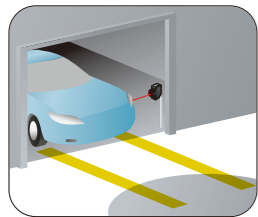


# Photoelectric Sensor Y series



- Complete selection of sensing types including BGS and Transparent Object Detection.
- M18 Threaded Front Mounting.
- Stable Sensing Even For Plastic/Glass.

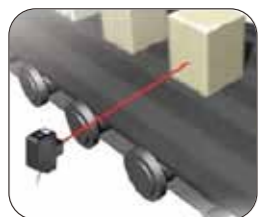
## Applications



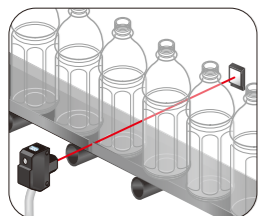
Verifying car position



For Detecting PWB



For Conveyor



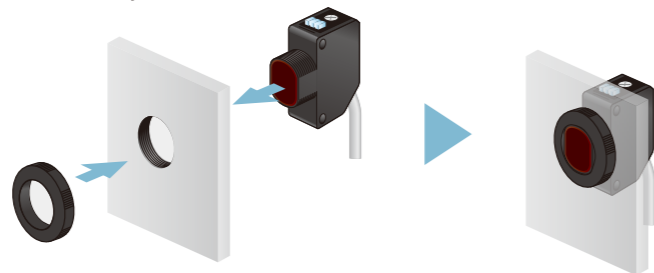
For Beverage industry

## Wide Selection

The Y series is offered with seven different models. Thru-beam, Diffuse, Retro-reflective, Transparent object detection, Convergent Beam (two types) and BGS (Background suppression). There is a model for use in almost any application.

## M18 Threaded Front Mounting

The sensor can be easily mounted by inserting into an 18 mm opening. There are also conventional mounting holes in the sensor body for added flexibility.



## Pig-tail Connector

M12 pig-tail type are available for easy maintenance.



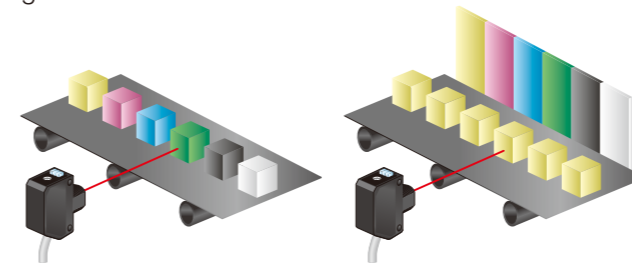
## Rugged Waterproof Construction

The sensor has an IP67 rating. It is ideal for use in applications where it may be exposed to water spray.



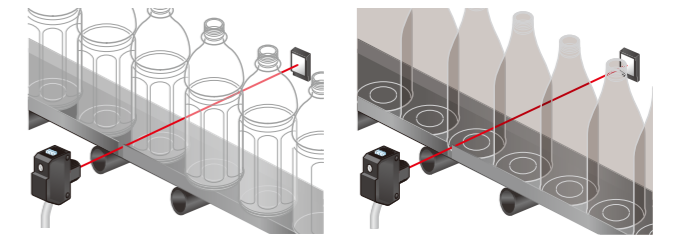
## BGS Sensing

BGS (Background Suppression) sensors are not influenced by the color or texture of the target, the sensor is also able to ignore changes in the background.



## Stable Sensing Even For Plastic/Glass

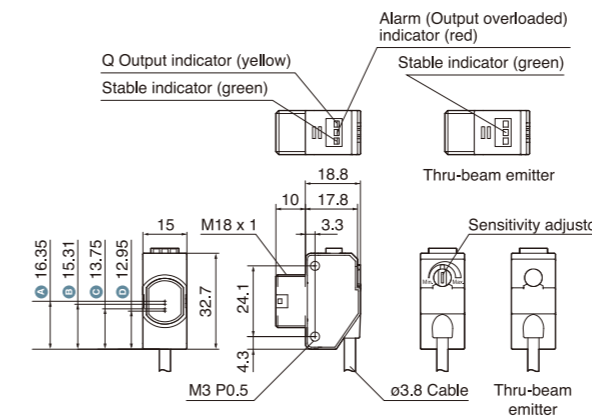
The YR-Q series was designed for the detection of transparent targets. These are ideally suited for clear plastic and glass bottle applications.



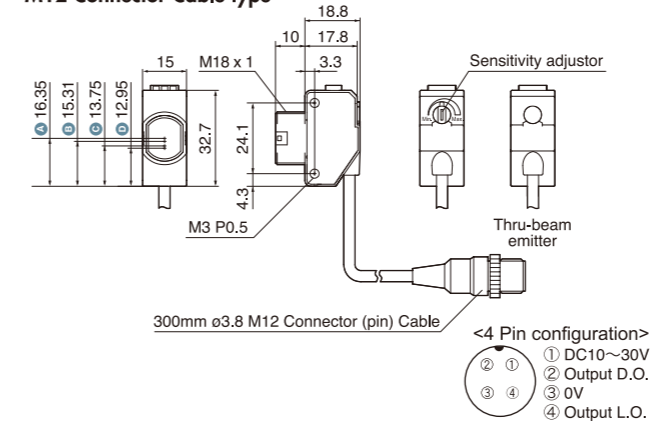
## Dimensions

### General Use Types except BGS

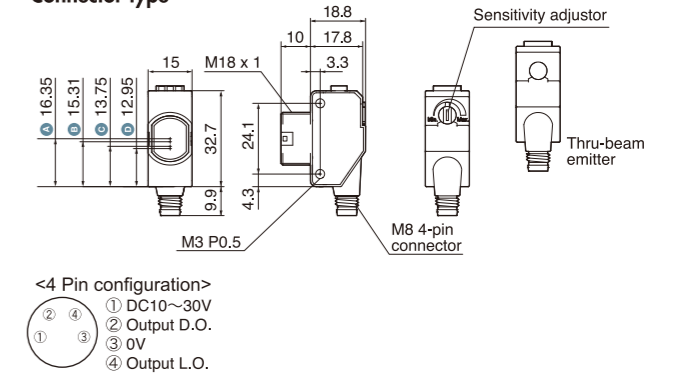
#### Cable type



#### M12 Connector Cable type



#### Connector type

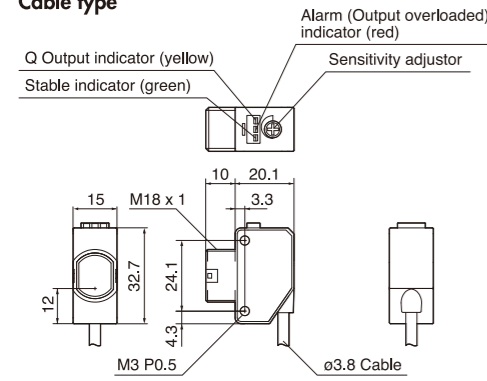


- A Thru-beam type
  - B Convergent Beam short range type
  - C Convergent Beam standard range type
  - D Retro-reflective / Diffuse reflective type
- (Unit : mm)

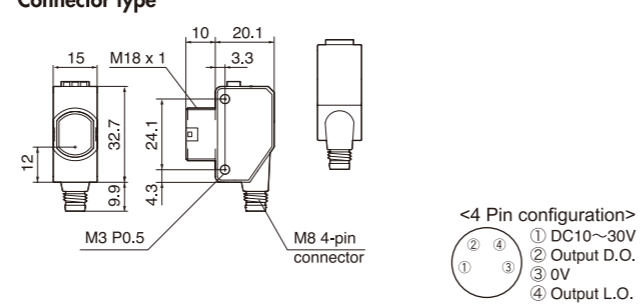
# Dimensions

## BGS Types

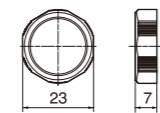
### Cable type



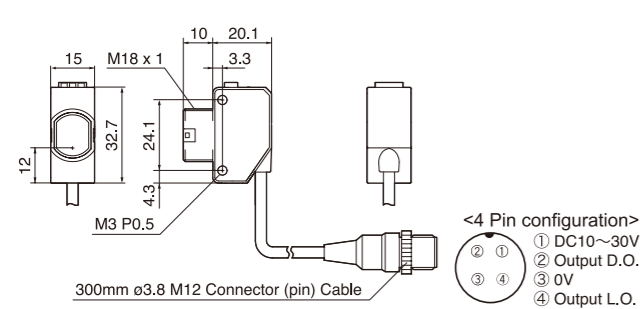
### Connector type



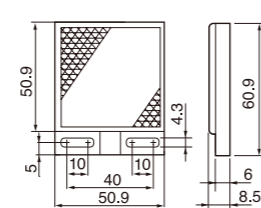
### M18 x 1 Nut



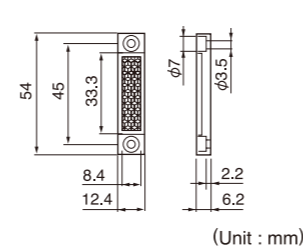
### M12 Connector Cable type



### V-61 for YR-140



### P45A for YR-Q39



# Specifications

Model (NPN / PNP different model)	Thru-Beam	Diffuse reflective	Polarized Retro-reflective	Retro - Glass	Convergent Beam regular focus	BGS
2 meter (approx. 78 inch) cable	YT-1180N / P	YD-15N / P	YR-140N / P	YR-Q39N / P	YD-L2N / P	BGS-Y8N / P
M8 QD	YT-1180CN / CP	YD-15CN / 15CP	YR-140CN / CP	YR-Q39CN / CP	YD-L2CN / CP	BGS-Y8CN / CP
M12 pig-tail	YT-1180N-M12 / P-M12	YD-15N-M12 / P-M12	YR-140N-M12 / P-M12	YR-Q39N-M12 / P-M12	YD-L2N-M12 / P-M12	BGS-Y8N-M12 / P-M12
Sensing distance	30m (1180 inch)	0.4m (15.7 inch)	3.5m (140 inch)	1m (39.3 inch)	43mm (1.7 inch)	200mm (7.9 inch) Setting range : 30-200mm
Light source	Red LED (visible)					
Hysteresis	N/A	20% max.	N/A	N/A	10% max.	5%
Response time	0.5msec					
LED Indicator	3 Indicators (green indicator only : Emitter of YT-1180) Yellow: output Green: stable Red: alarm - overload					
Operating mode	Light ON and Dark ON outputs provided					
Sensitivity adjustment	1turn potentiometer					4 turn potentiometer
Control output	NPN or PNP open collector, 100mA max. / 30VDC					
Shock resistance	100G , xyz three directions					
Environmental illuminance	Sunlight : 10,000 lux, Incandescent lamp : 3,000 lux max					
Operating temp / humidity	-25°C to 55°C / 35 to 85% RH					
Storage temp / humidity	-40°C to 70°C / 35 to 90 % RH					
Supply voltage	10 - 30VDC incl. 10% ripple					
Power consumption	emitter : 15mA max. 30mA max. receiver : 20mA max.					
Conformity	CE , JIS/C4525					
Circuit protection	Reverse polarity, transient voltages, Output overcurrent					
Material	ABS with 20% glass (case), PMMA (lens)					
Protection category	IEC 144, IP67					

# Options

### V-61 for YR-140



### P45A for YR-Q39



### JCN-S : M8 Straight type



JCN-S : 2 meter  
 JCN-5S : 5 meter  
 JCN-10S : 10 meter

### JCN-L : M8 L-shape type



JCN-L : 2 meter  
 JCN-5L : 5 meter  
 JCN-10L : 10 meter

# Reference (typical)

