imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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Magnetic Proximity Sensors (Hall Effect)

MP1005 - MP1007 Sensors

Solid state magnetic proximity sensor with electrical immunity protection



Description

The MP1 Series sensors are one-piece non-contact solid-state position sensors. The sensors operate through the use of Hall Effect technology with magnetic fields generated by permanent magnets. They provide a sinking current output.

Features

- Solid state reliability
- Stable output over operating temperature range
- Compatible with unregulated power supply
- South pole activated
- Open collector (sinking or NPN) output can be used with bipolar or CMOS logic circuits with suitable pull-up resistor
- RoHS compliant
- IP67

Environmental Specifications

Operating Temperature (MP100502) -40 °C to 85 °C (-40 °F to 185 °F) Operating Temperature (MP100701) -40 °C to 150 °C (-40 °F to 302 °F) Storage Temperature (MP100502) -40 °C to 85 °C (-40 °F to 185 °F) Storage Temperature (MP100701) -40 °C to 150 °C (-40 °F to 302 °F) Ingress Protection IP67

Electrical Specifications

Operating Supply Voltage	5 to 24 VDC
Supply Current	4.1 mA typ., 7.5 mA max.
Output Current (Sink)	25 mA max.
Output Off Voltage	30 VDC
Maximum Input Voltage	30 VDC
Maximum Reverse Voltage	30 VDC
Pull-up Resistor	See chart

Mechanical Specifications

-	
Housing Material	Aluminium
Maximum Installation Torque Limit	50 in lbs on threads

Products

Part Number	Housing Color	Termination
MP100502	Red	20 AWG x 1 m
MP100701	Black	20 AWG x 1 m

Note: An external pull-up resistor is required, the value of which is dependent on the supply voltage. The resistor should be connected between the output and Vcc. Refer to the wiring diagram for lead colors or pin numbering as applicable.

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Page 1 of 2, last update 2015-01-12, Specifications subject to change without notice.

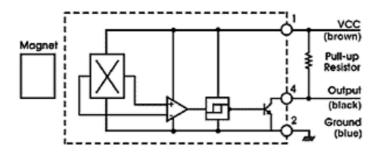


Typical Applications

- Door position & interlock
- Limit switch
- Flow/speed
- Home security
- Pedal switch

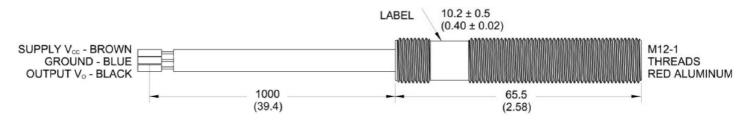
Recommended External Pull-Up Resistor							
Volts DC	5	9	12	15	24		
Ohms	1k	1.8k	2.4k	3k	3k		

Open Collector Sinking Block Diagram

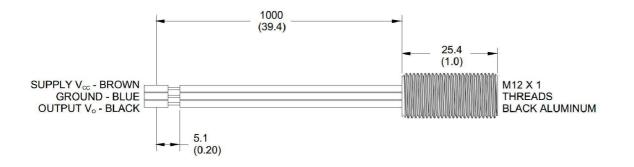


Dimensions mm (inches)

MP100502



MP100701



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