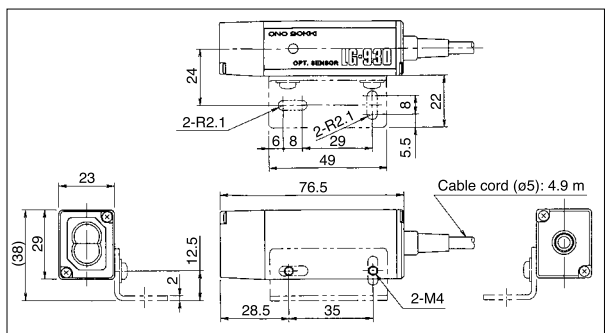


## Photoelectric Rotation Detector LG-930

### Compact model designed for the long-distance detection of visible light

The LG-930 model is a compact reflective-type photoelectric rotation detector that can be positioned up to 200 mm away from the target object.



#### ● Features

- Can be positioned at a distance of up to 200 mm away from the target measurement object
- The compact design enables it to be mounted in small spaces. Moreover, the L-shaped mounting fixture enables easy mounting.
- Visible light is used for easy positioning, and the built-in operating indicator light enables easy setup.
- The pulse lighting method ensures that the LG-930 is virtually unaffected by ambient light.

#### ● Specifications

Detection method: Photoelectric reflection of visible light

Detection distance: 70 to 200 mm (when using the 12-mm-square reflective mark)

Object detected: Reflective mark

Maximum response speed: 25 m/s (when using the 12-mm-square reflective mark, and when the distance from the point to which the mark was affixed is 48 mm)

*\*Ono Sokki Model HT-011 is recommended as reflective mark.*

Time response delay: 0.5 ms (light receiver conversion time) or less

Light source: Light-emitting diode (red visible rays)

Light receiving element: Phototransistor

Power requirement: 12 VDC  $\pm$ 2 V

Current consumption: 85 mA or less (when using 12 V)

Output waveform: Rectangular wave Hi: +5 V  $\pm$ 0.5 V, Lo: Up to +0.5 V (on condition that a load resistance is at 100 k $\Omega$  at least.)

Output impedance: 1 k $\Omega$  or less

Operating temperature range: -10 to +60°C

Storage temperature range: -20 to +80°C

Input/output connectors: Directly attached cable with the other end open

Cable length: 4.9 m

Weight: Approx. 200 g

Accessory provided: Mounting fixture

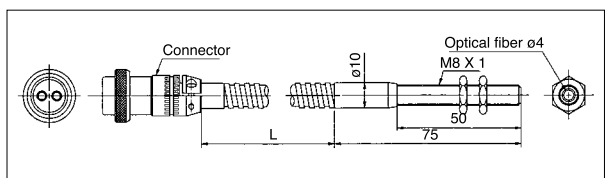
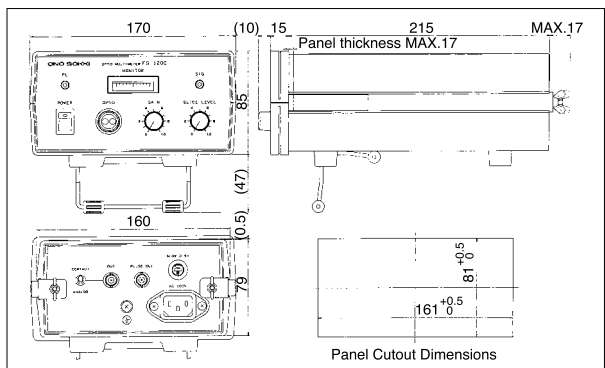
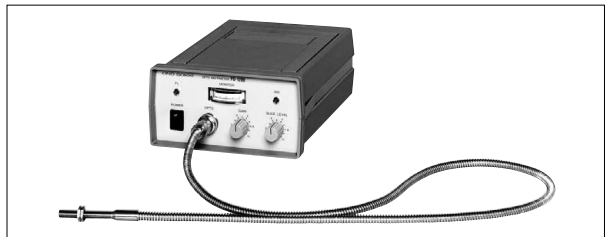
#### ● Application Example

Attach the reflective mark to the shaft of the rotating object and then perform detection.

## Photoelectric Rotation Detector FS-540/FG-1200

### Optical Fiber Sensor/Optical Multimeter

Combine the FS-540 Optical Fiber Sensor with the FG-1200 Optical Multimeter to enable a detection distance of up to 70 mm



#### ● Features

- Detects the rotational speed, number of objects, position, level, and judges whether or not an object is present
- If reflective mark (Ono Sokki Model HT-011) that generates a large amount of reflected light is affixed to the target object, detection can be performed at a distance of up to 70 mm.
- Since light is used for detection, the products are virtually unaffected by noise.
- Detection of even ultra-small amounts of light can be performed.

#### ● Specifications

##### FG-1200 Optical Multimeter

Response frequency: 0 to 5 kHz

Lighting method: Light-emitting diode (near infra-red rays)

Light receiving method: Photodiode

Output signals: Analog output (proportional to the amount of reflected light): 0 to 10 V

Load resistance: At least 10 k $\Omega$

Pulse output: Hi: +5 V, Lo: Up to +0.5 V

Load resistance: At least 10 k $\Omega$

Contact output: 0.1 A (100 VAC resistance load)

Slide level: User-specifiable setting

Connection method: Connector (compatible plug: BNC) or MX-100 Series signal cable (option)

Power requirement: 100 VAC  $\pm$ 10% (100/120/220/240 VAC on request)

Operating temperature range: 0 to +40°C

#### Gap between the optical fiber sensor and the target measurement object (when the output signal is 1 V)

Target measurement object	Minimum Gain	Maximum Gain
Black matte painted surface	$\approx$ 7 mm	$\approx$ 14 mm
White paper 12 mm x 12 mm	$\approx$ 8 mm	$\approx$ 15 mm
Mirror 12 mm x 12 mm	$\approx$ 32 mm	$\approx$ 44 mm
Reflective mark 12 mm X 12 mm (Ono Sokki Model HT-011)	$\approx$ 44 mm	$\approx$ 69 mm

#### FS-540 Optical Fiber Sensor Specifications

	FS-540	FS-340 (Manufactured after receipt of order)
Detection method	Reflective	Reflective
Diameter of fiber tip	$\phi$ 4 mm	$\phi$ 4 mm
Length of fiber (L)	1 m	1 m
Temperature	-10 to +70°C	-10 to +250°C

*\* TMF-80 swivel-neck model with magnetic base*

*\* The optical fiber can be extended up to a length of 10 m. (option)*

*\* Reflective mark Model HT-011 can be supplied as an option. 1 set of HT-011 includes 250 pcs. of reflective mark.*