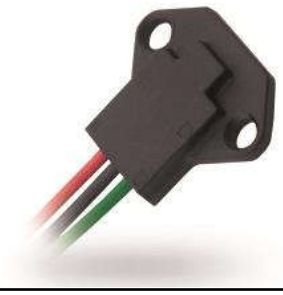
Magnetic Proximity Sensors (Hall Effect)



MP1014 Sensors

Digital Hall-effect position sensor
in low-profile flange-mount housing

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
- South pole sensitive
- Unipolar device
- RoHS compliant
- Low profile design
- IP65

Typical Applications

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

Environmental Specifications

Operating Temperature	-40 °C to 85 ^{0}C (-40 ^{0}F to 185 ^{0}F)
StorageTemperature	-40 °C to 100 ^{0}C (-40 ^{0}F to 212 ^{0}F)
Ingress Protection	IP65

Electrical Specifications

Operating Supply Voltage (MP101401)	4.5 to 18 VDC
Operating Supply Voltage (MP101402)	4.5 to 24 VDC
Supply Current	3.0 mA typ., 5.2 mA max.
Output Current (Sink)	20 mA max.
Maximum Reverse Voltage (MP101401)	18 VDC
Maximum Reverse Voltage (MP101402)	15 VDC
Recommended Pull-Up Resistor	See chart

Mechanical Specifications

Housing Material	Glass-reinforced nylon plastic
Turn on / off (MP101401)	139 Gauss / 47 Gauss
Turn on / off (MP101402)	77 Gauss / 17 Gauss

Products

Part Number	Leads
MP101401	24 AWG x 314 mm
MP101402[#]	24 AWG x 314 mm

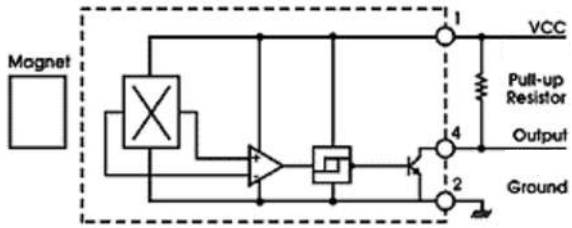
[#] Obsolete as of June, 2016

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.

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)

