

Flat Mount Photoelectric Sensor

Long Distance Diffuse

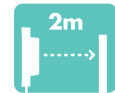
FKF



CE

SALIENT FEATURES

- ◆ Compact Housing
- ◆ 2 Color LED Indication
- ◆ Sensitivity Adjustment Pot.
- ◆ Long Distance in Diffuse - 2 Meter



Model Number Legend

FKF - - -
 1 2 3 4 5

1. Series

FKF

2. Type

DL: Diffuse Reflective - Light ON

DD: Diffuse Reflective - Dark ON

3. Sensing Distance

2M: 2 Meter

4. Output

NO: NPN - NO

PO: PNP - NO

5. Connection

2M: 2m Cable

M12J3: M12 Junction Connector with 0.3m extension

Example:

FKF-DL-2MPO-2M

FKF Series - Diffuse Reflective Type - 2 Meter Sensing Distance, Light ON, PNP NO - 2m Cable

NOTE: Contact us for models not shown in catalogue.
 Connector cables are sold separately; look in CC series catalogue for the same (www.inno.sg/cc).

Product Highlights



◆ Long Distance in LED Diffuse

The sensor realises long distance sensing in diffuse reflective. The specially tuned receiver makes it suitable for use in sensing applications as far as 2 meters.

Ratings and Specifications

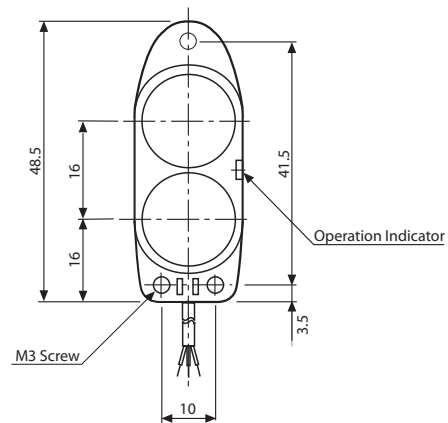
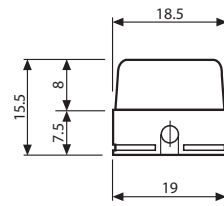
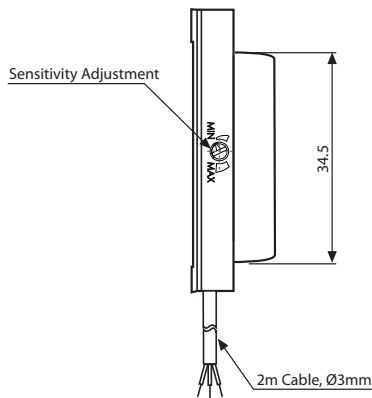
Sensing Type		Diffuse Reflective			
Type	NPN	FKF-DL-2MNO-2M	FKF-DL-2MNO-M12J3	FKF-DD-2MNO-2M	FKF-DD-2MNO-M12J3
	PNP	FKF-DL-2MPO-2M	FKF-DL-2MPO-M12J3	FKF-DD-2MPO-2M	FKF-DD-2MPO-M12J3
Sensing Distance		2 meters*			
Hysteresis		max. 20%			
Response Time		1 ms			
Light Source		Infrared LED			
Light Wavelength		850 nm			
Sensitivity Adjustment		Built-in externally adjustable pot.			
Operation Mode		Light ON		Dark ON	
Supply Voltage		12 - 24 VDC (Ripple Max 10%)			
Current Consumption		max. 30mA			
Protection Circuits		Reverse Polarity, Output Short Circuit Protection			
Connection		Prewired 2 meter cable outgoing type	M12 Jn. Connector, 0.3m extension	Prewired 2 meter cable outgoing type	M12 Jn. Connector, 0.3m extension
Control Output		NPN or PNP open collector output (depending on model)			
Control Output Rating		Load Voltage: max. 26 VDC; Load Current: max 100mA			
Operation Indication		RED: Operation; ORANGE: Light ON; GREEN: Dark ON			
Shock Resistance		10 G- X,Y, Z three directions			
Environmental Illuminance		Sunlight: 11,000 lux, Lamp: 3,000 lux			
Ambient Temperature		Operation: -20° ~ 55°C; Storage: -25° ~ 70°C (non- freezing; non- condensing)			
Ambient Humidity		Operation: 35 ~ 80% RH; Storage: 35 ~ 85% RH (non- condensing)			
Protection Class		IP64			
Weight		approx. 50g			
Material		Housing: ABS, Lens: Acrylic			

Note: * - Sensing distance under standard testing conditions with standard test object (200*200mm glossy white paper 90% reflectivity)

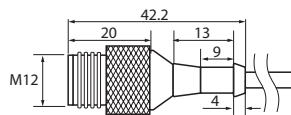
Sensor Dimension Drawing

FKF

- ◆ FKF-DL-2MNO-2M
- ◆ FKF-DL-2MPO-2M
- ◆ FKF-DD-2MNO-2M
- ◆ FKF-DD-2MPO-2M
- ◆ FKF-DL-2MNO-M12J3
- ◆ FKF-DL-2MPO-M12J3
- ◆ FKF-DD-2MNO-M12J3
- ◆ FKF-DD-2MPO-M12J3



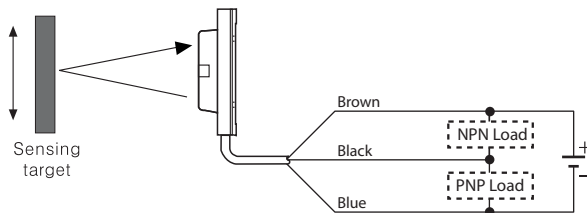
M12 Junction Connector



All dimensions are in mm

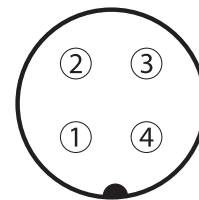
Connection

• Cable



- Brown : DC 10~30V
- Blue : GND
- Black : Control Output

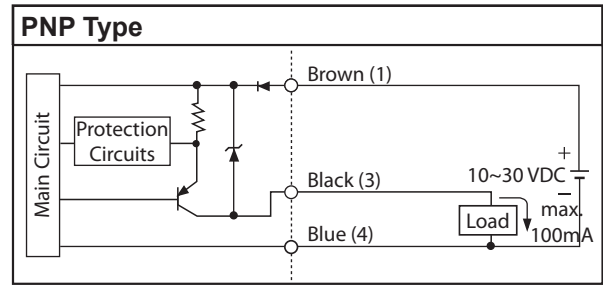
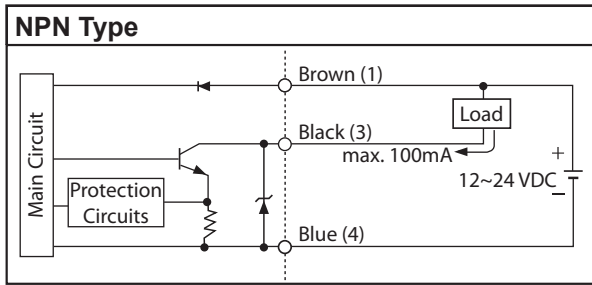
• M12 Junction Connector *



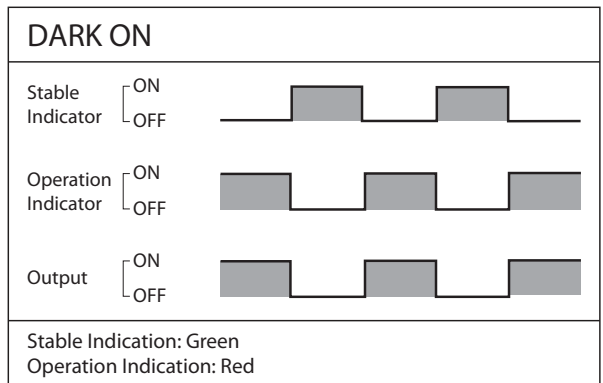
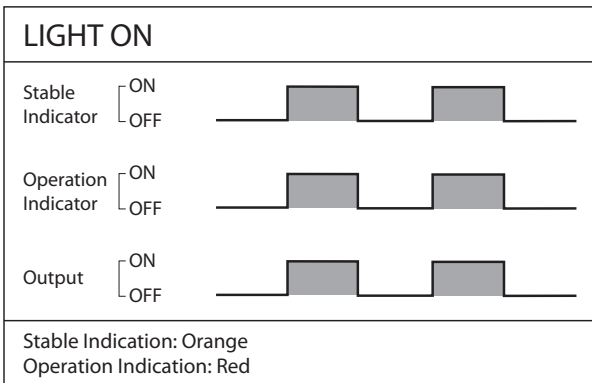
- 1 : DC 10~30V
- 2 : - (No Connection)
- 3 : Control Output
- 4 : 0V

* - Connector cable is not supplied along with unit

Control Output Diagram

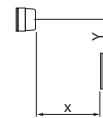
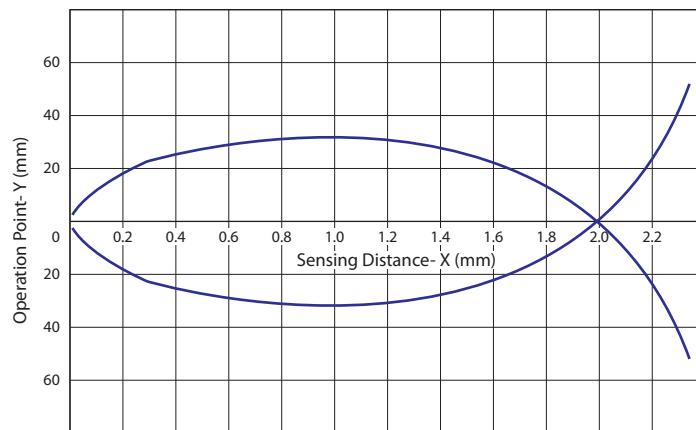


Operation Type

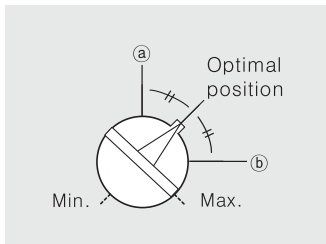


Operational Data

Parallel Shifting Characteristic



Sensitivity Adjustment



The sensitivity adjuster is to be set in such a way that the Stable Indication is 'ON' when the object is sensed. The stable indication color is defined in the 'Operation Type'.

The position 'a' is the minimum sensitivity position.
 The position 'b' is the maximum sensitivity position.
 Rotate the adjuster between minimum and maximum to achieve the desired sensitivity for Stable Detection Indication.

- Proximity Sensors
- Photoelectric Sensors
- Measurement Sensors
- Vision & Safety Sensors

- Control
- Weighing
- Automation

- Components

Cat. No. FKF-412

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