

# Grayscale detection color sensor

## ■ Features

1. Can detect any two objects with two different color.
2. Standard 3mm small spot
3. One key operation, all operations and functions can be operated by one key
4. Metal case, it is beautiful and generous.

## ■ Technical parameter

Type	Grayscale detection color sensor (Fit to identify any two different color, fit to grayscale detection)	
Model	NPN	CR-1G20N
	PNP	CR-1G20P
	NPN+PNP	CR-1G20NP
Detection distance	20mm	
Sensing object	Any two different color opaque objects	
Response time	0.5ms max	
Light source chromatogram	Green laser	
Light spot size	3mm (Round spot)	
Sensitivity adjustment	Key set	
Operating mode	Light on/Dark on (Can be changed by pushing down key for 10 second)	
Indication method	Output and power on: red LED. Stable operation: green LED	
Rated output current	NPN or PNP: 100mA (40V) max, residual Voltage: 1V max	
Protection circuit	Reverse polarity protection, Surge suppressor	
Supply voltage	12-24Vdc±10%	
Leakage current	20mA max	
IP Rating	IP66	
Operating luminosity	Incandescent lamp: 5000lux max, Sunlight: 20000lux max	
Operating temperature	-20 to 55 °C (with no icing or condensation)	
Operating humidity	35% to 95% (without condensation)	
Case material	Metal	

## ■ Operation method

1. Sensitivity setting: aim the light spot at the detected object, push down the button for 3 seconds, the indicator light will flash 6 times then go out. Aim the light spot at the background or the contrast object, push down the button for less than 1 second, the indicator light restore, the setting is successful, then can detect object.
2. Light-on/Dark-on mode conversion  
Push down the button for 10 seconds, the indicator light color will change, so the mode changes successfully.

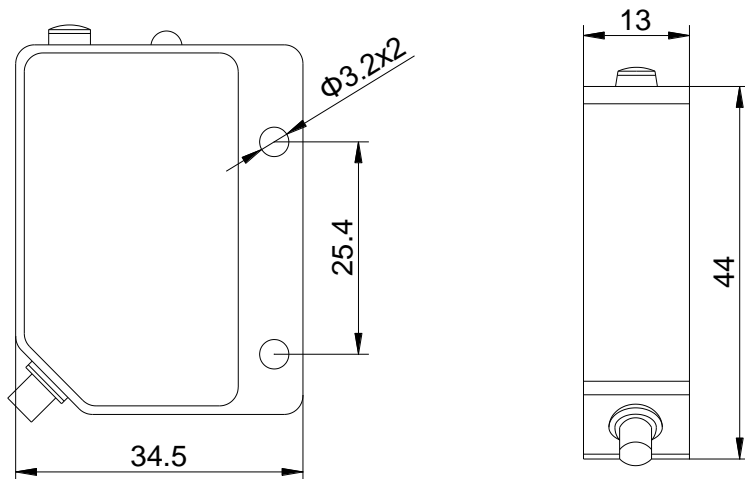
## ■ Wiring method

Brown cable --- 12-24VDC

Blue cable ----0VDC

Black cable --- NPN output

## ■ Dimensions (Unit: mm)



## ■ Note

1. Please do not shine strong ray into the mirror of sensor receiver and sender.
2. This product is not fit to detect mirror surface.
3. During use, if condensation, oil, or dust occurs on the sensor's receiving and sending mirror surfaces, please wipe the mirror surface with a clean, dry and soft cloth, then can work normally.
4. If the sensor's working environment is oily and dusty environment, please keep the sensor mirror clean.