



Cat. No. FMF-B12

FMF MINIATURE FLAT PHOTOELECTRIC 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

- ① Please keep this sheet for review before use of unit.
- ① 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

- This is not a safety product and is not to be used with machinery that requires use of safety control.
- 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

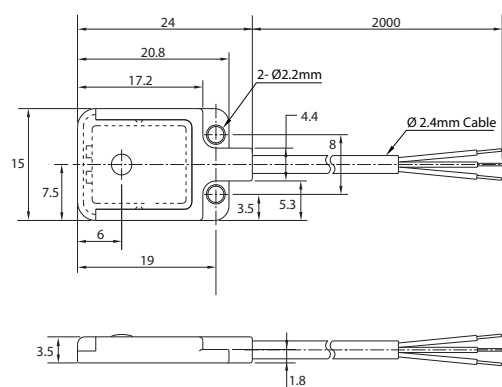
- This unit shall not be used outdoors.
- Do not use the unit in places where there is flammable or explosive gas.
- Please observe the rated specifications in Instruction Sheet.
- Do not use this unit beyond rated power and do not supply AC power at DC power type; do not connect without load.
- Please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

■ SPECIFICATIONS

*For details on Customized/ Special Models contact Seller

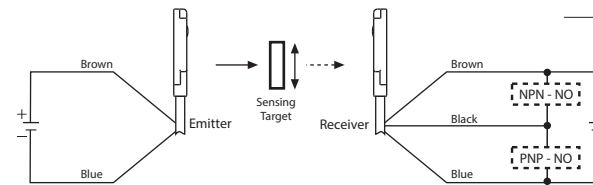
Sensing Type	Through Beam		Diffuse Reflective	
	NPN	PNP	NPN	PNP
Output Type	NPN	PNP	NPN	PNP
*Models	FMF-T-1MNO-2M	FMF-T-1MPO-2M	FMF-D-30NO-2M	FMF-D-30PO-2M
Sensing Distance	1 Meter		30 mm	
Sensing Area	Opaque min. 5mm dia.		100 x 100mm (white) at 50mm	
Light Source	Red LED (602nm)			
Response Time	max. 0.5ms			
Operation Mode	Dark ON		Light ON	
Supply Voltage	12 - 24 VDC (Ripple Max 10%)			
Current Consumption	max. 20mA		max. 15mA	
Protection Circuits	Reverse polarity protection; Output short circuit protection			
Control Output	NO - NPN or PNP open collector output (depending on model)			
Control Output Rating	max 100mA at 24VDC			
Operation Indication	Power: Green; Output: Red LEDs			
Shock Resistance	20 G - X,Y, Z three directions			
Vibration Resistance	1.5mm amplitude 10-1000Hz for 1 hour in X, Y, Z directions			
Dielectric Strength	1000VAC at 50/60 Hz for 60 Sec.			
Insulation Resistance	min. 20MΩ at 500VDC			
Environmental Illuminance	Sunlight: 10,000 lux, Lamp: 5,000 lux			
Ambient Temperature	Operation: -15° ~ 45°C; Storage: -10° ~ 55°C (non- freezing; non- condensing)			
Ambient Humidity	Operation: 35 ~ 85% RH; Storage: 35 ~ 95% RH (non- condensing)			
Protection Class	IP64			
Weight	aprox. 40g		aprox. 20g	
Material	Housing: ABS, Lens: Acrylic			

■ DIMENSIONS

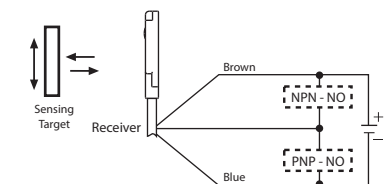


■ CONNECTION DIAGRAM

◆ Through Beam



◆ Diffuse Reflective



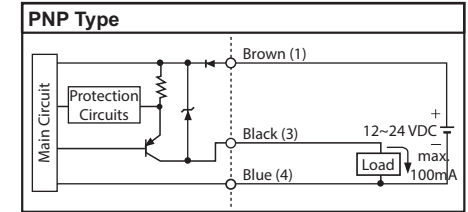
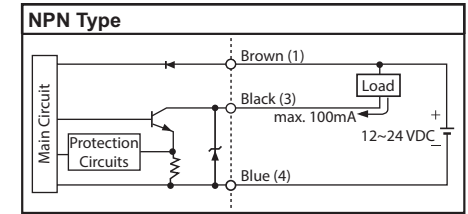
Represented by:

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



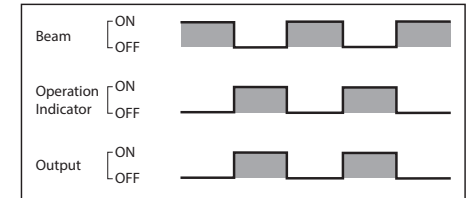
© Rights Reserved

■ OUTPUT CIRCUIT DIAGRAM

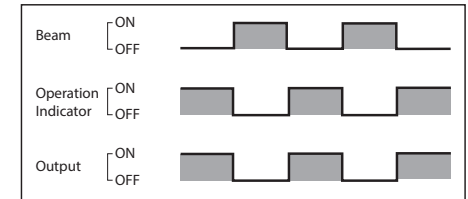


■ OPERATION TYPE

◆ Through Beam



◆ Diffuse Reflective



Brown : DC 12~24V
Black : Control Output
Blue : 0V