy objects over transparent film. Refer to "PRECAUTIONS FOR PROPER USE"  
(e.g.): Can wrapped by clear film  
Aluminum sheet covered by plastic film  
Silver sticker or paper with transparent membrane.



## TYPICAL WIRING DIAGRAMS

### NPN output type

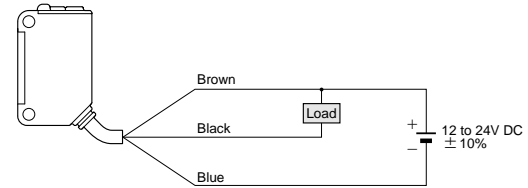
#### I/O circuit diagram



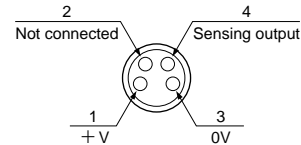
(\*1): The emitter of the thru-beam sensor is not incorporated with the sensing output.

Symbol...D : Reverse polarity protection diode  
ZD : Surge absorption zener diode  
Tr : NPN output transistor

#### Wiring diagram

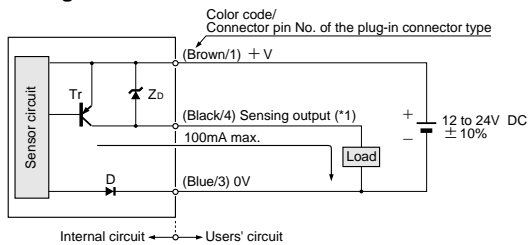


#### Connector pin position



### PNP output type

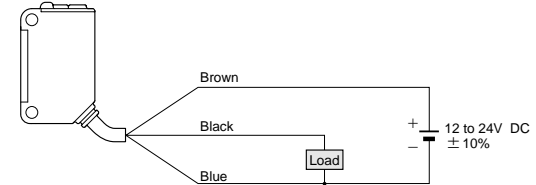
#### I/O circuit diagram



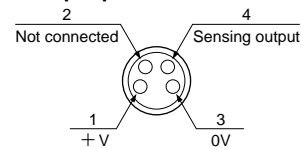
(\*1): The emitter of the thru-beam sensor is not incorporated with the sensing output.

Symbol...D : Reverse polarity protection diode  
ZD : Surge absorption zener diode  
Tr : PNP output transistor

#### Wiring diagram



#### Connector pin position

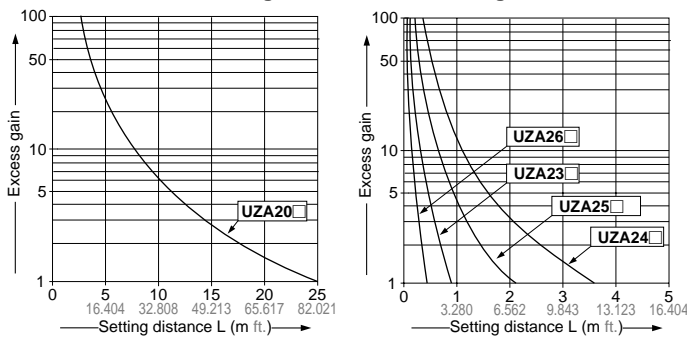


## SENSING FIELDS

These are typical sensing fields, which may vary slightly from unit to unit.

### All models

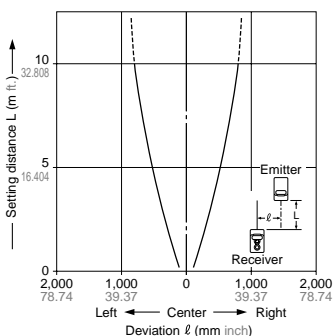
#### Correlation between setting distance and excess gain



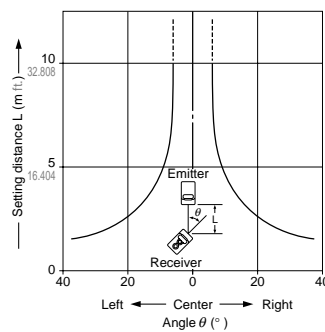
### UZA20

#### Thru-beam

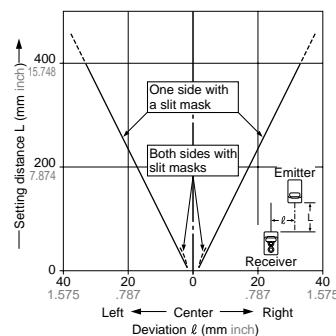
#### Parallel deviation



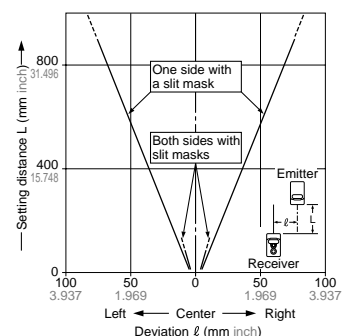
#### Angular deviation



#### Parallel deviation with circular slit masks (φ0.5mm .020inch)



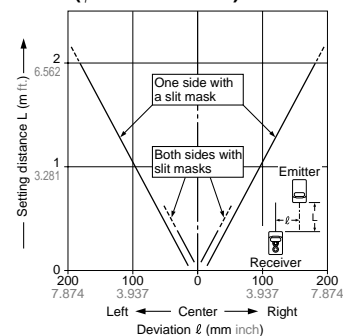
#### Parallel deviation with circular slit masks (φ1mm .039inch)



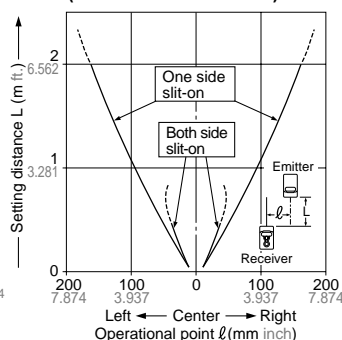
## SENSING FIELDS

These are typical sensing fields, which may vary slightly from unit to unit.

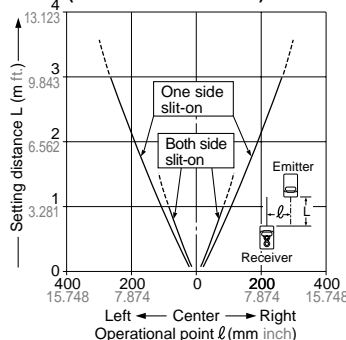
**Parallel deviation with circular slit masks ( $\phi 2\text{mm}$  .079inch)**



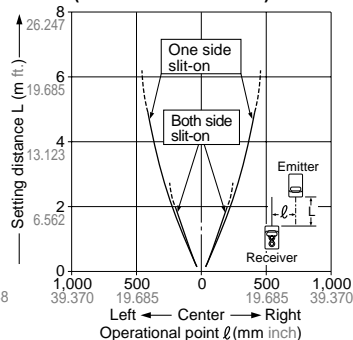
**Parallel deviation with rectangular slit masks ( $0.5 \times 6\text{mm}$  .020  $\times$  .236inch)**



**Parallel deviation with rectangular slit masks ( $1 \times 6\text{mm}$  .039  $\times$  .236inch)**



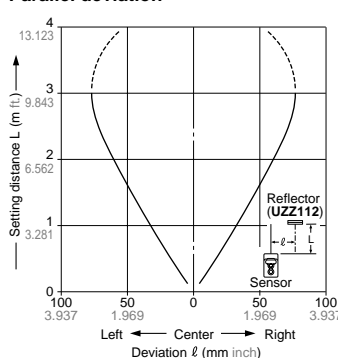
**Parallel deviation with rectangular slit masks ( $2 \times 6\text{mm}$  .079  $\times$  .236inch)**



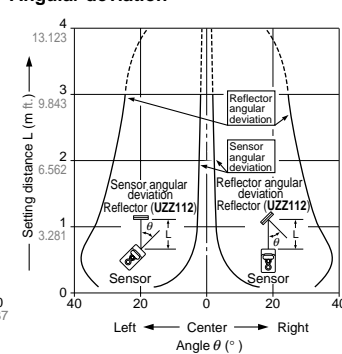
### UZA24

Retroreflective

**Parallel deviation**



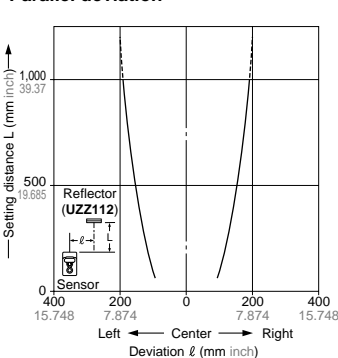
**Angular deviation**



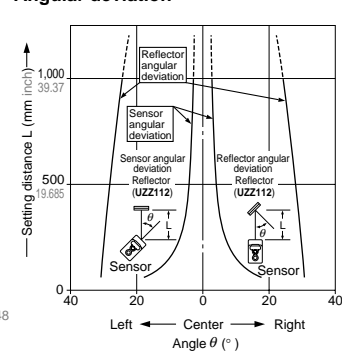
### UZA25

Retroreflective

**Parallel deviation**



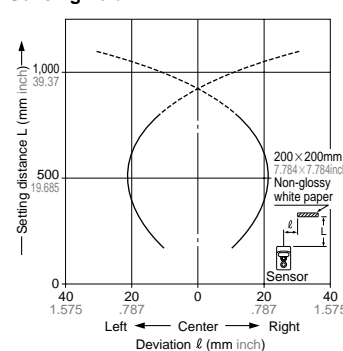
**Angular deviation**



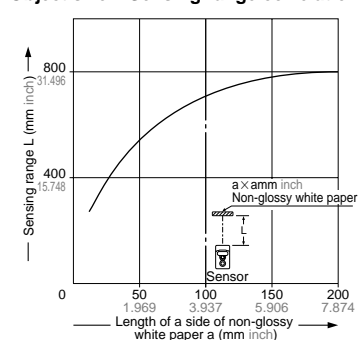
### UZA23

Diffuse reflective

**Sensing field**



**Object size – Sensing range correlation**



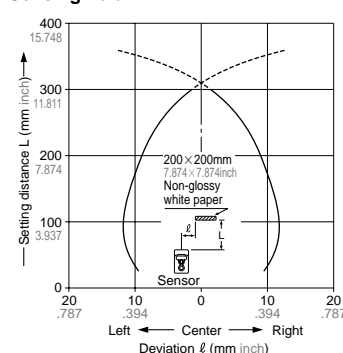
Note that the sensing range decreases if a sensing object is smaller than the standard size (a non-glossy white paper:  $200 \times 200\text{mm}$   $7.874 \times 7.874\text{inch}$ ) as shown in the graph on the left.

(The curve shows the figure obtained when the sensor is adjusted to detect a  $200 \times 200\text{mm}$   $7.874 \times 7.874\text{inch}$  non-glossy white paper at the sensing range of 800mm 31.496inch.)

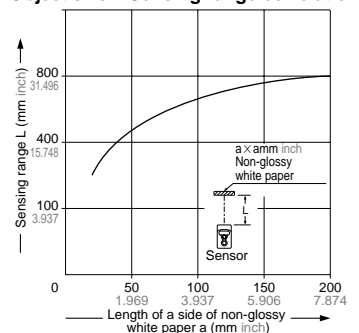
### UZA26

Diffuse reflective

**Sensing field**



**Object size – Sensing range correlation**



Note that the sensing range decreases if a sensing object is smaller than the standard size (a non-glossy white paper:  $200 \times 200\text{mm}$   $7.874 \times 7.874\text{inch}$ ) as shown in the graph on the left.

(The curve shows the figure obtained when the sensor is adjusted to detect a  $200 \times 200\text{mm}$   $7.874 \times 7.874\text{inch}$  non-glossy white paper at the sensing range of 300mm 11.811inch.)

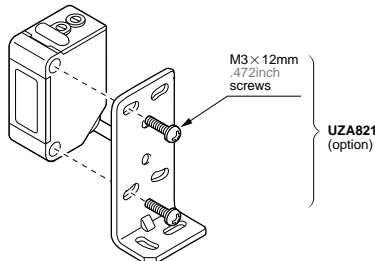
## PRECAUTIONS FOR PROPER USE



These products are **not** safety sensors and are **not** designed or intended to be used to protect life and prevent bodily injury or property damage.

### Mounting

Tightening torque should be 0.5N·m{5.1kgf·cm} or less.



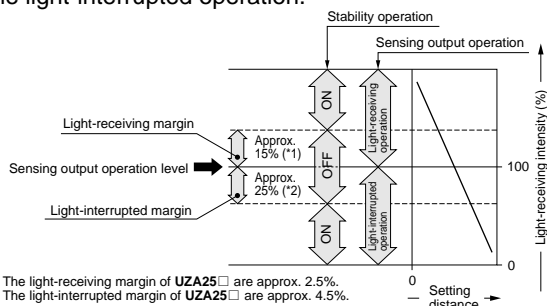
### Operation mode selection switch

	Light-ON mode is obtained when the switch is turned fully counterclockwise.
	Dark-ON mode is obtained when the switch is turned fully clockwise.

### Stability indicator

The stability indicator (green) lights up when the light-receiving intensity of the signal light is sufficient against the operation level.

If the light-receiving level where the stability indicator lights up, the sensor can detect stably without affecting the temperature and the voltage change at the light-receiving operation and the light-interrupted operation.



### Sensitivity setup

①		Turn the sensitivity adjuster over counterclockwise, set the min. sensitivity position (MIN.).
②		Turn the sensitivity adjuster clockwise slowly at the "Light-receiving" condition, check the point A where the sensor turns on in the "light" state.
③		Turn the sensitivity adjuster clockwise at the "Light-interrupted" condition, check the point B where the sensor turns off in the "light" state after operating at the light-receiving condition. (When the sensor does not operate, at the "light" state with turning it over clockwise, the position where turned it over is the point (B).)
④		The optimum position is halfway between point A and B.

(\*1): Turn the sensitivity adjuster slowly with the attached driver. If turn it over, be aware the sensor may be damaged.

	"Light" state	"Dark" state
Thru-beam		
Retro-reflective		
Diffuse reflective		

### Wiring

Do not supply power while wiring.

Verify that supply voltage ripple is within the rating.

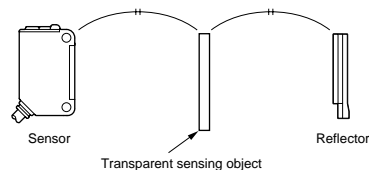
With a commercial switching regulator, ground the F.G. terminal.

Where equipment generating noise such as a switching regulator or an inverter motor is placed around the sensor, ground its F.G. terminal.

Do not run the sensor cable along any high-voltage or power cable in parallel or in a same raceway. It may cause a malfunction by induction.

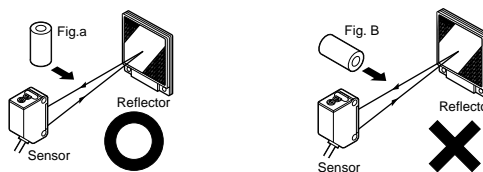
### Transparent object sensing UZA25□ of the retroreflective sensor

The optimum sensing is possible when the sensing position of a transparent sensing object is set at the center of the sensor and the reflector. If setting the sensing position near the sensor or the reflector, the sensing may be unstable. In this case, set the sensing position at the center of the sensor and the reflector.



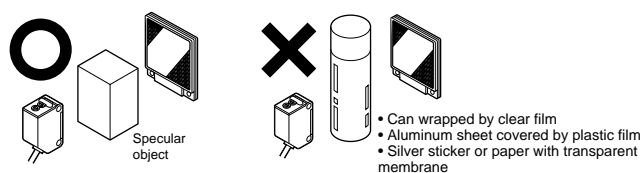
When the sensor detects a rough plastic receptacle or glass bin, the light-receiving intensity may differ in accordance with the sensing position or direction. Adjust the sensitivity by turning the sensing object and confirms the stable sensing condition.

If your object is a specular cylinder, feed it with standing, not lying, as the figure A. The sensor may fail to detect the lying object as the figure B.



### UZA24□, Retroreflective mode with polarizing filters

As light is polarized by the transparent film or membrane, UZA24□ may not detect the object covered or wrapped by it.



### Others

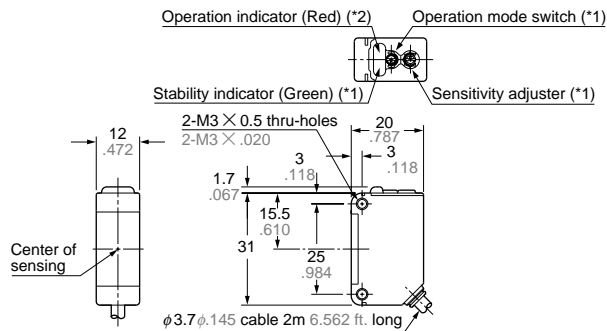
Do not use the sensor output signal for 50ms immediately after the power is supplied to the sensor.

Avoid places where the sensor may be directly exposed to fluorescent lamps with rapid-starters or high frequency lighting as it may affect the sensing performance.

## DIMENSIONS (Unit: mm inch)

### UZA2□□

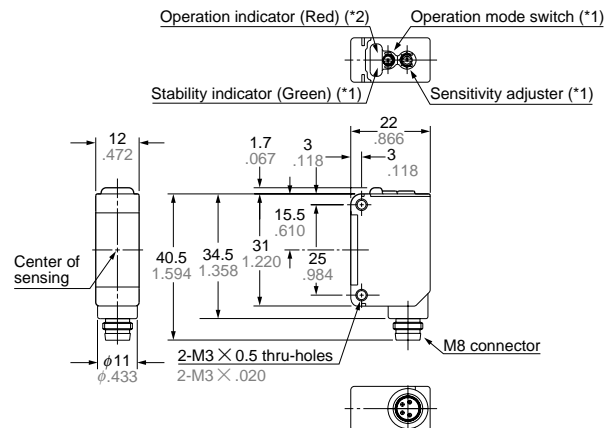
#### Sensor



- (\*1): The emitter of the thru-beam sensor is not incorporated with it.  
 (\*2): It is substituted with the power indicator (red) on the emitter of the thru-beam sensor.

### UZA2□□A

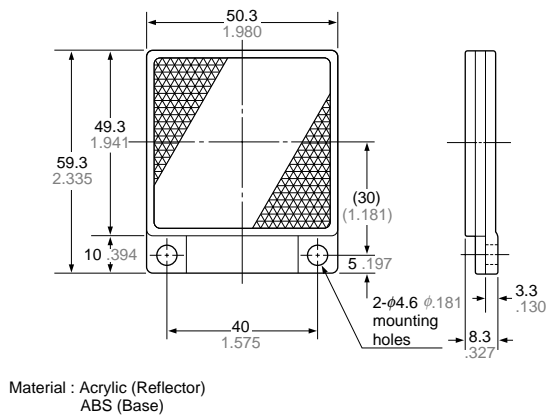
#### Sensor



- (\*1): The emitter of the thru-beam sensor is not incorporated with it.  
 (\*2): It is substituted with the power indicator (red) on the emitter of the thru-beam sensor.

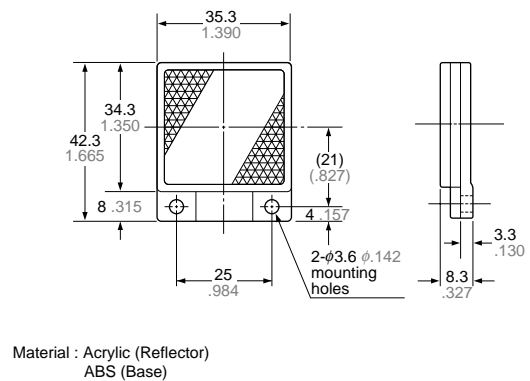
### UZZ112

#### Reflector (accessory for the retroreflective sensor)



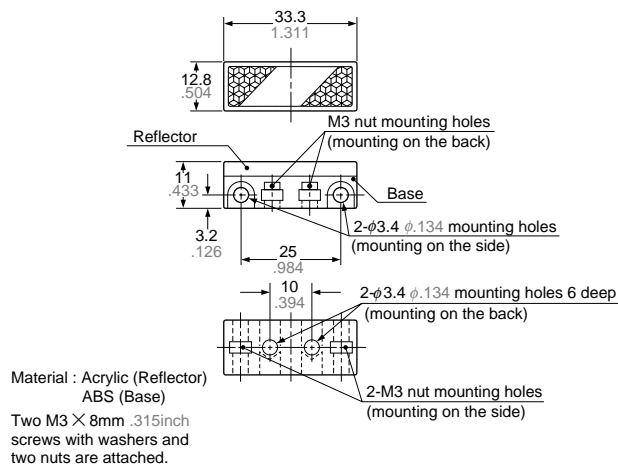
### UZZ111

#### Reflector (option)



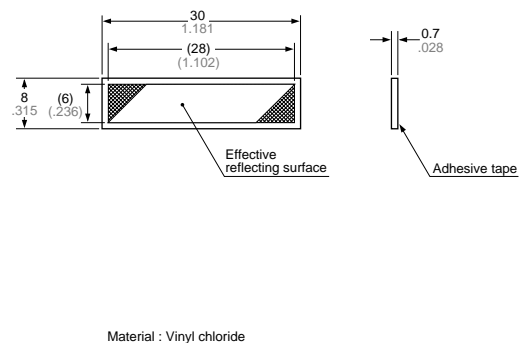
### UZZ110

#### Reflector (option)



### UZZ101

#### Reflective tape (option)

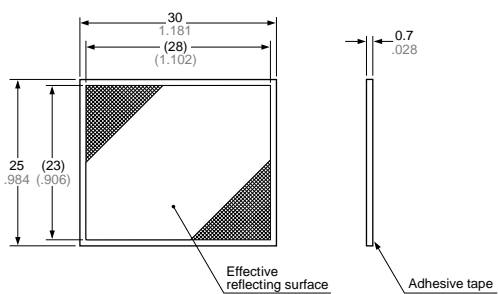




**DIMENSIONS (Unit: mm inch)**

<b>UZZ102</b>	Reflective tape (option)
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**UZZ102** Reflective tape (option)

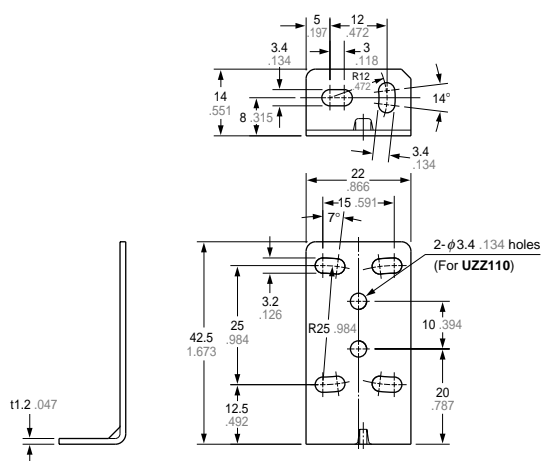


Material : Vinyl chloride

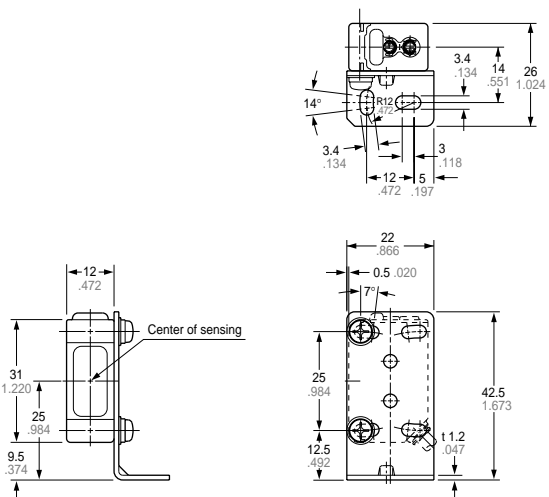
<b>UZA821</b>	Sensor mounting bracket (option)
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<b>UZA821</b>	Sensor mounting bracket (option)
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### Mounting drawing



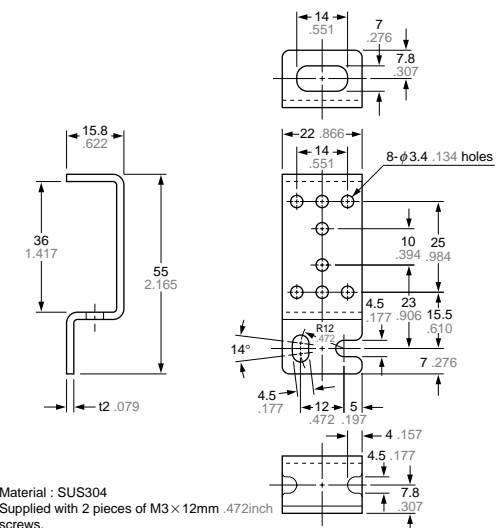
Material : SUS304  
Supplied with 2 pieces of M3×12 mm .472inch  
screws.



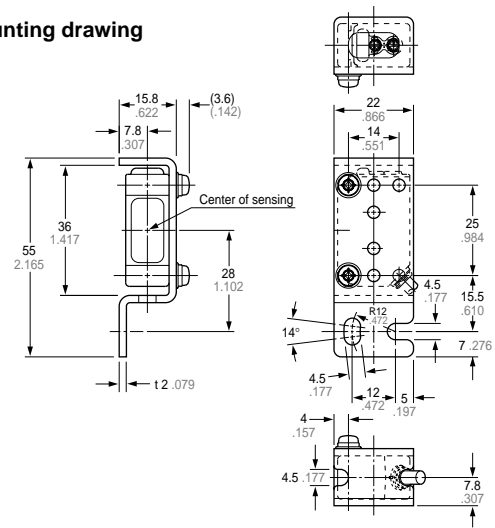
<b>UZA822</b>	Sensor mounting bracket (option)
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<b>UZA822</b>	Sensor mounting bracket (option)
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### Mounting drawing



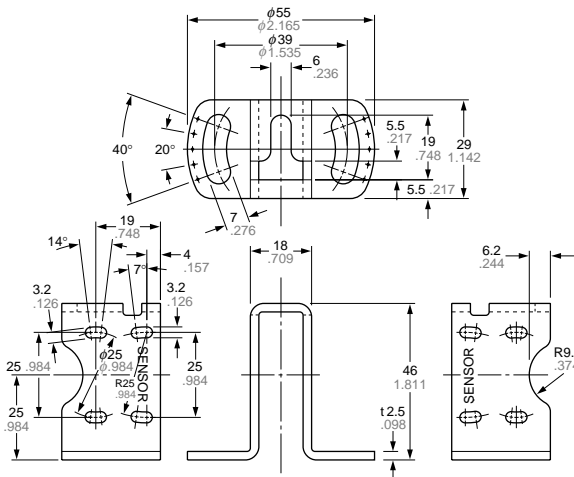
Material : SUS304  
Supplied with 2 pieces of M3×12mm .472inch  
screws.



## DIMENSIONS (Unit: mm inch)

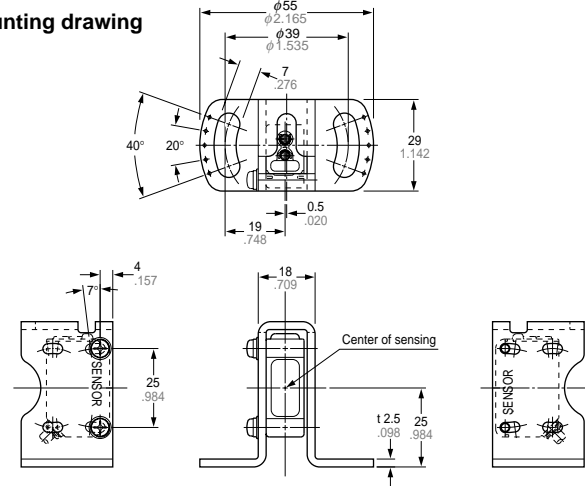
### UZA823

#### Sensor mounting bracket (option)



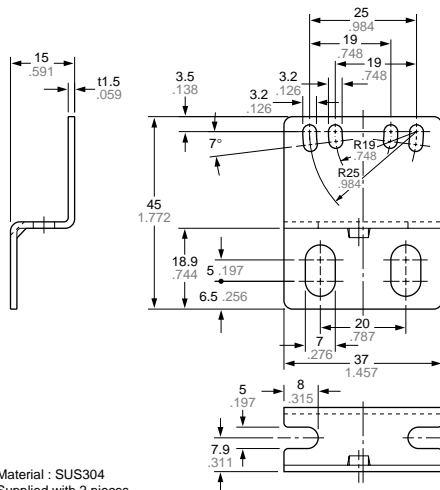
Material : SUS304  
Supplied with 2 pieces  
of M3 x 14mm .551inch screws.

#### Mounting drawing



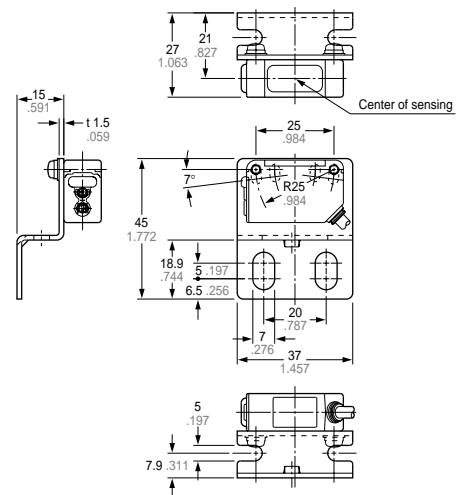
### UZA824

#### Sensor mounting bracket (option)



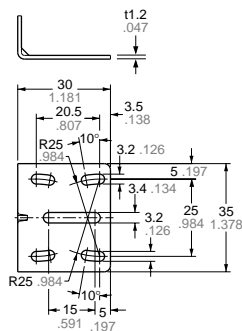
Material : SUS304  
Supplied with 2 pieces  
of M3 x 12mm .472inch screws.

#### Mounting drawing



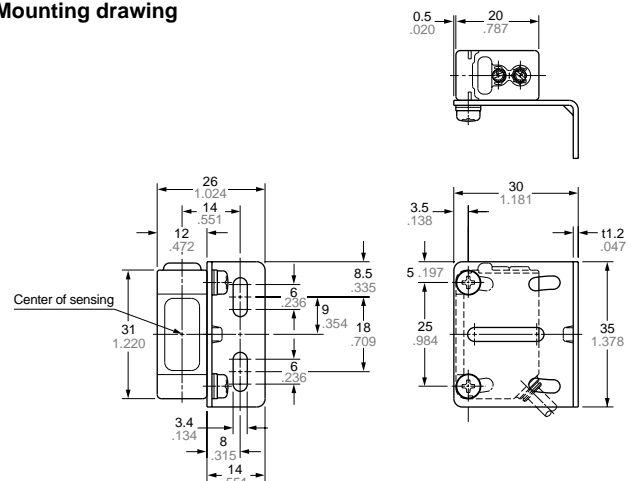
### UZA825

#### Sensor mounting bracket (option)



Material : SUS304  
Supplied with 2 pieces  
of M3 x 12mm .472inch screws.

#### Mounting drawing

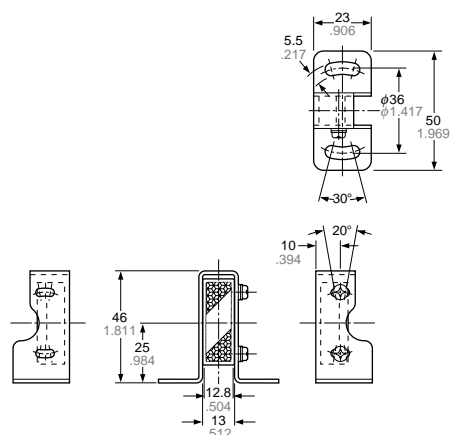
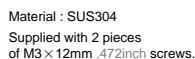


**DIMENSIONS (Unit: mm inch)**

UZZ1100	Mounting bracket for <b>UZZ110</b> reflector (option)
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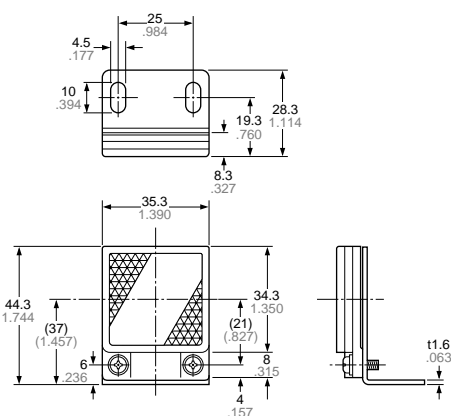
Mounting bracket for **UZZ110** reflector (option)

### Mounting drawing



Mounting bracket for **UZZ111** reflector (option)

### Mounting drawing



Mounting bracket for **UZZ112** reflector (option)

### Mounting drawing

