

PHOTOELECTRIC SENSORS



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
Do not connect sensor to AC power supply.
RISK OF EXPLOSION!

⚠ CAUTION

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

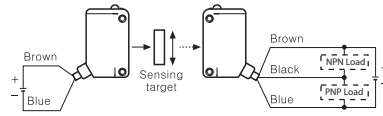
SPECIFICATIONS

*For details on Customized/ Special Models contact Seller

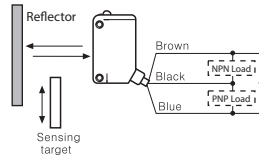
Sensing Type	Through Beam				Retro Reflective		Diffuse Reflective						
	NPN	FK-T-15MN-2M	FK-T-15MN-M8C	FK-T-10MN-2M	FK-T-10MN-M8C	FK-R-3MN-2M	FK-R-3MN-M8C	FK-D-1MN-2M	FK-D-1MN-M8C	FK-D-300N-2M	FK-D-300N-M8C	FK-D-100N-2M	FK-D-100N-M8C
*Type	PNP	FK-T-15MP-2M	FK-T-15MP-M8C	FK-T-10MP-2M	FK-T-10MP-M8C	FK-R-3MP-2M	FK-R-3MP-M8C	FK-D-1MP-2M	FK-D-1MP-M8C	FK-D-300P-2M	FK-D-300P-M8C	FK-D-100P-2M	FK-D-100P-M8C
Sensing Distance	15000mm		10000mm		3000mm		1000mm		300mm		100mm		
Test Object					with reflector MS-2A		Translucent/ Opaque Materials						
Light Source	Infrared LED			Red LED		Red LED		Infrared LED		Red LED		Infrared LED	
Light Wavelength	850nm			660nm		660nm		850nm		660nm		850nm	
Supply Voltage	12 - 24 VDC; ± 10% (Ripple Max 10%)												
Current Consumption	Transmitter: max. 20mA Receiver: max. 20mA					max. 30mA							
Control Output	Load Voltage: max. 26.4 VDC; Load Current: max 100mA; Residual Voltage: NPN- max 1 V, PNP- min (-2.5 V)												
Response Time	Max. 1ms												
Ambient Temperature	Operation: -25° ~ 55°C; Storage: -35° ~ 60°C (at non- freezing and non- condensing conditions)												
Ambient Humidity	Operation: 30 ~ 80% RH; Storage: 30 ~ 85% RH (non- condensing conditions)												
Protection Class	Cable type: IP65 & Connector Type: IP 67 (IEC Standards)												
Unit Weight	90g	20g	90g	20g	60g	30g	45g	15g	45g	15g	45g	15g	15g

CONNECTION DIAGRAM

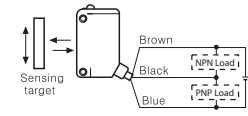
• Through Beam



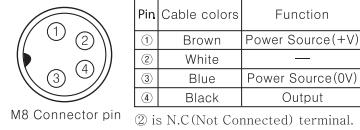
• Retro-reflective



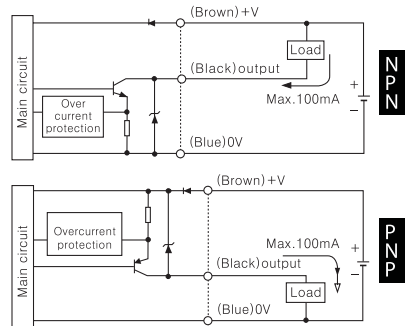
• Diffusive



• Connector

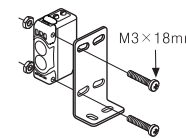


OUTPUT CIRCUIT DIAGRAM



MOUNTING AND ADJUSTMENTS

For mounting please use the M3 Screw, set the tightening torque to 0.5Nm.



• Light ON/ Dark ON Switching



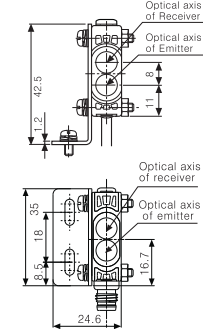
• Sensitivity Adjustment

Sensitivity adjuster	Description
(A) MIN MAX	Turn the sensitivity adjuster to the right from min. sensitivity position and check(A) where the indicator is turned on in "Light ON status".
(A) MIN MAX (B) (C)	Turn the sensitivity adjuster more to the right from min. sensitivity position, check(B) where the indicator is turned on and turn the adjuster to the left, check(C) where the indicator is turned off in "Dark ON status". *If the indicator is not lighted although the adjuster is turned to the max. position, the max. position is(C).
(A) MIN MAX (C)	Set the adjuster at the center of (A) and (C). Also setting of the optimum sensitivity, check the operation is correct and lighting of stable indicator with sensing target or without it. If the indicator is not lighted, please check the sensing method again because sensitivity is unstable.

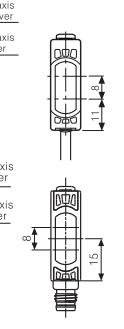
DIMENSIONS

unit: mm

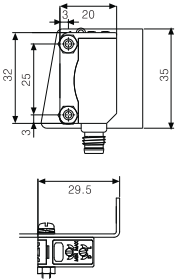
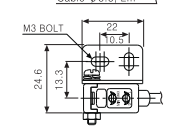
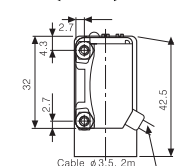
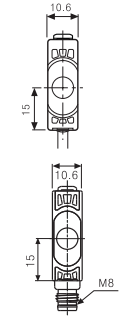
• Diffusive



• Retro-reflective



• Through Beam



Represented by:

Intech Systems Chennai Pvt. Ltd.
S-2, Guindy Industrial Estate
Chennai - 32. Ph: 044 4353 8888
Email: info@intechchennai.com