

CAPACITIVE PROXIMITY SENSOR



INSTRUCTION SHEET

Thank you for selecting INNO for your requirement.

This sheet describes the procedure and precautions required for installing and operating the product.

Kindly read this sheet before operating or installing the product. Store the sheet for future reference.

CAUTION FOR SAFETY

ⓘ Please keep this sheet for review before use of unit.

ⓘ Please observe the following:

⚠ WARNING
Serious injury may occur if instructions are not followed

⚠ CAUTION
Product failure or injury can occur if instructions are not followed

⚠ WARNING

1. This is not a safety product and is not to be used with machinery that requires use of safety control.
2. Do not disassemble or modify this unit. It may lead to electric shock/ fire.

⚠ CAUTION

1. This unit shall not be used outdoors.
2. Do not use this unit in places where there is flammable or explosive gas.
3. Do not use in high humidity areas.
4. Please observe the rated specifications in Instruction Sheet.
5. Do not use this unit beyond rated power and do not supply AC power at DC power type.
6. Please check the polarity of power and wrong wiring.
7. Do not use this unit in places where there is vibration or impact.
8. Do not use water or oil based detergent for cleaning the unit.
9. Do not use excessive force to tighten the unit to the mounting plate and do not hammer the unit.
10. Do not use unit without proper grounding in areas with high static discharge.
11. Please process it as industrial waste and dispose responsibly.

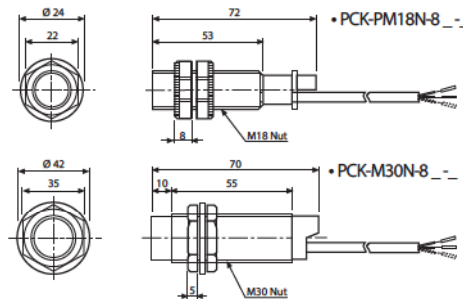
For more information visit www.inno.sg

SPECIFICATIONS

*For details on Customized/ Special Models contact Seller

Size	M18		M30		
Connection	2 meter cable	M12 Jn. Connector with 0.3 meter cable	2 meter cable	M12 Jn. Connector with 0.3 meter cable	
*Model	NPN - NO	PCK-PM18N-8NO-2M	PCK-PM18N-8NO-M12J3	PCK-M30N-15NO-2M	PCK-M30N-15NO-M12J3
	PNP - NO	PCK-PM18N-8PO-2M	PCK-PM18N-8PO-M12J3	PCK-M30N-15PO-2M	PCK-M30N-15PO-M12J3
	AC 2 wire - NO	PCK-PM18N-8AO-2M	PCK-PM18N-8AO-M12J3	PCK-M30N-15AO-2M	PCK-M30N-15AO-M12J3
	AC 2 wire - NC	PCK-PM18N-8AC-2M	PCK-PM18N-8AC-M12J3	PCK-M30N-15AC-2M	PCK-M30N-15AC-M12J3
	NPN - NC	PCK-PM18N-8NC-2M	PCK-PM18N-8NC-M12J3	PCK-M30N-15NC-2M	PCK-M30N-15NC-M12J3
Sensing Distance	8 mm		15 mm		
Response Frequency	20Hz(AC) ; 50Hz(DC)				
Standard Sensing Target	Ø100 x 5 mm iron piece				
Setting Distance	0 ~ 6 mm		0 ~ 10 mm		
Hysteresis	max. 20%				
Sensitivity Adjustment	Built-in externally adjustable endless pot.				
Supply Voltage	12 - 24 VDC (Ripple Max 10%) or 100 - 240 VAC (± 10%) depending on Model				
Current Consumption	DC 3 wire: Max. 15 mA; AC 2 wire: -				
Leakage Current	DC 3 wire: - ; AC 2 wire: Max. 2.2 mA				
Control Output	DC 3 wire: Max. 200 mA; AC 2 wire: Max. 5 ~ 200 mA				
Output Residual Voltage	DC 3 wire: Max. 1.5 V; AC 2 wire: Max. 20 V				
Operation Indication	Red LED				
Output Type	NPN/ PNP (NO / NC) in DC 3 Wire or NO/ NC in AC 2 wire depending on Model				
Protection Circuits	DC 3 wire: Surge, Reverse Polarity Protection; AC 2 wire: Overload, Short circuit Protection				
Shock Resistance	50 G in X, Y, Z direction for 3 times				
Ambient Temperature	Operation: -25° ~ 70° C; Storage: -30° ~ 80° C (non-freezing; non-condensing)				
Ambient Humidity	Operation: 40 ~ 85% RH; Storage: 35 ~ 95% RH (non-condensing)				
Protection Class	IP66		IP65		
Weight	DC 3 wire: Aprox. 70g; AC 2 wire: Aprox. 65g		DC 3 wire: Aprox. 210g; AC 2 wire: Aprox. 220g		
Material	Polyamide Nylon 6 (PM6)		Nickel Plated Brass; Sensing Head: ABS		

DIMENSIONS



MOUNTING AND ADJUSTMENTS

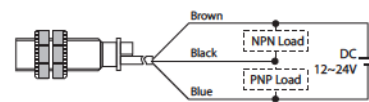
• Grounding

The sensing distance of the capacitive proximity sensor is reduced if the grounding is not proper/ missing.

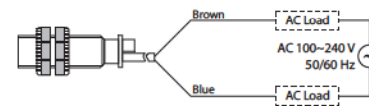
	PCK-PM18N-8□-□		PCK-M30N-15□-□			
Sensor Ground	-	-	ON	OFF	ON	OFF
Object Ground	ON	OFF	ON	ON	OFF	OFF
Sensing Distance	8mm	4mm	15mm	18mm	6mm	6mm

CONNECTION DIAGRAM

• DC 3 wire - NPN & PNP Types

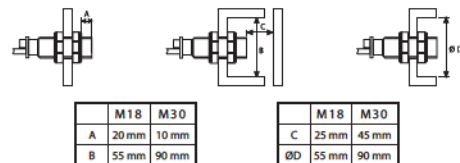


• AC 2 wire - NO & NC Types

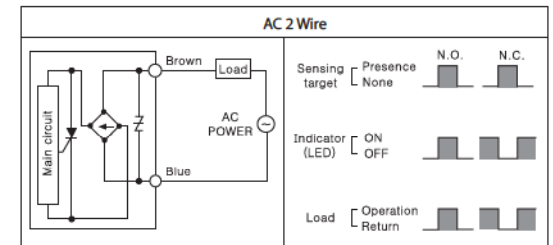
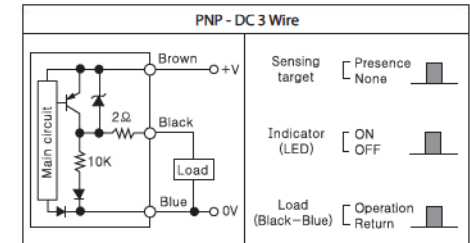
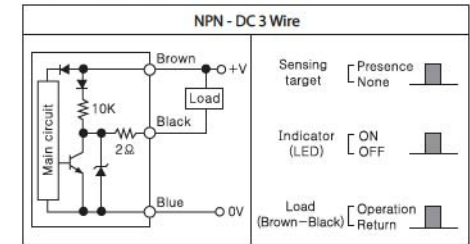


• Mounting

The following mounting conditions are to be followed to ensure that the mounting plate does not lead to false detection.



CONTROL OUTPUT DIAGRAM



MOUNTING AND ADJUSTMENTS

• Sensitivity Adjustment

1. When no sensing object is placed, turn the pot. to the right and stop when the proximity sensor is in ON State (OFF for NC models).
It is stable when it is over 1.5 times.
2. Place an object in the sensing position, turn the pot. to the left and stop when the proximity sensor is in OFF State (ON for NC models).
3. Place the potentiometer in the center position between 1 & 2 and the adjustment is complete.

• Crosstalk Prevention

When several proximity sensors are placed close to each other, they may interfere with the functioning of each other. To prevent this a minimum distance is to be maintained.

	M18	M30
Opposite Placement	50 mm	90 mm
Parallel Placement	60 mm	100 mm

Represented by:

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