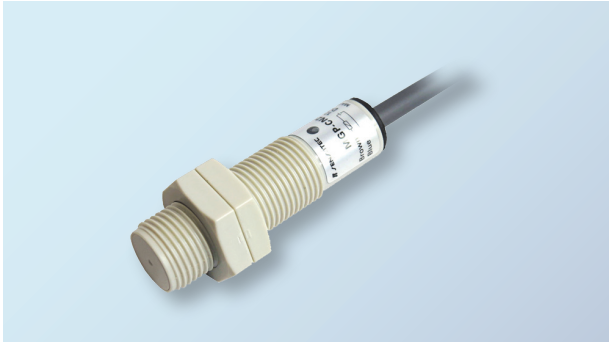
Model MGP-CN202D/CS202D Cylindrical DC 2-wire Electromagnetic Sensor



□Model List

N-pole detection	MGP-CN202D
S-pole detection	MGP-CS202D

Application

- Positioning of the machine or the like using a magnet
- Positioning of the moving object, such as in an atmosphere of intense shock
- Position detection of the moving table or the like and workpiece

Characteristics

- DC 2-wire type (Load resistance required).
- N pole detection models and S pole detection models are available. Select the model depending on your usage.
- Operation can be easily checked with the operation display light.

Rating / Performance

Model	**MGP-CN202D**	**MGP-CS202D**
Detection Surface	Front side detection	
Detection Sensitivity	2 mT or less	
Power Supply Voltage	12 V to 24 V DC (Operating voltage range : 10 V to 26.4 V DC)	
Power Consumption	Leakage current : 1 mA DC or less	
Lord Current	5 to 20 mA DC (At 25°C)	
Output Residual Voltage	4.5 V DC or less (Load current 20 mA DC)	
Operation Configuration	Normally open (On with magnetic field)	
Operation display	Red LED (Lit when On output)	
Response time	100 ms or less	
Detection polarity	N-pole	S-pole
Operating temperature range	-10 to 60 °C (-25 to 65 °C during storage)(Without dew condensation or freezing)	
Operating humidity range	90% RH or less (90% RH or less during storage)(Without dew condensation)	
Withstand voltage	1 min at 500 V AC 50/60 Hz (Between the live part and case)	
Insulation resistance	100 MΩ or more measured with an ohmmeter at 500 V DC (Between the live part and case)	
Vibration resistance	Durability : 2 hours in each X, Y, Z direction at 10 to 55 Hz and with peak-to-peak amplitude of 1.5 mm (At power off)	
Shock resistance	Durability : 3 times at 500 m/s^2 (approx. 50 G) in each X, Y, Z direction (At power off)	
Protection rating	IP65	
Case material	ABS (Nut : ABS / PC composite resin)	
Cable	ø4, 2-core round cord of 0.2 mm^2, 2 core and 2 m in length (Oil and heat resistant)	
Weight	Approx. 46 g	

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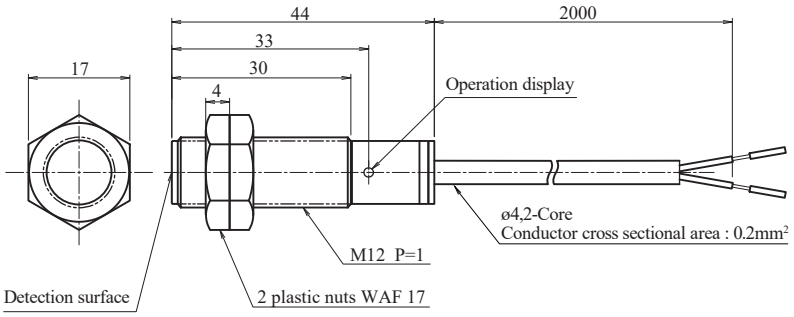
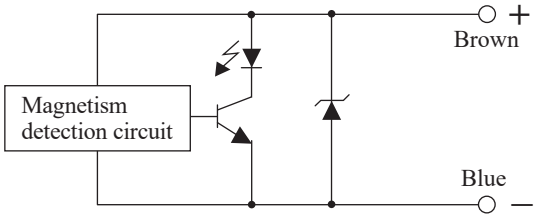
External Dimensions Diagram

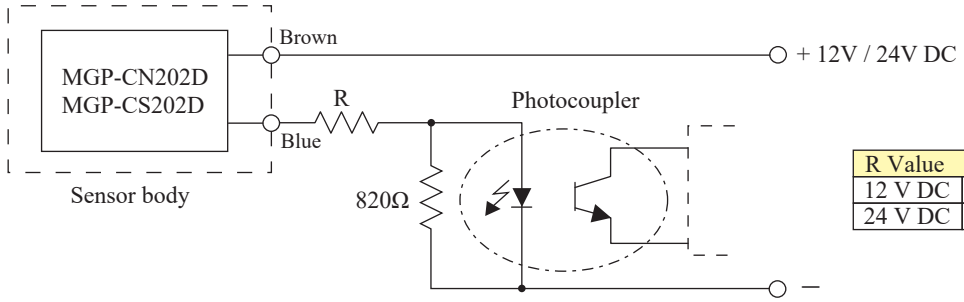


Wire Color	Signal Name
Brown	+
Blue	—

Output Circuit

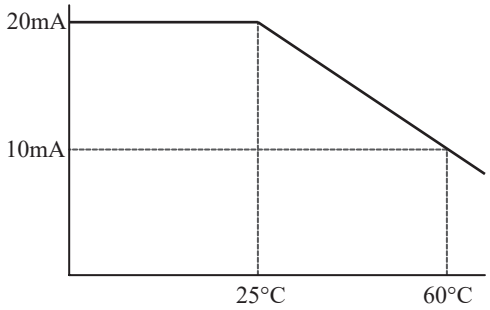


Connection Example



R Value	
12 V DC	2.2 kΩ 1/4 W
24 V DC	3.3 kΩ 1/4 W

Load Current Curve



Reference Detection Distances

Model	Detection Distance	Reset Distance
MG30-1R5 series (Width 30 mm × thickness 1.5 mm)	43 mm	45 mm
MG40-1R5 series (Width 40 mm × thickness 1.5 mm)	50 mm	52 mm
MG50-1 series (Width 50 mm × thickness 1.0 mm)	35 mm	37 mm

Usage Precautions

1. If there are magnetic objects on or around the installation location of the electromagnetic sensor, keep a distance between the sensor and these objects greater than the distance between the sensor and the magnet tape. Check also carefully the detection characteristics before using the sensor.
2. If there is magnetic metal with residual magnetism in the surroundings of the electromagnetic sensor installation location, the detection characteristics may greatly vary. Verify the detection characteristics before using the sensor.
3. Tighten the sensor using the nuts supplied with a torque of 0.5 N · m or less.
4. Always use the 2-wire type sensors via the load.
5. See Electromagnetic sensor general usage precautions for other precautions.

*For a detailed specification of the other, please refer to specifications.