

Thank you for using **TAKEX** products.
 Please read this manual carefully prior to use.

MODEL DESCRIPTION



MODEL	NPN type	F 5 N ※	F 5 R N	F 5 G N ※
	PNP type	F 5 N - PNP	F 5 R N - PNP	F 5 G N - PNP ※
Light source		Infrared LED	Red LED	Green LED
Power supply		12V to 24VDC ±10%, Ripple 10% (max)		
Current consumption		NPN output : 30mA (max) PNP output : 35mA (max)		
Operating mode		Light-ON, Dark-ON selectable		
Output mode	NPN type	Open collector NPN output Sink current 100mA 30VDC (max) Short circuit protection built-in		
	PNP type	Open collector PNP output Source current 100mA 30VDC (max)		
Hysteresis		10% (max)		
Response time		100 μs (max)		200 μs (max)
Foreign light		3,000 lx (max)		
Indicator		Signal light : Red LED, Tolerance light : Green LED		
Sensitivity adjust		4 turns adjustment		
Temperature range		-25°C to +55°C		
Humidity range		35~85%RH (max)		
Enclosure		I P 40		
Vibration		10Hz to 55Hz, double amplitude 1.5mm, 3 directions 2 hours each		
Insulation resistance		20MΩ min (at 250VDC megger)		
Case material		ABS resin		
Wiring		2m Flying lead 0.2mm ² × 4C (φ 4)		
Weight		80 g (max)		

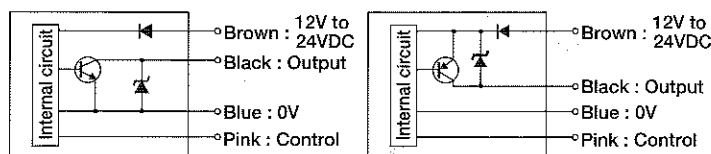
※ Discontinued as of Jan. 2013.

OUTPUT CIRCUIT

Loaded short circuit or overload shuts off, the output transistor is off.
 Turn the power back on after checking the loaded condition.

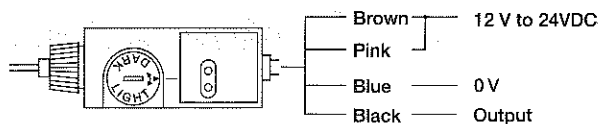
(NPN Output type)

(PNP Output type)

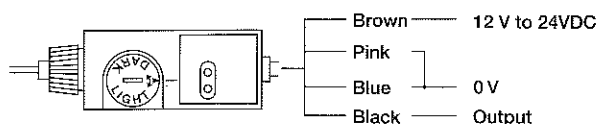


WIRING DIAGRAM

Light-ON : Connect the Green cord to the Red cord.



Dark-ON : Connect the Green cord to the Black cord.

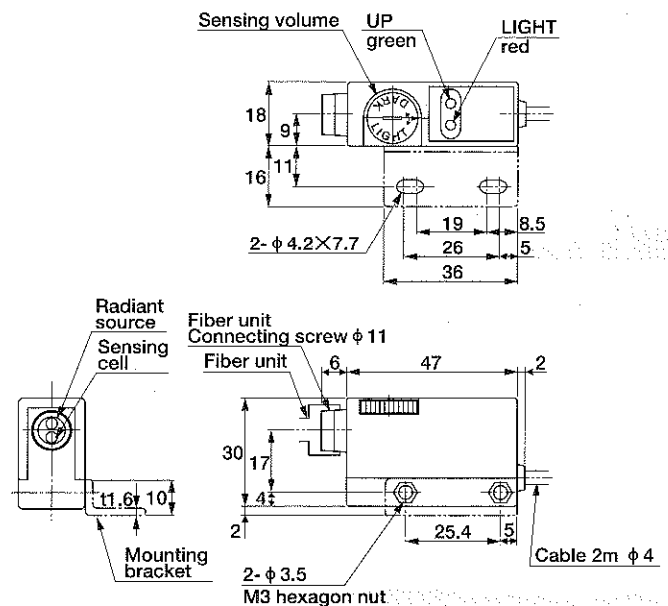


Don't hold the Green (Pink) cord in its open position.

NOTES

- In cleaning the lens and the case, be sure to use a dry cloth and gently wipe off dusts from them. Do not use thinner or alcohol.
- Avoid such a usage as continuously switching on and off the power source.
- When a commercial available switching regulator is used, ground the frame ground FG.
- Use power supply which is limited the current (2A) in accordance with the lead wire size of the sensor.
- Available cable diameter is 0.3mm² (min.) for extension.
- Use an insulated transformer. Don't use auto-transformer.
- Avoid the installation of sensor near by high frequency equipment such as a fluorescent light or inverter.

DIMENSIONS (unit : mm)



Tightening torque must not exceed 0.6N·m.

- This sensor is designed to detect a specific object. It is not provided with control functions for prevention of injuries or accidents in itself.
- Takex will not hold responsible for any damage or loss incurred due to accidents, faulty installation, abuse, misuse, improper maintenance or acts of God including lightning surge.
- Specifications and dimensions may be subject to change without notice.