

Simple color recognition sensor

DK-GS-101 series

Product characteristics

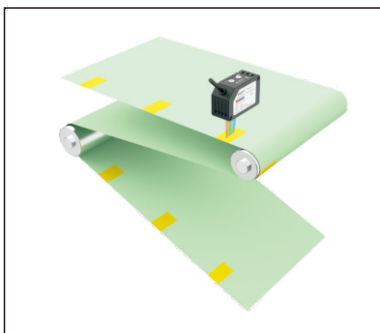


- The size is 1.5 * 7 linear light spot, which is suitable for detection in different application environments;
- The detection distance is 28mm, which is 2-3 times that of similar color code sensors;
- By adjusting the accuracy to eliminate the influence of jitter on the detected object, the anti jitter performance is high;
- It can accurately identify the edge of the object or the critical position of two different colors, and the detection is stable and reliable;
- With two detection modes of color and color code, the performance is greatly superior to the ordinary color code;
- Two point setting, simple and convenient, small volume, suitable for installation in different spaces.

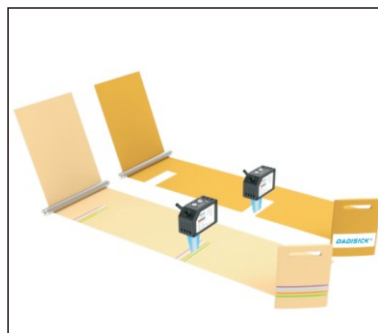
Seven advantages

- ▶ Built in RGB trichromatic light source
Color mode and color code mode
- ▶ The detection distance is long, and the detection range is 18-28mm
- ▶ The detection return difference is adjustable, which can eliminate the influence of jitter of the measured object
- ▶ Two point setting mode
- ▶ Small volume
- ▶ The light spot size is about 1.5 * 7mm (23mm detection distance)
- ▶ The unique dual-mode mode has the function of color + light intensity detection at the same time. It will not output errors when there is no background or object at the detection edge, and the detection is more stable and reliable

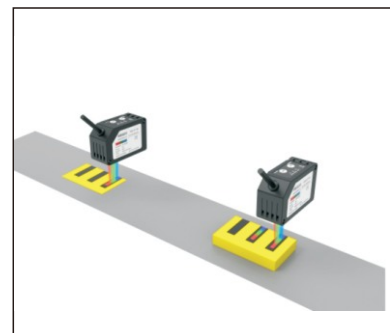
Application example



Check alignment marks



Detect folder labels



Detect the color block of the conveyor belt target

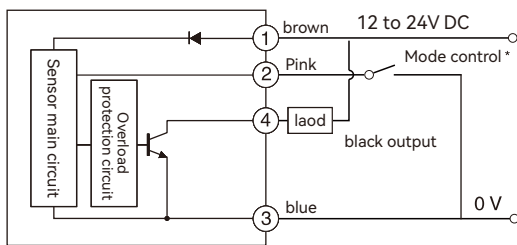
Product Specification

Type	NPN		PNP	
Model	DK-GS-101N		DK-GS-101P	
Detection distance	18 to 28mm			
Power supply voltage	24V DC ± 10% pulsation P-P below 10%			
Electricity consumption	The power is below 850mW (when the power supply voltage is 24V, the consumed current is below 35mA)			
Mode switching input	Color pattern	Low (ON) 0 to 0.6V DC Outflow current below 0.5mA The input impedance is about 10KΩ		Low (OFF) 0 to 0.6V DC or open
	Color mode	High (OFF) 12 to +24V DC or open		High (on) 12 to +24V DC Outflow current below 3mA The input impedance is about 10kΩ
Output	NPN open collector transistor · Maximum inflow current 50mA · Applied voltage below 30V DC (between output and 0V) · Residual voltage below 1.5 V (when inflow current is 50mA) *		PNP open collector transistor · Maximum outflow current 50mA · Applied voltage below 30V DC (between output and + V) · Residual voltage below 1.5 V (when outflow current is 50mA) *	
Output operation	Color pattern	ON when color code is detected		
	Color mode	Consistent ON		
Short circuit protection	Equipped (automatic recovery)			
Reaction time	Below 200μs			
Ambient temperature	-10 to + 55 °C, no freezing, no condensation			
Ambient humidity	35 to 85% RH, no coagulation			
Light projecting element	Composite LED: Red/Green/Blue (Projection peak wavelength: 640nm/525nm/470nm)			
Material	Shell: PBT/Operation Panel: PC/Operation Button: Silicone/Lens: PC			
Cable	0.2mm ² 4-core rubber cable, standard length 2m Brown: + V/Black: Output/Pink: Mode Transition Input/Blue:0V			
Weight	Approximately 104g			

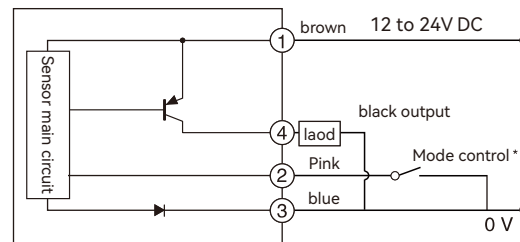
* Specified measurement conditions: ambient service temperature + 23 °C.

Input/output wiring diagram

NPN



PNP



Note: the color mode is when the pink line is off, and the color code mode is when the pink line is on

Dimension specification

DK-GS-101

