

Cat. No. FX-317

FX

## **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**

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

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
- 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 responsibily.

#### **SPECIFICATIONS**

\*For details on Customized/ Special Models contact Seller

Sensing Type			Through Beam	Retro-Reflective	Diffuse Reflective	Background Suppression
Туре	NPN	Cable	FX-T-25MN	FX-R-4MN	FX-D-1MN	FX-BGS-90N-2M
		Connector	FX-T-25MN	FX-R-4MN	FX-D-1MN	FX-BGS-90N
	PNP	Cable	FX-T-25MP	FX-R-4MP	FX-D-1MP	FX-BGS-90P
		Connector	FX-T-25MP	FX-R-4MP	FX-D-1MP	FX-BGS-90P
Sensing Distance			25 Meters	4 Meters	1 Meters	10-90mm
Light Source			Red LED			
Spot Size			Ø 1800mm/ 25 m	Ø 280mm/4 m	Ø 75mm/ 1200mm	Ø 8mm/ 90mm
Response Time		500 μs				
Sensitivity Adjustment			Built-in externally adjustable 1 turn pot.			
Operation Mode			Light ON / Dark ON Selectable			
Supply Voltage			10 - 30 VDC (Ripple Max 10%)			
Current Consumption			Emitter: max. 20mA; Receiver max. 15MA	Max. 20 mA	Max. 25 mA	Max. 20 mA
Control Output			NPN or PNP open collector output			
Control Output Rating			Load Voltage: max. 30 VDC; Load Current: max 100mA			
Operation Indication			GREEN: Stable; Orange: Output ON			
Shock Resistance			100 G- X,Y, Z three directions			
Environmental Illuminance			Sunlight: 10,000 lux, Lamp: 3,000 lux			
Ambient Te	mperature		-25°∼55°C(no freezing)			
Ambient Humidity			35~85% RH(non- condensing)			
Protection Class			IP67			
Weight			approx. 10g without cable			
Material			Housing: ABS with Glass, Lens: PMMA or Eqv.			
Connection			2 meter Pre-Wired cable or 0.3 meter cable with M8,M12 Junction connector depending on the model			

#### Connector



1	Pin	Cable colors	Function
	1	Brown	Power Source(+V)
. ))	2	White	_
//	3	Blue	Power Source(0V)
	4	Black	Output
min.			

(Brown)+V

(Blue)0V

(Brown)+V

(Black)output

(Blue)0V

■ OUTPUT CIRCUIT DIAGRAM

protection

M8 Connector pin ② is N.C(Not Connected) terminal.

Load

Max.100mA

Max.100mA

Load

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

MOUNTING AND ADJUSTMENTS

• Light ON/ Dark ON Switching



LIGHT ON MODE Turn the screw right towards L



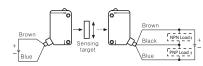
DARK ON MODE Turn the screw left towards D

#### · Sensitivity Adjustment

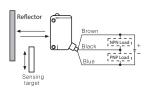
Sensitivity adjuster	Description
(A) MIN MAX	Turn the sensitivity adjuster to the right from min. sensitivity position and check(A) where the indicator is turned on in "Light ON status".
(A) (C) (B)	Turn the sensitivity adjuster more to the right from min. sensitivity position, check(B) where the indicator 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) (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.

#### ■ CONNECTION DIAGRAM

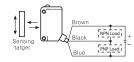
• Through Beam



· Retro- reflective



• Diffusive / Background Supression

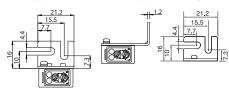


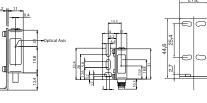
#### DIMENSIONS

unit: mm

Cable Type

 Connector Type Mounting Bracket







#### Represented by:

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