Mark sensor **SPM** series



Features

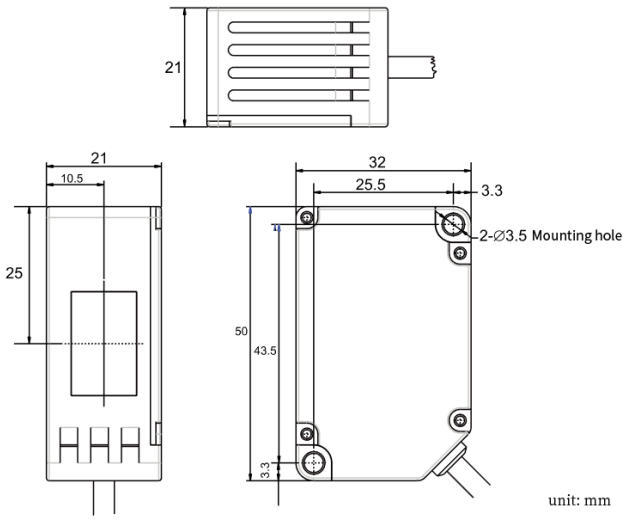
- Built-in RGB three-color light source color mode and color mark mode
- The detection distance is 3 times that of similar color mark sensors
- The detection return difference is adjustable, which can eliminate the influence of jitter of the measured object
- Light spot size is about 1.5*7mm (23mm detection distance)
- Two-point setting method
- Smaller size

Model specification			
NPN	SPM-TNR-RGB	PNP	SPM-TPR-RGB

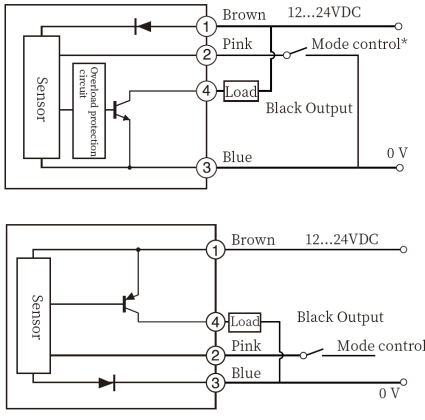
Specifications		
Detection distance	18...28mm	
Supply voltage	24VDC±10% Ripple P-P＜10%	
Light source	Composite LED:Red/Green/Blue(Light source wavelength: 640nm/525nm/470nm)	
Current consumption	Power＜850mW(Supply voltage is 24V、Consumption current＜35mA)	
Mode switch input	Color mark mode: Low(ON) 0...0.6VDC; Leakage current is below 0.5mA; Input impedance is about 10kΩ.	Color mark mode: Low(OFF) 0...0.6VDC or open
	Color mode: High(OFF) 12... +VDC or open	Color mode: High(ON) 12...+VDC; Leakage current is below 3mA; Input impedance is about 10kΩ.
Output type	NPN open-collector transistor:the max inflow current is 50mA;The applied voltage is below 30VDC(Between output and 0V);Residual voltage is less than 1.5V(When inflow current is 50mA)*	PNP open-collector transistor:the max inflow current is 50mA;The applied voltage is below 30VDC(Between output and +V);Residual voltage is less than 1.5V(When inflow current is 50mA)*
Output operation	Color mark mode: ON when color mark detection; Color mode: ON when consistent	
Protection circuit	Short circuit protection	
Response time	＜200μs	
Ambient temperature	-10...55℃(No condensing、 No condensation)	
Environment humidity	35...85%RH(No condensation)	
Housing material	Housing: PBT; Operation panel: PC; Operation button: Silica gel; Lens:PC	
Connection method	2m cable(0.2mm² 4-pins cable)	
Weight	About 104g	

*Specified measurement conditions: ambient temperature +23℃

Dimensions



Wiring diagram



Note: When the pink line is disconnected (OFF), it's color mode;
When the pink line is connected (ON), it's color mark mode.