

□Model List

	N-pole detection	S-pole detection
Normally open	MGM-8N501-MC	MGM-8S501-MC
Normally closed	MGM-8N5011-MC	MGM-8S5011-MC

Application

- Automatic guided vehicles guidance

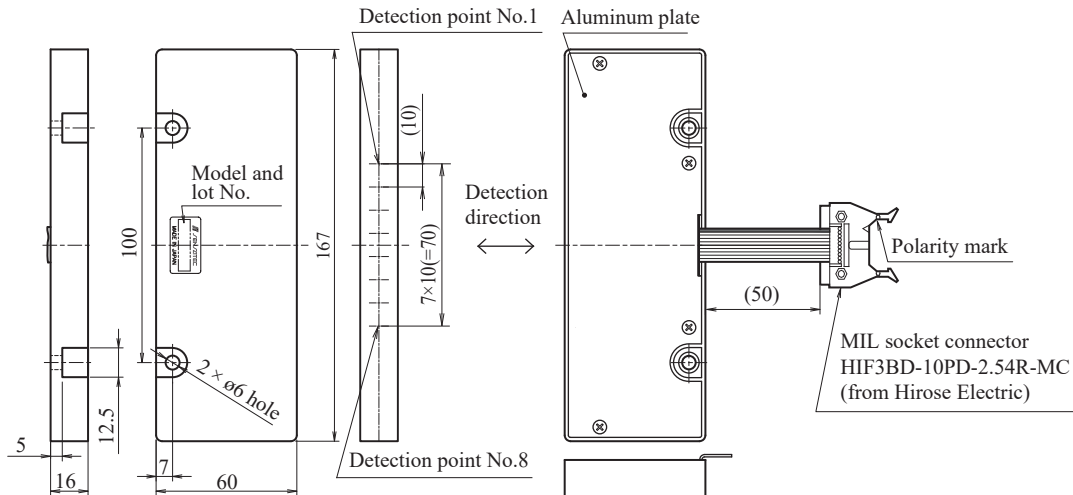
Features

- The exact position of the automatic guided vehicle to the guide tape is precisely output with increments of 10 mm with a 8-bit signal.

Rating / Performance

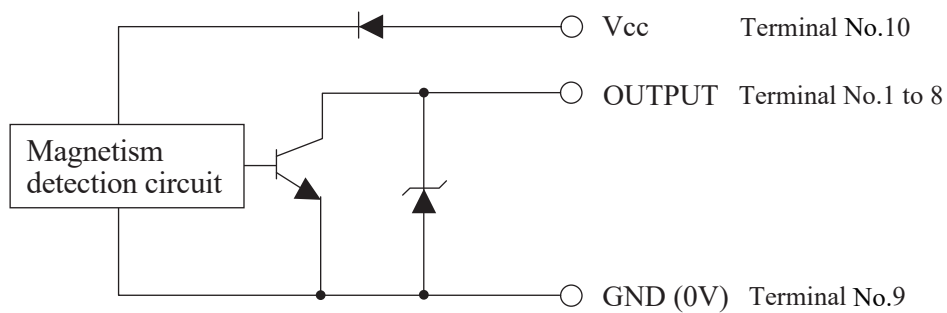
Model	MGM-8N501-MC	MGM-8N5011-MC	MGM-8S501-MC	MGM-8S5011-MC
Detection Surface	Front side detection			
Detection Sensitivity	500 μ T \pm 100 μ T (With a magnet tape of 30×30×t1.5mm)			
Power Supply Voltage	10 V DC or more to less than 36 V DC, Ripple 5% or less			
Current Consumption	80 mA DC or less (At 12 V DC), 40 mA DC or less (At 24 V DC)			
Output	NPN transistor open collector 30 V DC 50 mA DC or less			
Output Residual Voltage	0.5 V DC or less (Load current 50 mA DC)			
Operation Status	Normally open (Output ON with magnetic field)	Normally closed (Output OFF with magnetic field)	Normally open (Output ON with magnetic field)	Normally closed (Output OFF with magnetic field)
Number of Detection Points / Pitch	8 point / 10 mm			
Response Time	300 μ s or less			
Hysteresis	30 μ T or less (With a magnet tape of 30 × 30 × t1.5 mm)			
Typical Detection Distances	47 mm (*With MG50-1 series)			
Operating Set Distance	5 to 33 mm (*With MG50-1 series)			
Detection Polarity	N-pole		S-pole	
Temperature Range	-10 to 60 °C (-20 to 65 °C storage temperature range)(Without dew condensation or icing)			
Humidity Range	95% RH or less (95% RH or less storage humidity range) (Without dew condensation)			
Dielectric Strength	500 V AC for 1 minute (Between the live part and case)			
Insulation Resistance	100 M Ω or more at 500 V DC megger (Between the live part and case)			
Vibration Resistance	10 to 55 Hz, 1.5mm double amplitude in X, Y, and Z directions for 2 hours each (at power off)			
Shock Resistance	500 m/s ² (Approx. 50 G) in X, Y, and Z directions 3 times each (at power off)			
Protection	IP67 (Except for the connector part)			
Case Material	Case: ABS resin, aluminum plate t1.5 (Anodized aluminum, black)			
Connector	Plug : HIF3BD-10PD-2.54R-MC (10-pin) (From Hirose Electric)			
Cable	Flat cable of 50 mm in length			

Outline Dimensions



Pin No.	1	2	3	4	5	6	7	8	9	10
Signal Name	Output 1	Output 2	Output 3	Output 4	Output 5	Output 6	Output 7	Output 8	GND(0V)	Vcc

Output Circuit



Precautions During Use

1. If there are magnetic objects with residual magnetism in the surroundings of this sensor, the detection distance will vary. Pay attention to the mounting position and orientation of the sensor.
2. For other precautions, refer to “General Precautions” for automatic guided vehicles magnetic sensors.