Before installing and operating the products, please read this instruction manual carefully. For any questions, please contact our sales people immediately.

Infrared photoelectric switch (photoelectric sensor) is also called photoelectric proximity switch, which is used to detect objects on shading or reflection infrared beam from the strobe synchronization circuit and the detection of objects are not limited to metal, all objects that reflect light can be detected.

The largest sensing distance up to 10 meters. It is used to drive relay, AC contactor, or logic gates. It is widely applied in process control and monitoring systems. It can be use as a limit, location detection, automatic counting, speed detection, automatic protection of industrial production lines and computer signals, digital device applications

1. Ordering Code

IM - □□□□-

5：0～5cm、10：0～10cm、30：0～30cm、50:0～50cm				
Detective Mode	A	Through beam reflection type		
	B	Retro-reflection type		
	C	Diffuse reflection type		
Output Mode	N：NPN NO　P：PNP NO　N2：NPN NC　P2：PNP NC DJ：DC. contact output　Y:Two-Wire AC. (NO)　Y2:Two-Wire AC.(NC) YJ：AC. contact output　MJ: Arbitrary power supply contact output			
Appearance (mm)	M12	column type	Φ12×55mm	power supply 10～30VDC
	M18		Φ18×60mm	power supply 10～30VDC
	W50	flat type	50×50×18mm	power supply 12～24VDC/AC
	W75		75×65×25mm	power supply 12～24VDC/AC
	S20	rectangular type	20×20×63mm	power supply 10～30VDC
	S22		22×15×45mm	power supply 10～30VDC
	H76	cylindrical type	76×72×52mm	power supply 90～250VAC
	H70		75×61×27mm	power supply 12～240DC/AC
	H45		45×15×22mm	power supply 10～30VDC
	H30		30×25×12mm	power supply 10～30VDC
	U30	trough-beam type	72×52×20mm	(trough-beam width 30mm) Voltage:10～30VDC
	U7		55×25×16mm	(trough-beam width 7mm) Voltage:10～30VDC
IM: means range can be adjusted within the rated range				

Example: IM-H76NC10, means that IM series cylindrical diffuse reflection type photoelectric sensor, cylindrical type, size 72 x 72 x 52mm, power supply 90 - 250V AC. Output NPN normal open. Sensing distance: 0 -10cm.

2. Max. Detection range and Output mode

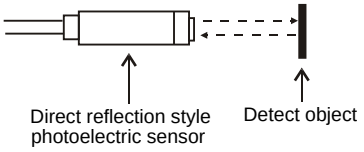
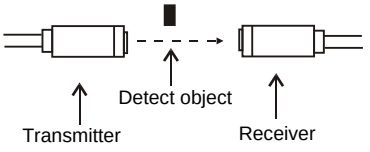
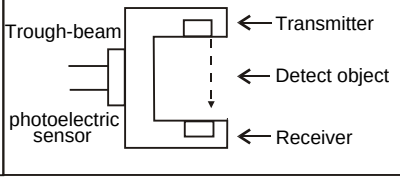
Model	Optional output mode	Detectiong mode & range		
		Direct reflection type A	Retro-reflection type B	Diffused type C
IM－M12□	N、NC、P、PC	5cm	None	2m
IM－M18□	N、NC、P、PC、Y、YC	30cm	2m	5m
IM－W50□	N、NC、P、PC、MJ、YJ、DJ	50cm	4m	5m
IM－W75□		70cm		10m
IM－S20□	N、NC、P、PC	50cm		5m
IM－S22□		30cm	2m	3m
IM－H30□	N、NC、P、PC	15cm	2m	3m
IM－H45□		30cm		
IM－H75□	MJ、YJ、DJ	70cm	5m	10m
IM－H76□	YJ	50cm	4m	5m

www.imprimsistem.com
IMPRIMSISTEM S.R.L. 2071 Republica Moldova or.Chisinau str.Alba Iulie 75 bl.N
tel (+373 22) 759751 fax (+373 22) 758682 email: lev@meganet.md

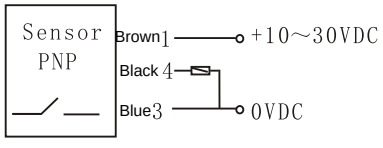
3. Technical Parameters

Detect mode	Infrared LED
Standard inspection	White non-reflective paper
Voltage	10～30VDC 90～250VAC 12～240VAC/DC
Current consumption	＜30mA
Load current	200mA Max
Residual voltage	1V Max This only applied to N, P type
Indicator lamp	RED LED
Protection Degree	IEC IP65
Ambient temperature	-25℃～70℃ (Note: Can not be fogged or be freeze.) Storage temperature: 30℃～80℃
Ambient humidity	35～85%RH
Ambient light	Incandescence lamp: ≤ 300Lux Sun light: ≤ 100Lux
Cable length(standard)	Length: 2M
Housing material	ABS plastic

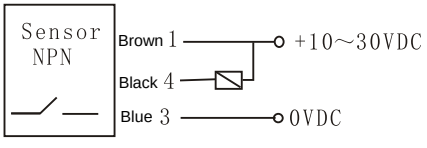
4. Operation Principle

Style	working principle	
Direct reflection style	Direct reflection Photoelectric switch is a senor used as a transmitter and is used as a receiver as well. When the detected object passing, the photoelectric switch launches sufficient light to reflect to the receiver, then the switch signal is generated. When the surface of detected object is bright or the reflective rate is pretty high, direct reflection type photoelectric sensor is the preferred detection mode.	
Diffused style	Diffused type photoelectric switch is separated with each other on the structure and the optical axis relative placement of transmitter and receiver, the light launched by the transmitter enter into the receiver directly. When the object to be detected passing between the transmitter and receiver, and block the light, the switch signal is generated. When the object to be detected is opaque, diffused photoelectric sensor is the preferred detection mode.	
Trough-beam style	Usually trough-beam photoelectric switch is on the structure of a standard U-shaped, the transmitter and receiver are located on both sides of U-groove and form an optical axis. When the object to be detected passing through the U-groove and block the optical axis, the sensor produce the detected signal. Trough-beam photoelectric Switch is safe and reliable relatively , and suitable for testing high-speed change, to distinguish transparent and opaque objects.	

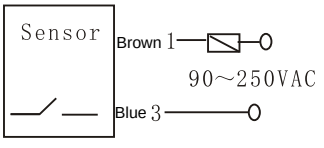
5. Connection Drawing



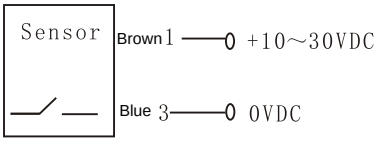
Drawing 1: PNP Three-Wire NO/ NC



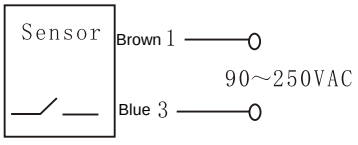
Drawing 2: NPN Three-Wire NO/ NC



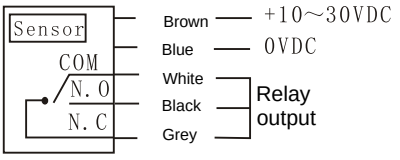
Drawing 3: AC Two-Wire NO/ NC



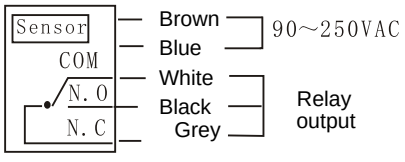
Drawing 4: DC Diffused type reflection



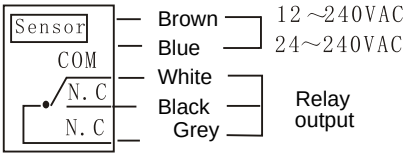
Drawing 5: AC Diffused type reflection



Drawing 6: DC power supply contact output



Drawing 7: AC power supply contact output



Drawing 8: Arbitrary power supply contact output