

Dear clients, Thanks for choosing **MYPIN**! Before installing and operating the sensors, please read this instruction manual carefully. For any questions, please contact our sales people immediately.

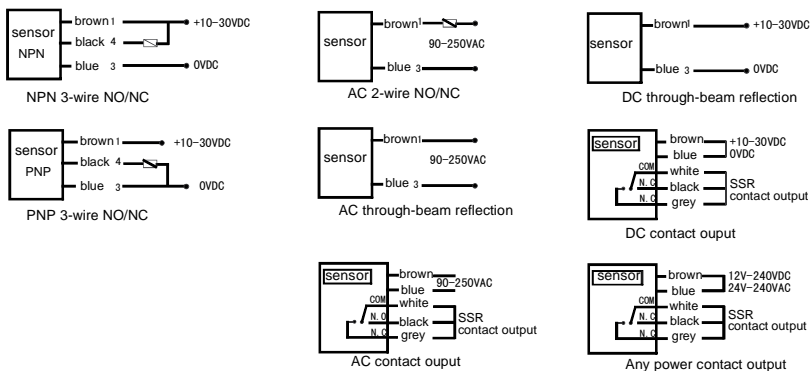
Features

- Infrared detection, LED indicate, stable performance, fast response, anti-shock and vibration, high anti-interference by other light resources, long operation life.
- 3 main classifications: through-beam, retro-reflective and diffused-reflective.
- Out appearance: cylinder(brass nickle plated or plastic) style and cuboid style(plastic).
- Distance adjustable by adjustor (except M12 cylinder type).
- Output: NPN or PNP, NO or NC, DC 2 wire or AC 2 wire output; wires version or plug-in connector version.
- IP ratings: IP67(65) : Polarity reverse protection.
- Detect any objects with different materials: detect objects by the light quantities reflected and received, detect objects such as glass, metal, plastic, wood, fluid...etc.
- Identify object colors: according to the colors' reflectivity and absorptivity, the sensors detect the light that the object reflected and identify the colors.
- Non-contact object detect: avoid the photoelectric sensor to contact the object directly, protect the inducing component from damage and extend the operation life of the sensor.
- Widely applied in measuring, Counting, Rpm measuring in mechanism, chemical, paper manufacture light industry, etc.

Code Illustration

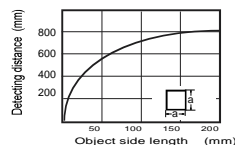
Code	Appearance	Output type	Detecting distance	Detecting type
SG	Photoelectric sensor			
	M Round	N NPN NO	1 50CM	A Direct reflective
	W Flat	NC NPN NC	2 150CM	B Anvil reflective
	S Square	P PNP NO	3 300CM	C Through-beam
	H Cylinder	PC PNP NC	4 500CM	
	O Channel	Y 2-wire AC NO	5 700CM	
		DJ DC SSR output	6 2M	
		YJ AC SSR output	7 4M	
		MJ Any SSR output	8 5M	

Connection

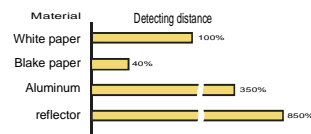


Technical instruction

a.Relation between detecting distance and object size (white paper)



b.Influence of different objects to detecting distance (only for Diffused-reflective type)



c.Type instructions

	TYPE	SPECIALITY
Through-beam		Detect when an object shutoff the light between the sender and the receiver <ul style="list-style-type: none"> • Detect long distance • Stable detecting status • Strong light beam • Detect different objects(transparent or non-transparent, different appearance/color/materials...etc.)
Retro-reflective		Detect when an object shutoff the light between the sender and the reflector <ul style="list-style-type: none"> • The reflector can be installed in the very limited space • The connection is easy • Can adjust the (light)axis easily • Detecting longer distance than diffused-reflective sensor • Detect different objects(transparent or non-transparent, different appearance/color/materials...etc.)
Diffused-reflective		The diffused-reflective sensor detect the object when the object reflect the light beam sent from the diffused-reflective sensor. <ul style="list-style-type: none"> • Save space (a sensor module needs to be installed only) • No need to adjust (light)axis • Can detect the reflect-light transparent object • Can detect different colors

d.Terms

	TERMS	DEFINITION
Different distance		The different distance of reflective photoelectric sensor is the difference between detecting distance and resetting distance.
Detect angle		The angle ranges for the photoelectric sensor detect objects.
Response time		The min. time that the sensor detect light beam exist and output "ON" signal or the min. time that the sensor detect no light beam and output "OFF" signal.
Ambient light		The max. ambient light for the sensor receiving face to work appropriately

e.Operation instruction

External interference	Solutions
	Use a block to shut out the light reflected from under the object. Re-adjust the installing height
	Heighten the installing position of inducing component. Re-adjust the installing height
	Adjust the installing height or change the angel of the inducing component.
	Use background objects with low reflectivity like black wall to prevent the sensor from detecting the light from background objects. Increase the distance. try to increase the distance between the target object and the background object.

f.Other notice

- When the high voltage cable, power cable and photoelectric sensor cable are placed in one tube, they might affect one another and cause misworking, therefore they must use different wire tube so as to avoid mistworking.
- Power supply must be within the specified range.
- Pay attention installation in the following conditions may cause misworking:
 - Dust and corrosive gas environment
 - Water, oil and medicament spurt environment
 - Strong sunlight irradiate environment, high ambient temperature conditions
 - Vibrate and shock environment
- Do not hammer the sensor when installing, otherwise can damage water-proof parts.