

SC-PS

ToF
Distance Sensor



- Cost Reduction and Performance Improvement
- Object Sensing
- Predictive Maintenance
- Remote Monitoring and Intelligent Decision-making

PRODUCT INTRODUCTION



Basic Principle

Automate Matrix's SC-PS series adopts ToF laser distance measuring technology, enabling object presence detection at any position.



Technical Specifications

Up to 5m, with 50Hz refresh rate & 5mm accuracy.



Application Scenarios

Falling object detection; Anti-slip protection in pallet warehouses; Safe lifting-height measurement; Anti-collision protection for shuttle vehicles in small-parts warehouses; Idle operation monitoring for assembly machines; Chip stacking and presence detection; Control of roll material diameter; Logistics equipment; Food processing and packaging machinery; Molding machines.

SUITABLE MODELS

Product Model	Measurement Range(m)	Refresh Rate (Hz)	Repeatability (mm)	Output Type	Operating Temperature
SC-PS01	0.3m/2m/5m	50Hz	±5mm	PNP/NPN	-20°C to 65°C
SC-PS03	0.3m/2m/5m	50Hz	±5mm	RS485	-20°C to 65°C
SC-PS04	0.5m	50Hz	+10mm	PNP/NPN	-20°C to 65°C

TECHNICAL SPECIFICATIONS

Series	SC-PS01	SC-PS03	SC-PS04
Measuring Range	0.3m/2m/5m		0.5m
Repeat Accuracy	±5mm		+10mm
Light Source	940nm Infrared Laser		
Interference Resistance	Anti-strong Light Interference		
Refresh Rate	50Hz		
Spot Size	6cm/2m	15cm/5m	30mm/10cm 60mm/20cm
Protection Level	IP55/IP67		
Operating Temperature	-20°C to 65°C		
Storage Temperature	-40°C to 75°C		
ESD	±6KV		
Power Supply Voltage	12V - 24V DC		
Operating Current	8mA - 20mA		
Power Consumption	<1W		
Max Output Current	<100mA		
Output Type	PNP/NPN	RS485	PNP/NPN
Dimensions	19 x 14 x 10.4mm (L x W x H)		
Shell	PVC		
Cable Type	2.5x4P sheath, Lead-out Type/Connector Type	2.5x4P sheath, Lead-out Type	2.5x4P sheath, Lead-out Type/Connector Type
Cable Length	2m		