



This product is a low profile sensor that is designed to be incorporated in a robot arm for the purpose of detecting glass boards for Liquid crystal or semiconductor wafer.

The optical system is adjusted to detect angled glass reliably.

Light-On open collector output can be obtained only with connected to 12V to 24V DC as an amplifier is built in.

Stability detection in warp and inclination of the glass

Two LED is used for the transmitter

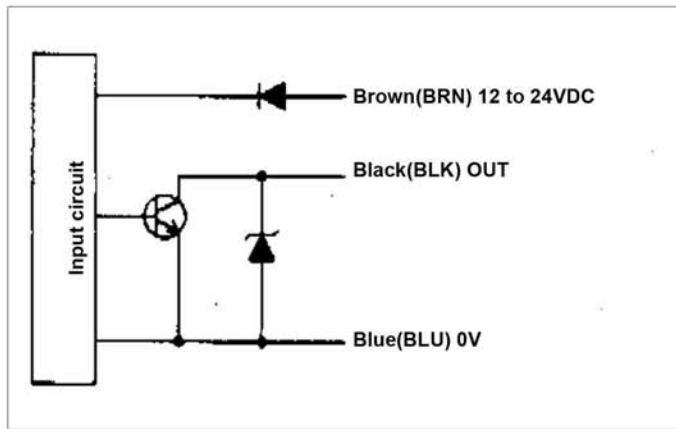
SPECIFICATION

| Model | ASG-S20R | ASG-Z15R |
|-------------------------|---|--|
| Detection | Diffuse reflection for exclusive use of glass detection | Zone type convergent reflection for exclusive use of glass detection |
| Detecting object range | Transparent glass 20mm or less to 25mm Max. | Transparent glass 3mm to 15mm 18mm Max. |
| Light source | 2pcs of red LED | |
| Light receiving element | Photo IC | |
| Power supply | 12 to 24V DC \pm 10% Ripple 10% | |
| Current | 25mA Max. | |
| Output mode | Light-on | |
| Rating | NPN open collector 30V DC 50mA Max. | |
| Output short protection | Equipped | |
| Indicator | Operation indicator 1 piece of orange LED | |
| Sensitivity volume | Unequipped | |
| Response time | 0.5mms Max. | |
| Cable | Flying lead 0.15mm ² x 3 wicks 2m | |
| Weight | Approx. 30g | |

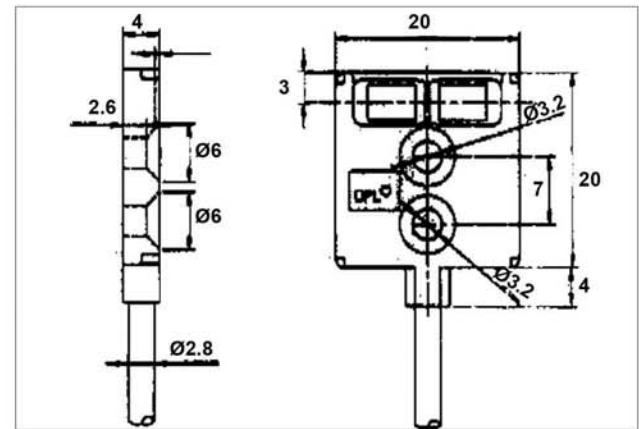
ENVIRONMENTAL PERFORMANCES

| | |
|-----------------------|--|
| Ambient light | 5000 lx. Max. |
| Operating temperature | -10 to 50C (Without condensation) |
| Humidity | 35% to 85% RH |
| Vibration resistance | 10 to 55Hz, 1.5mm double amplitude 2hr. in X, Y and Z directions |
| Enclosure protection | IP40 |

WIRING AND OUTPUT CIRCUIT

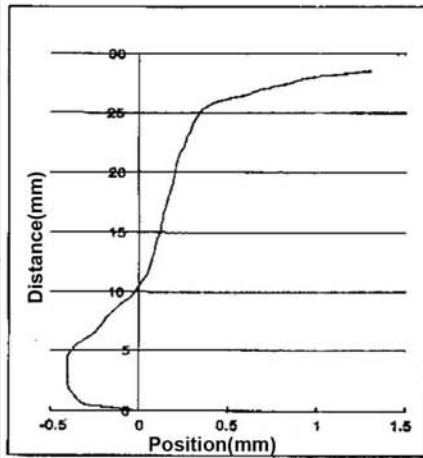


EXTERNAL DIMENSIONS

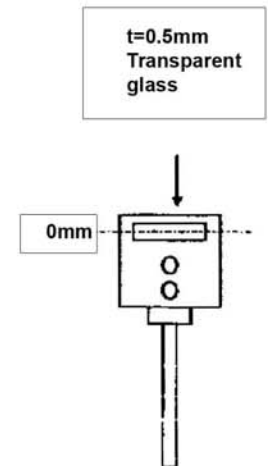
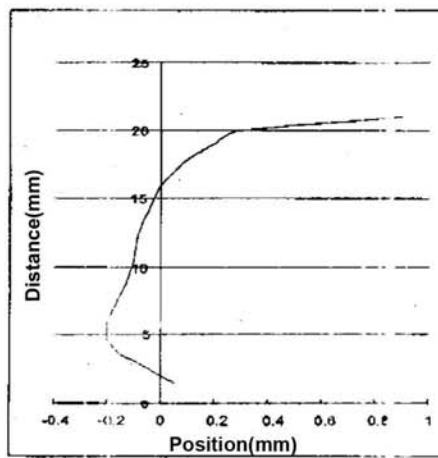


OPERATING POSITION CHARACTERISTICS

Model: ASG-S20R



Model: ASG-Z15R



DIFFERENCE BETWEEN ASG-S20R AND ASG-Z15R

S20R is a diffuse reflection type sensor that has wide operation range. Use this sensor on condition that there is no reflective object (transparent glass or the other object) 40mm or more ahead of sensor front.

This sensor can detect transparent glass even if it closely contacts the sensor.

Z15R is a zone type convergent reflection sensor that has wide operation range. This sensor is designed not to detect even when there is some transparent glass 40mm or more ahead of sensor front.

This sensor cannot operate when transparent glass contacts the sensor.

INSTALLATION AND PRECAUTION

- Use a M3 flat screw for mounting and tighten it lightly (0.15Nm Max.). An enclosure is likely to be broken when the screw is secured tightly.
- When this sensor is used, check if there is no obstacle around the sensor as sensitivity volume is not equipped with this sensor.
- This sensor can be also used as a low-profile general-purpose reflection sensor though it was developed for the purpose of detecting transparent glass, semiconductor wafer, etc.
- External dimension of cable is Ø2.8mm and 0.15mm² X 3 wicks. When soldered terminal is used, be careful to pressurize it because work cable is very thin.
- Avoid installation so that the sensor is directly face towards inverter type fluorescent lamp.

NOTE

- The product is warranted for 12 months after delivery.
- During the warranty period, we will only repair any defective parts or replace any defective products provided that the defectives are caused by our own responsibility.
- Please note that we shall not be responsible for any disaster or accident occurred when equipment with this product is built-in is used.