

Optical Detector



LG-9200



Overview

The LG-9200 is a non-contact type optical detector which emits red visible light and detects the reflected light on a rotating shaft. The LG-9200 has a built-in compact amplifier and outputs the square wave (voltage) after waveform shaping.

Feature

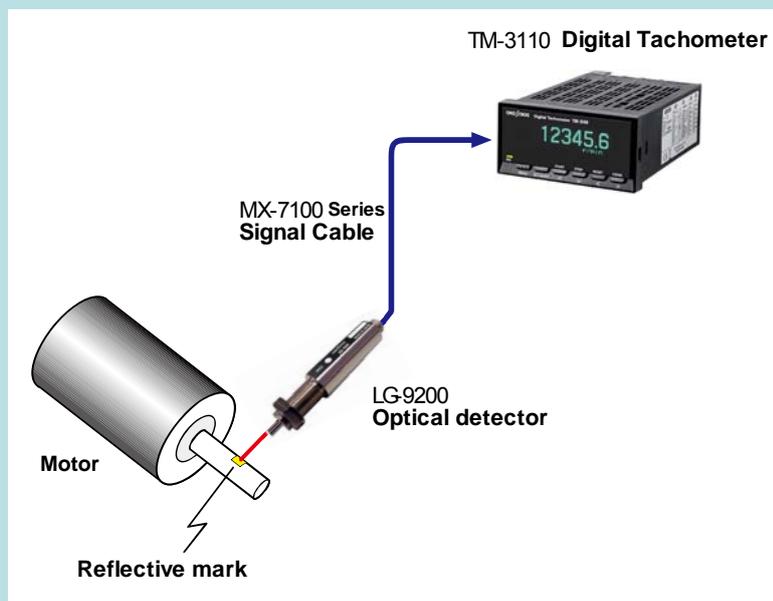
- Upgraded performances (compared to the previous model LG-916)
Detection distance : up to 40 mm
Response speed : up to 40 m/s
- Easy to adjust a position by red visible light
- Possible to detect from lower speed almost 0 r/min
- A unified structure of light source, receiver and amplifier
(weight : 150 g)
- Provided a drop-proof connector as standard

Red visible light from the LG-9200



<Measurement example>

Measuring the rotation speed with the LG-9200



Measures the rotation simply by affixing a 12mm-square reflective mark (HT-011) to a rotating shaft of the object such as a motor or a fan. By using with the digital tachometer, it enables displaying the number of rotation, output of the data.

<Specification>

Detection method : Light reflection using an optical fiber sensor

Light source : Light emitting diode (red visible light)

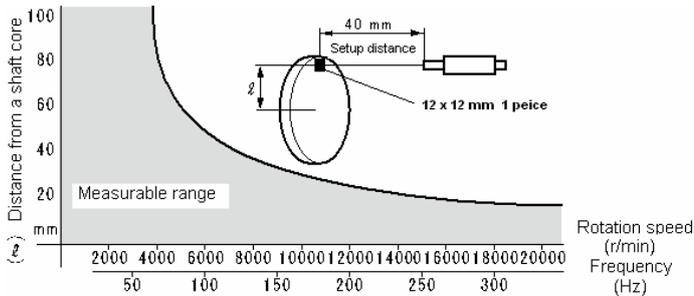
Detection distance : 20 to 40 mm (recommended distance)

*when using 12-mm square reflective mark

Max. response speed : 40 m/s

(converted by the circumferential speed of a rotating shaft)

Measurement range: Refer to the following graph



Output : Rectangular wave (Hi:+5 ±0.5 V, Lo:+0.5 V or less)

Output impedance : approx. 1 kΩ

Response delay time : 1 ms or less

Vibration resistance : 19.6 m/s² in each of X and Y direction (1 hour per each). (JISC0911-1960)

Shock resistance : 490 m/s² in each of X and Y direction, three times for each of X,Y and Z directions. (JISC0912-1960)

Operating temperature range : -10 to +60 °C

Storage temperature range : -20 to +80 °C

Weight : approx. 150 g

Power supply : DC12 V±2 V

Power consumption : 60 mA or less (at 12 V)

Applicable display : TM series, RV-3150, FV-5300

Applicable FV convertor : FV-1400

Applicable standard : CE marking

Accessories : reflective mark x 1, lock nut x 2, instruction manual x 1

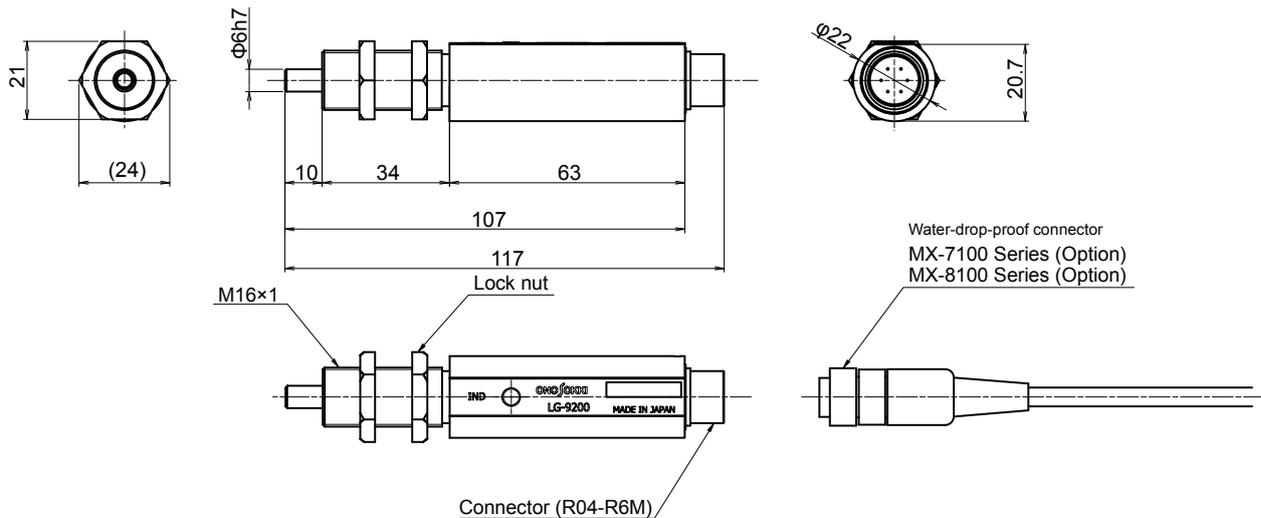
<Notice>

·Measurement range may change depending on the quality of the surface materials or color of the object.

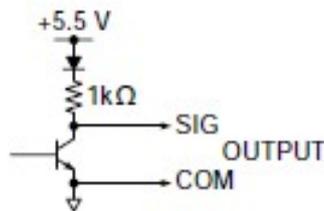
·Compliant to CE marking when the LG-9200 is used with the following products by Ono Sokki.

Tachometer : TM-3100 series, FT-2500, CT-6520B F/V convertor : FV-1400 Connecting cable: MX-7100, 8100 series

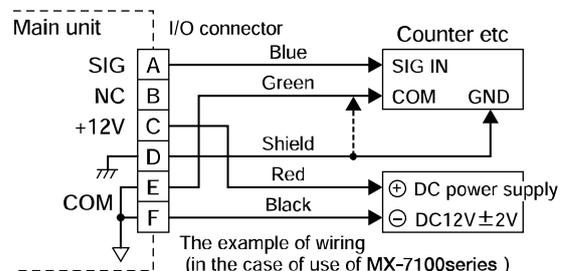
<Outer Dimensions>



<Output circuit>



<Pin Assignment>



*Outer appearance and specifications are subject to change without prior notice.

URL : <http://www.onosokki.co.jp/English/english.htm>