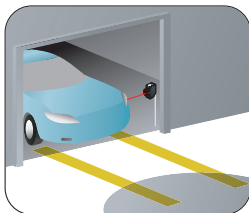


Photoelectric Sensor Y series

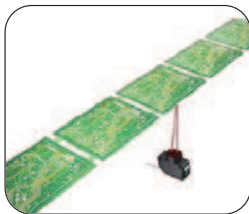


- Complete selection of sensing types including BGS and Transparent Object Detection.
- M18 Threaded Front Mounting.
- Stable Sensing Even For Plastic/Glass.

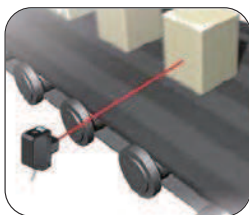
Applications



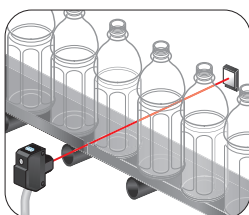
Verifying car position



For Detecting PCB



For Conveyor



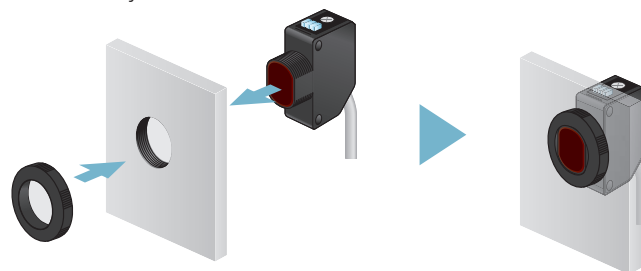
For Beverage industry

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.



C

C2

E

J

J2

J3

V

V2

V3

V4

SR-Q

S

Z
BGS-Z

Z2

Z3

ZM

K

BGS-2S

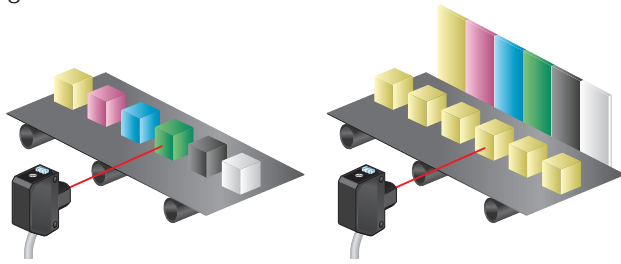
Y

DM-18T

Accessory

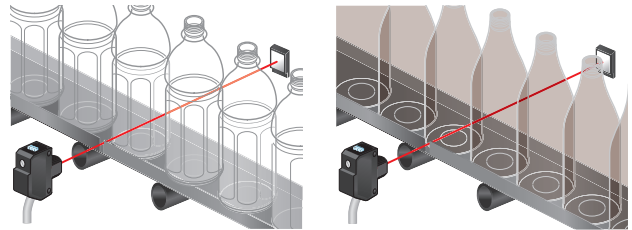
BGS Sensing

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

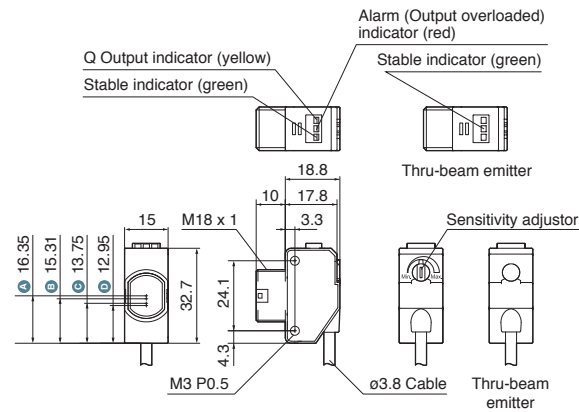
The YR-Q series was designed for the detection of transparent targets. These are ideally suited for clear plastic and glass bottle applications.



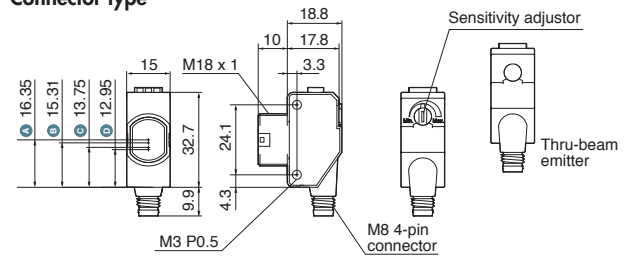
Dimensions

General Use Types except BGS

Cable type



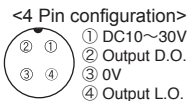
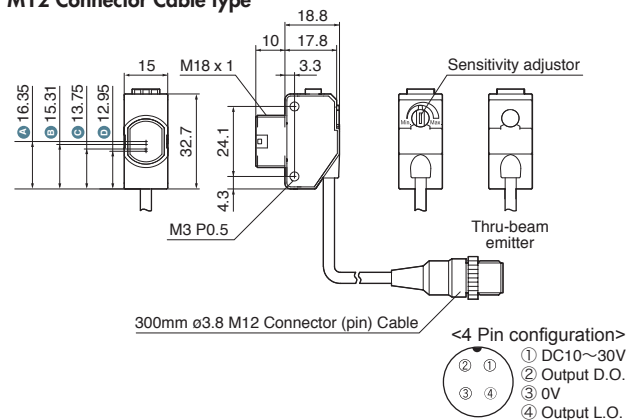
Connector type



<4 Pin configuration>



M12 Connector Cable 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)



C

C2

E

J

J2

J3

V

V2

V3

V4

SR-Q

S

Z

BGS-Z

Z2

Z3

ZM

K

BGS-2S

Y

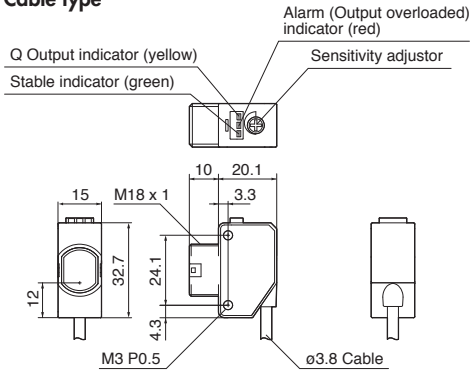
DM-18T

Accessory

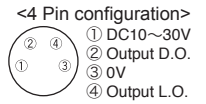
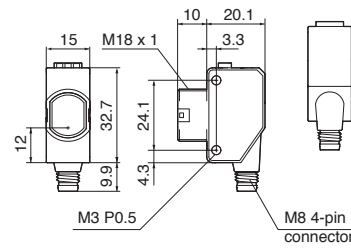
Dimensions

BGS Types

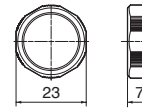
Cable type



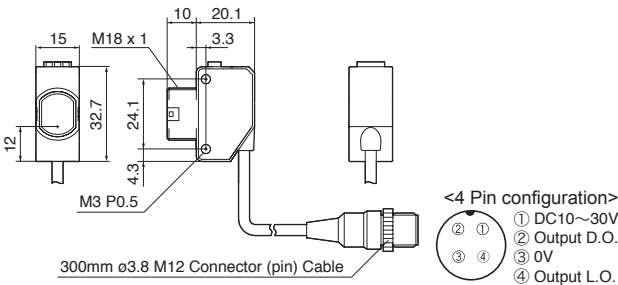
Connector type



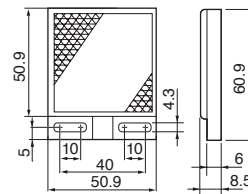
M18 x 1 Nut



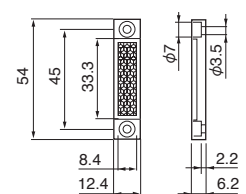
M12 Connector Cable type



V-61 for YR-140



P45A for YR-Q39



(Unit : mm)

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 | | | | | |
| Operation 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 | | | | | |
| Ambient 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



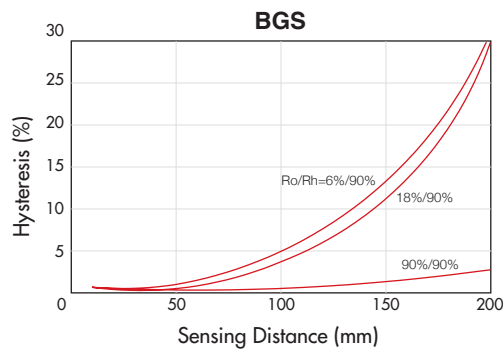
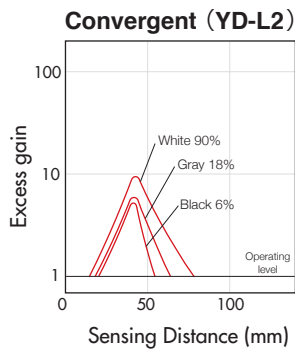
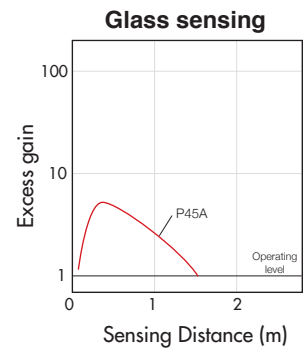
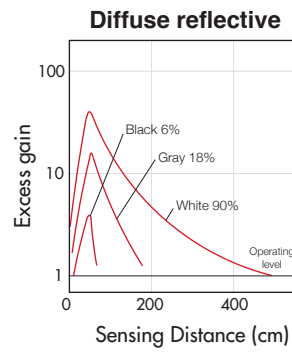
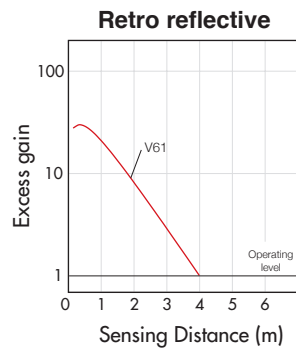
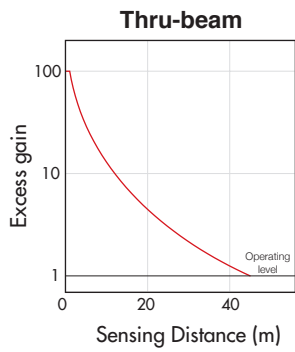
JCN-S : 2 meter
JCN-5S : 5 meter
JCN-10S : 10 meter

JCN-L : M8 L-shape type



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

Reference (typical)



- C
- C2
- E
- J
- J2
- J3
- V
- V2
- V3
- V4
- SR-Q
- S
- Z
- BGS-Z
- Z2
- Z3
- ZM
- K
- BGS-2S
- Y**
- DM-18T
- Accessory