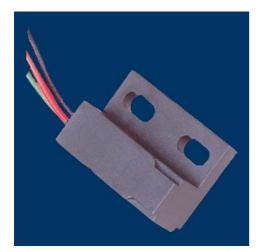
## MP1021 Series



#### Digital Hall effect proximity sensor in plastic flange mount housing

#### **Features**

- Three sensing orientations available in a convenient flange mount housing.
- Excellent output stability over operating temperature range.
- Compatible with unregulated power supply
- Reverse battery protection to -24VDC
- Meets IEC529 IP67 for dust and water protection
- Open collector (NPN) output can be used with bipolar switch or cmos logic circuits with suitable pull up resistor

MP102101-03: North pole activated unipolar switch.

- Output switches low (off) when the magnetic field at the sensor exceeds the operate point threshold
- Output switches high (on) when the magnetic field is reduced to below the release point threshold

### MP102104-06. Bipolar latch

- Output latches high (on) in the presence of a north pole
- Output unlatches (low or off) in the presence of a south pole.

### **Applications:**

Interrupt Switch

Limit security

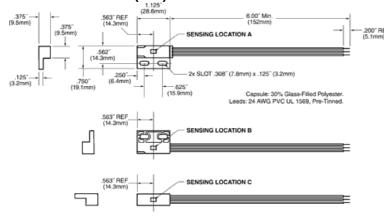
Door position

#### **Specifications**

Operating Voltage Range (VDC)	Supply Current (mA max.)	Output	Output Saturation Voltage (mV max.)	Output Current (mA max.)	Operating Temp Range (°C)	Function	Operate Point Gauss (max.)	Release Point Gauss (min.)	Sensing Location
4.5 - 24	12	3-wire sink	500	25	-40 to 85	Switch	400 (north)	195 (north)	Α
4.5 - 24	12	3-wire sink	500	25	-40 to 85	Switch	400 (north)	195 (north)	В
4.5 – 24	12	3-wire sink	500	25	-40 to 85	Switch	400 (north)	195 (north)	С
4.5 - 24	12	3-wire sink	500	25	-40 to 85	Latch	60 (north)	60 (south)	Α
4.5 - 24	12	3-wire sink	500	25	-40 to 85	Latch	60 (north)	60 (south)	В
4.5 - 24	12	3-wire sink	500	25	-40 to 85	Latch	60 (north)	60 (south)	С
	Voltage Range (VDC) 4.5 - 24 4.5 - 24 4.5 - 24 4.5 - 24 4.5 - 24	Voltage Range (VDC) 4.5 – 24 4.5 – 24 4.5 – 24 4.5 – 24 4.5 – 24 12 4.5 – 24 12 4.5 – 24 12	Voltage Range (VDC)         Current (mA max.)         Output           4.5 - 24         12         3-wire sink           4.5 - 24         12         3-wire sink	Operating Voltage Range (VDC)         Supply Current (MA max.)         Output Output (MV max.)         Saturation Voltage (MV max.)           4.5 - 24         12         3-wire sink         500           4.5 - 24         12         3-wire sink         500	Operating Voltage Range (VDC)         Supply Current (mA max.)         Output Voltage Range (MV max.)         Output Current (mA max.)           4.5 - 24         12         3-wire sink         500         25           4.5 - 24         12         3-wire sink         500         25	Operating Voltage Range (VDC)         Supply Current (MA max.)         Output Output         Saturation Voltage (MV max.)         Output Current (MA max.)         Operating Tem Panage (°C)           4.5 - 24         12         3-wire sink         500         25         -40 to 85           4.5 - 24         12         3-wire sink         500         25         -40 to 85           4.5 - 24         12         3-wire sink         500         25         -40 to 85           4.5 - 24         12         3-wire sink         500         25         -40 to 85           4.5 - 24         12         3-wire sink         500         25         -40 to 85           4.5 - 24         12         3-wire sink         500         25         -40 to 85	Operating Voltage Range (VDC)         Supply Current (MA max.)         Output (MV max.)         Saturation Voltage (mV max.)         Output Current (MA max.)         Operating Temp Range (°C)         Function           4.5 - 24         12         3-wire sink         500         25         -40 to 85         Switch           4.5 - 24         12         3-wire sink         500         25         -40 to 85         Switch           4.5 - 24         12         3-wire sink         500         25         -40 to 85         Switch           4.5 - 24         12         3-wire sink         500         25         -40 to 85         Latch           4.5 - 24         12         3-wire sink         500         25         -40 to 85         Latch           4.5 - 24         12         3-wire sink         500         25         -40 to 85         Latch	Operating Voltage Range (VDC)         Supply Current (MA max.)         Saturation Voltage (mV max.)         Output (mN max.)         Output (mN max.)         Operating Temp Range (°C)         Function         Point Gauss (max.)           4.5 - 24         12         3-wire sink         500         25         -40 to 85         Switch         400 (north)           4.5 - 24         12         3-wire sink         500         25         -40 to 85         Switch         400 (north)           4.5 - 24         12         3-wire sink         500         25         -40 to 85         Switch         400 (north)           4.5 - 24         12         3-wire sink         500         25         -40 to 85         Latch         60 (north)           4.5 - 24         12         3-wire sink         500         25         -40 to 85         Latch         60 (north)	Operating Voltage Range (VDO)         Supply Current (VDO)         Saturation (VDO)         Output (mV max.)         Output Current (mA max.)         Output Current (mA max.)         Output Current (mA max.)         Output Current (mA max.)         Operating Temp Range (°C)         Function (°C)         Point Gauss (max.)         Point Gauss (min.)           4.5 - 24         12         3-wire sink         500         25         -40 to 85         Switch         400 (north)         195 (north)           4.5 - 24         12         3-wire sink         500         25         -40 to 85         Switch         400 (north)         195 (north)           4.5 - 24         12         3-wire sink         500         25         -40 to 85         Switch         400 (north)         195 (north)           4.5 - 24         12         3-wire sink         500         25         -40 to 85         Latch         60 (north)         60 (south)           4.5 - 24         12         3-wire sink         500         25         -40 to 85         Latch         60 (north)         60 (south)

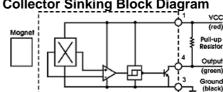
Notes: These sensors require the use of an external pull-up resistor, the value of which is dependent on the supply voltage. Pull-up resistor should be connected between output (Green) and Vcc (Red).

#### **Dimensions inches (mm)**



Specifications subject to change without notice.

# **Open Collector Sinking Block Diagram**



#### Recommended pull-up resistor values:

Volts DC:	5	9	12	15	24
Ohms:	1K	1.8K	2.4K	3K	3K

Last Updated 0111

