

# TECHNICAL DATA SHEET

## WHITE LED LIGHT SOURCE LONG-RANGE COLOR-CODED SENSORS DK-GS-C500 Series



### Contents

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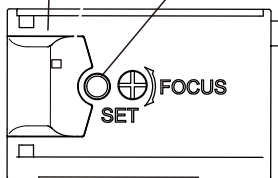
## Product characteristics

- White LED light source, wide wavelength, can stably detect color or appearance differences;
- 500mm long-distance detection;
- Good anti-shake performance, with background suppression function;
- DK-GS-C500 can adjust the spot size;
- Color standard can store 9 colors at the same time;
- Optional with IO-LINK communication.

## Product Analysis

Indicator light  
 Off: Output OFF  
 Orange: Output ON  
 Red (flashing): Error

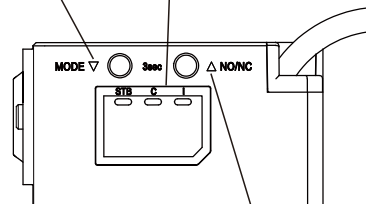
Buttons  
 Different methods of adjusting sensitivity and different operation methods



[ ▼ ]Buttons

- Change the setting value in less than 1s
- Enter the setting screen in more than 3s

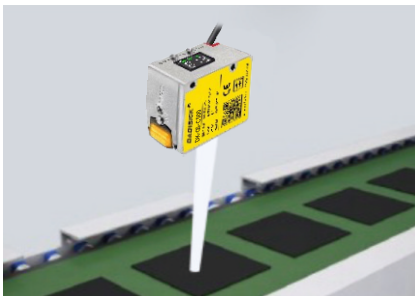
STB: Green light turns on when light is available  
 C: Green light turns on when in C/C+I mode  
 I: Green light turns on when in C+I/Super I mode



[ ▲ ]Buttons

- Less than 1s to change the setting value
- More than 3s to switch between N · O/N.C

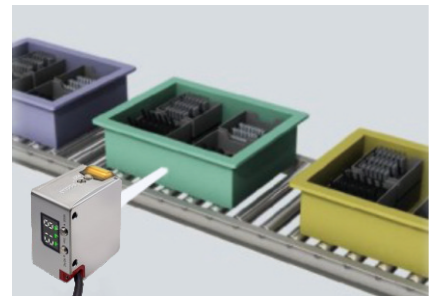
## Application example



Detect the presence of thin sheets



Detect the presence of glue

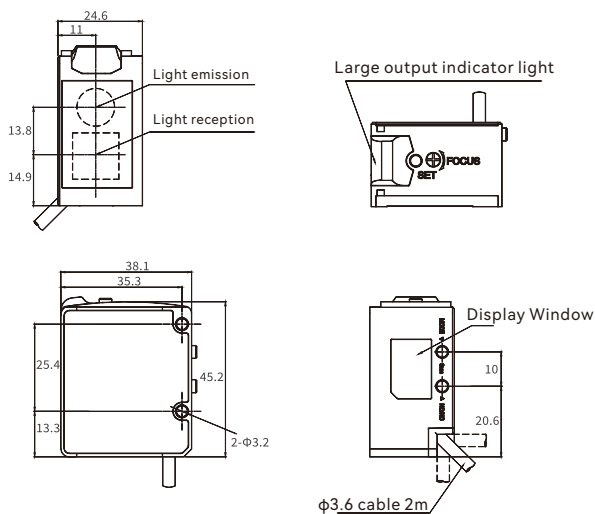


Detect the color of objects on the conveyor belt

## Product Parameters

Model	NPN / PNP	DK-GS-C500N / DK-GS-C500P
Detection distance	50 to 500 mm	
Minimum light spot diameter	Approx. $\phi 3.5$ mm (at 100 mm) Approx. $\phi 9$ mm (at 250 mm) Approx. $\phi 20$ mm (at 500 mm)	
Response time	200 $\mu$ s/1 ms/10 ms/100 ms/500 ms	
Light source	White LED	
Mutual interference reduction	Set different frequencies, up to 2 units	
Power supply	Voltage	10 to 30 VDC with ripple (P-P) 10%, Class 2 or LPS
	Current Consumption	50mA or less at 24V 100mA or less at 12V
Timer	OFF/On delay/Off delay/Single	
I/O	Control output	NPN open collector/PNP open collector switchable 30V or less, 100mA or less, residual voltage 2V or less N.O./N.C. switchable
	External input	Tuning/stop transmission switch type
Protection circuit	Power reverse connection protection, power surge protection, output overcurrent protection, output surge protection	
Ambient light	Incandescent lamp: 10000Lx or less Sunlight: 20000Lx or less	
Ambient temperature	-20 to +50°C (no freezing)	
Relative humidity	35 to 85%RH (no condensation)	
Impact resistance	1,000m/s <sup>2</sup> , 6 times in each direction of X, Y, and Z	
Vibration resistance	10 to 55Hz double amplitude 1.5mm, 2 hours in each direction of X, Y, and Z	
Protection level	IP65	
Material	Casing: zinc casting (chrome plating), indicator cover: PC, button: stainless steel	
Weight	128g	

## Size



## Input / Output Wiring Diagram

