## **GLS**

CSM\_GLS\_DS\_E\_14\_1

# **Easy-to-use, Simple Magnetic Proximity Sensor**

- Permanent magnetic used to operate the reed switch.
- Ideal for detecting opening and closing of doors.



For the most recent information on models that have been certified for safety standards, refer to your OMRON website.



Be sure to read *Safety Precautions* on page 2.

#### **Ordering Information**

#### **Terminal Block Model (Sensor)**

Name	Model
Set	GLS-1
Sensor	GLS-S1
Magnet	GLS-M1

#### Pre-wired Model (Sensor)

Name	Cable length	Model
Set	1 m	GLS-1L
Sensor	1 1111	GLS-S1-L

Note: A magnet of the Pre-wired Model can not be purchased separately.
The magnet specifications are different for Pre-wired Models and Terminal Block Models.

### **Ratings and Specifications**

Item	Model	GLS-1	GLS-1L	
Sensing di	stance	15 mm *1		
Contact cir	rcuit	SPST-NO		
Switching	capacity *2	Maximum operating voltage: 100 VDC Maximum operating current: 0.1 A DC Maximum switching capacity: 10 W (for both open and closed contacts)		
Contact die	electric strength	250 VDC for 1 min with a leakage current of 1 mA max.		
Response	frequency	20 Hz max.		
Ambient te	emperature range	Operating/Storage: –20 to 60°C (with no icing or condensation)		
Ambient h	umidity range	Operating/storage: 35% to 85% (with no condensation)		
Contact resistance		150 m $\Omega$ max.	250 mW max. (including conductor resistance of lead wire)	
Dielectric s	strength	1,000 VAC for 1 min between terminals and case		
Life expect	tancy	50,000,000 times min. with 0.1-A resistive load at 24 VDC		
Vibration re	esistance	Destruction: 10 to 55 Hz, 1.5-mm double amplitude for 2 hours each in X, Y, and Z directions		
Shock resi	stance	Destruction: 300 m/s <sup>2</sup> 3 times each in X, Y, and Z directions		
Degree of p	protection	IP40 (IEC)		
Connection method		Terminal block	Pre-wired (standard cable length: 1 m)	
Materials	Sensor	ABS		
	Magnet			

<sup>\*1.</sup> Notice that the actual distance is 15 mm min.

<sup>\*2.</sup> AC power cannot be used.

#### **Safety Precautions**

#### Refer to Warranty and Limitations of Liability.

#### WARNING

This product is not designed or rated for ensuring safety of persons either directly or indirectly. Do not use it for such purposes.

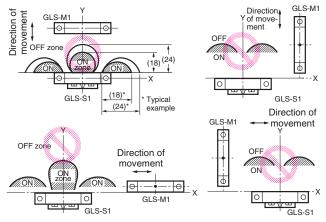


#### **Precautions for Correct Use**

Do not use this product under ambient conditions that exceed the ratings.

#### Design

#### Sensing area



- : Assumed direction of movement
- : May turn ON/OFF multiple times during each pass

#### Mounting

#### **Mounting**

The characteristics of the GLS will change if the GLS is mounted to ferrous materials, such as a steel plate.

#### Wiring

#### **Internal Wiring Diagram**



#### Miscellaneous

Do not impose excessive shock on the Sensor (e.g., dropping the Sensor from a height of 800 mm or more). Otherwise, the Sensor may malfunction (remain OFF).

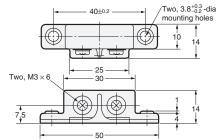
Currents or voltage exceeding the switching capacity applied to the Sensor may also cause the Sensor to malfunction (remain ON).

#### **Dimensions**

(Unit: mm) Tolerance class IT16 applies to dimensions in this data sheet unless otherwise specified.

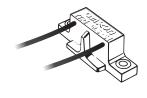
#### Sensor (terminal block) GLS-S1

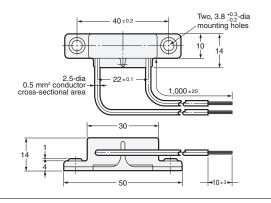




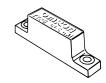
Note: Tighten each M3 screw of the terminal block to a torque of 0.59 N·m. max.

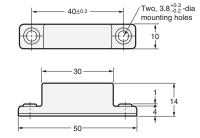
#### Sensor (pre-wired) GLS-S1-L





#### Magnet GLS-M1





Note: The shape of the magnet is the same for Pre-wired Models and Terminal Block Models, but the magnet specifications are different.

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