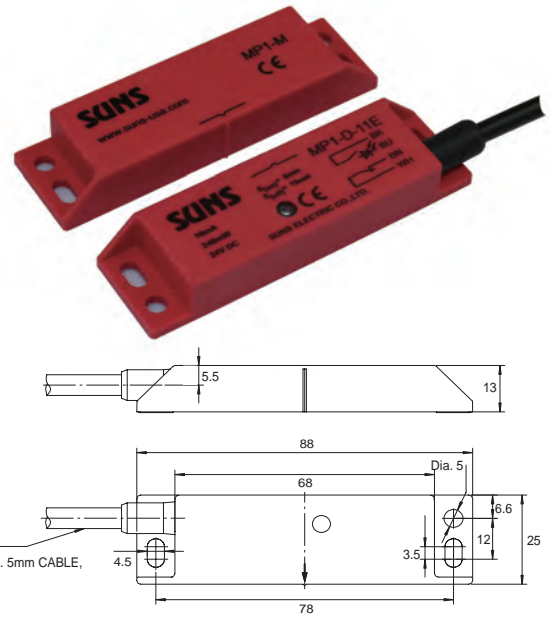


MP-1 Series Magnetic Safety Switches (IP68)

Technical Specifications

Housing material	Glassfiber Reinforced Plastics
Ambient temperature	-25 to 70°C (-13 to 158°F)
Degree of protection	IP 68 (IEC/EN 60529)
Switching voltage	100V AC/DC 400mA or
Switching current I _e max.	230VAC 2A 30VDC 1A
Auxiliary contact	24V DC
Switching voltage	10mA
Switching current I _e max.	
Method of operation	Magnetic, reed contact
Mech. life	10 millions cycles
Vibration resistance	As per IEC/EN 60947-5-2
Impact strength	50 g/ms
Shock resistance	11 g/ms
EMC compliance	In acc. with EN 61496-1/EN 50022 Part A



24AWG, 4-6 CORE Dia. 5mm CABLE.

Ordering table

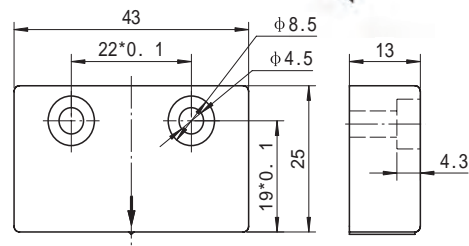
* Dimensions of the actuators are the same as switches except without cable

Item	Actuator Part Number	Switching Distance S _{on} [mm]	Circuit Diagram Gate Closed	Maximum Contact Ratings
MP1-D-03P	MP1-M	S _{on} : 6mm		100V AC/DC 400mA
MP1-D-03PM	MP1-MM	S _{on} : 9mm		
MP1-D-03PL	MP1-ML	S _{on} : 18mm		
MP1-D-03S	MP1-M	S _{on} : 6mm		
MP1-D-03SM	MP1-MM	S _{on} : 9mm		
MP1-D-03SL	MP1-ML	S _{on} : 18mm		
MP1-D-11	MP1-M	S _{on} : 6mm S _{off} : 15mm		100V AC/DC 400mA
MP1-D-11M	MP1-MM	S _{on} : 9mm S _{off} : 18mm		
MP1-D-11E	MP1-M	S _{on} : 6mm S _{off} : 15mm		24VDC 10mA
MP1-D-11ME	MP1-MM	S _{on} : 9mm S _{off} : 18mm		
MP1-D-12S	MP1-M	S _{on} : 6mm S _{off} : 15mm		100V AC/DC 400mA
MP1-D-12SM	MP1-MM	S _{on} : 9mm S _{off} : 18mm		
MP1-D-12SE	MP1-M	S _{on} : 6mm S _{off} : 15mm		24VDC 10mA
MP1-D-12SME	MP1-MM	S _{on} : 9mm S _{off} : 18mm		
MP1-D-12	MP1-M	S _{on} : 6mm S _{off} : 15mm		100V AC/DC 400mA
MP1-D-12M	MP1-MM	S _{on} : 9mm S _{off} : 18mm		
MP1-D-12E	MP1-M	S _{on} : 6mm S _{off} : 15mm		
MP1-D-12ME	MP1-MM	S _{on} : 9mm S _{off} : 18mm		24VDC 10mA
MP1-D-04E	MP1-M	S _{on} : 6mm		
MP1-D-04EM	MP1-MM	S _{on} : 9mm		24VDC 10mA
MP1-D-02	MP1-M	S _{on} : 6mm		
MP1-D-02M	MP1-MM	S _{on} : 9mm		100V AC/DC 400mA
MP1-A-10	MP1-M	S _{on} : 6mm		
MP1-A-10M	MP1-MM	S _{on} : 9mm		230VAC 2A 30VDC 1A

MP-2 Series Magnetic Safety Switches (IP68)

Technical Specifications

Housing material	Glassfiber Reinforced Plastics
Ambient temperature	-25 to 70°C (-13 to 158°F)
Degree of protection	IP 68 (IEC/EN 60529)
Switching voltage	100V AC/DC 400mA
Switching current $I_{e,max}$	
Auxiliary contact	24V DC 10mA
Switching voltage	
Switching current $I_{e,max}$	
Method of operation	Magnetic, reed contact
Mech. life	10 millions cycles
Vibration resistance	As per IEC/EN 60947-5-2
Impact strength	50 g/ms
Shock resistance	11 g/ms
EMC compliance	In acc.with EN 61496-1/EN 50022 Part A



Ordering table

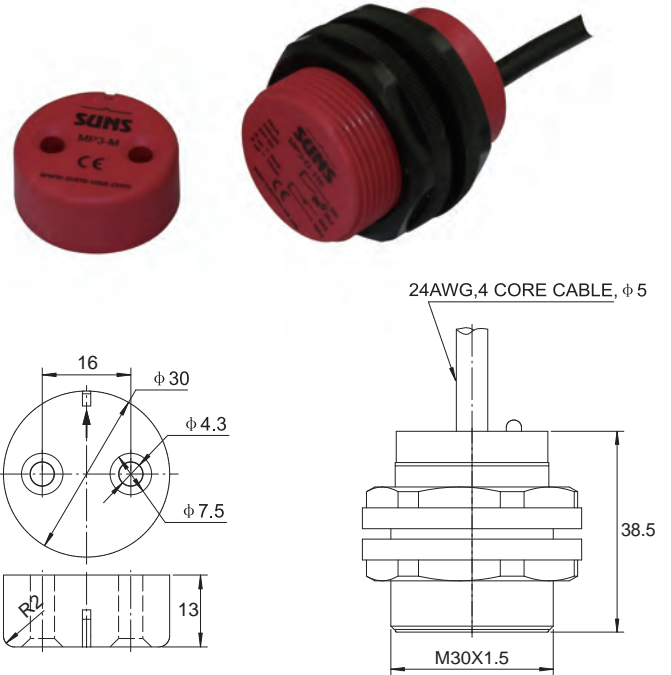
* Dimensions of the actuators are the same as switches except without cable

Item	Actuator Part Number	Switching Distance S_{on} [mm]	Circuit Diagram Gate Closed	Maximum Contact Ratings
MP2-D-03P	MP2-M	$S_{on} : 6mm$ $S_{off} : 15mm$		100V AC/DC 400mA
MP2-D-03S	MP2-M	$S_{on} : 6mm$ $S_{off} : 15mm$		100V AC/DC 400mA
MP2-D-11	MP2-M	$S_{on} : 6mm$ $S_{off} : 15mm$		100V AC/DC 400mA
MP2-D-11E	MP2-M	$S_{on} : 6mm$ $S_{off} : 15mm$		24VDC 10mA
MP2-D-12S	MP2-M	$S_{on} : 6mm$ $S_{off} : 15mm$		100V AC/DC 400mA
MP2-D-12SE	MP2-M	$S_{on} : 6mm$ $S_{off} : 15mm$		24VDC 10mA
MP2-D-02	MP2-M	$S_{on} : 6mm$ $S_{off} : 15mm$		100V AC/DC 400mA
MP2-D-12	MP2-M	$S_{on} : 6mm$ $S_{off} : 15mm$		100V AC/DC 400mA

MP-3 Series Magnetic Safety Switches (IP68)

Technical Specifications

Housing material	Glassfiber Reinforced Plastics
Ambient temperature	-25 to 70 °C (-13 to 158°F)
Degree of protection	IP 68 (IEC/EN 60529)
Switching voltage	100V AC/DC
Switching current I _e max.	400mA
Auxiliary contact	24V DC
Switching voltage	10mA
Switching current I _e max.	
Method of operation	Magnetic, reed contact
Mech. life	10 millions cycles
Vibration resistance	As per IEC/EN 60947-5-2
Impact strength	50 g/ms
Shock resistance	11 g/ms
EMC compliance	In acc. with EN 61496-1/EN 50022 Part A



Ordering table

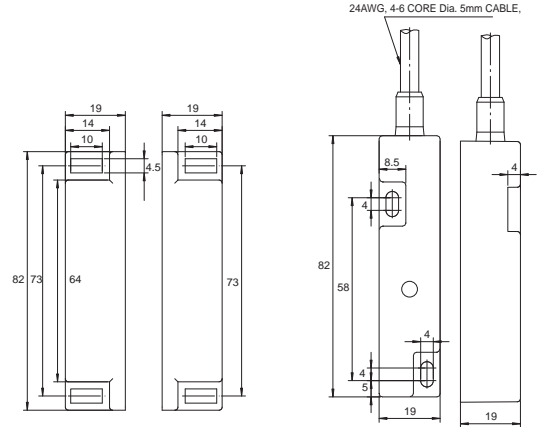
* Dimensions of the actuators are the same as switches except without cable

Item	Actuator Part Number	Switching Distance S _{on} [mm]	Circuit Diagram Gate Closed	Maximum Contact Ratings
MP30-D-03P	MP30-M	S _{on} : 6mm		100V AC/DC 400mA
MP30-D-03PM	MP30-MM	S _{on} : 9mm		
MP30-D-03S	MP30-M	S _{on} : 6mm		100V AC/DC 400mA
MP30-D-03SM	MP30-MM	S _{on} : 9mm		
MP30-D-11	MP30-M	S _{on} : 6mm S _{off} : 15mm		100V AC/DC 400mA
MP30-D-11M	MP30-MM	S _{on} : 9mm S _{off} : 18mm		
MP30-D-11E	MP30-M	S _{on} : 6mm S _{off} : 15mm		24VDC 10mA
MP30-D-11ME	MP30-MM	S _{on} : 9mm S _{off} : 18mm		
MP30-D-12S	MP30-M	S _{on} : 6mm S _{off} : 15mm		100V AC/DC 400mA
MP30-D-12SM	MP30-MM	S _{on} : 9mm S _{off} : 18mm		
MP30-D-12SE	MP30-M	S _{on} : 6mm S _{off} : 15mm		24VDC 10mA
MP30-D-12SME	MP30-MM	S _{on} : 9mm S _{off} : 18mm		
MP30-D-02	MP30-M	S _{on} : 6mm S _{off} : 15mm		100V AC/DC 400mA
MP30-D-02M	MP30-MM	S _{on} : 9mm S _{off} : 18mm		

MP-4 Series Magnetic Safety Switches (IP68)

Technical Specifications

Housing material	Glassfiber Reinforced Plastics
Ambient temperature	-25 to 70°C (-13 to 158°F)
Degree of protection	IP 68 (IEC/EN 60529)
Switching voltage	100V AC/DC 400mA or
Switching current $I_{e,max}$	230VAC 2A 30VDC 1A
Auxiliary contact	24V DC
Switching voltage	10mA
Method of operation	Magnetic, reed contact
Mech. life	10 millions cycles
Vibration resistance	As per IEC/EN 60947-5-2
Impact strength	50 g/ms
Shock resistance	11 g/ms
EMC compliance	In acc.with EN 61496-1/EN 50022 Part A



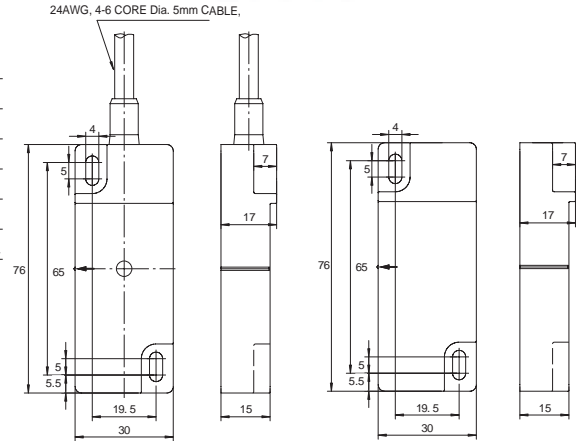
Ordering table

Item	Actuator Part Number	Switching Distance S_{on} [mm]	Circuit Diagram Gate Closed	Maximum Contact Ratings
MP4-A-10	MP4-M	S_{on} :6mm		230VAC 2A 30VDC 1A
MP4-A-10M	MP4-MM	S_{on} :9mm		
MP4-D-03P	MP4-M	S_{on} :6mm		100V AC/DC 400mA
MP4-D-03PM	MP4-MM	S_{on} :9mm		
MP4-D-03S	MP4-M	S_{on} :6mm		100V AC/DC 400mA
MP4-D-03SM	MP4-MM	S_{on} :9mm		
MP4-D-11	MP4-M	S_{on} :6mm S_{off} :15mm		100V AC/DC 400mA
MP4-D-11M	MP4-MM	S_{on} :9mm S_{off} :18mm		
MP4-D-11E	MP4-M	S_{on} :6mm S_{off} :15mm		24VDC 10mA
MP4-D-11EM	MP4-MM	S_{on} :9mm S_{off} :18mm		
MP4-D-12S	MP4-M	S_{on} :6mm S_{off} :6mm		100V AC/DC 400mA
MP4-D-12SM	MP4-MM	S_{on} :9mm S_{off} :18mm		
MP4-D-12SE	MP4-M	S_{on} :6mm S_{off} :15mm		24VDC 10mA
MP4-D-12SME	MP4-MM	S_{on} :9mm S_{off} :18mm		
MP4-D-12	MP4-M	S_{on} :6mm S_{off} :15mm		100V AC/DC 400mA
MP4-D-12M	MP4-MM	S_{on} :9mm S_{off} :18mm		
MP4-D-12E	MP4-M	S_{on} :6mm S_{off} :15mm		24VDC 10mA
MP4-D-12ME	MP4-MM	S_{on} :9mm S_{off} :18mm		

MP-5 Series Magnetic Safety Switches (IP68)

Technical Specifications

Housing material	Glassfiber Reinforced Plastics
Ambient temperature	-25 to 70°C (-13 to 158°F)
Degree of protection	IP 68 (IEC/EN 60529)
Switching voltage	100V AC/DC 400mA or 230VAC 2A 30VDC 1A
Switching current $I_{e,max}$.	24V DC 10mA
Auxiliary contact	24V DC
Switching voltage	10mA
Method of operation	Magnetic, reed contact
Mech. life	10 millions cycles
Vibration resistance	As per IEC/EN 60947-5-2
Impact strength	50 g/ms
Shock resistance	11 g/ms
EMC compliance	In acc.with EN 61496-1/EN 50022 Part A



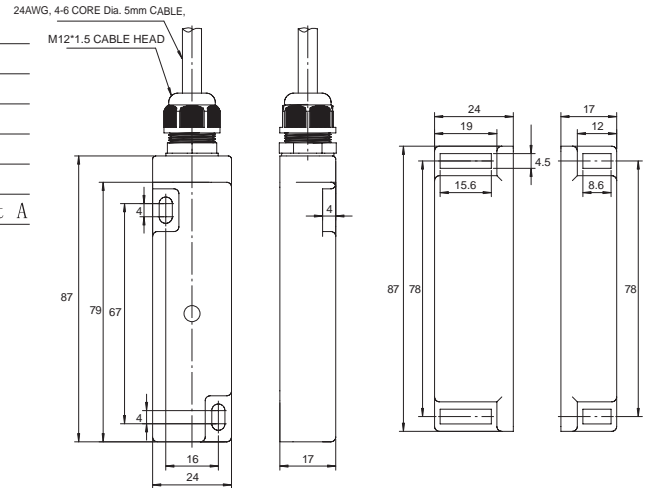
Ordering table

Item	Actuator Part Number	Switching Distance S_{on} [mm]	Circuit Diagram Gate Closed	Maximum Contact Ratings
MP5-A-10	MP5-M	S_{on} :6mm		230VAC 2A 30VDC 1A
MP5-A-10M	MP5-MM	S_{on} :9mm		
MP5-D-03P	MP5-M	S_{on} :6mm		100V AC/DC 400mA
MP5-D-03PM	MP5-MM	S_{on} :9mm		
MP5-D-03S	MP5-M	S_{on} :6mm		100V AC/DC 400mA
MP5-D-03SM	MP5-MM	S_{on} :9mm		
MP5-D-11	MP5-M	S_{on} :6mm S_{off} :15mm		100V AC/DC 400mA
MP5-D-11M	MP5-MM	S_{on} :9mm S_{off} :18mm		
MP5-D-11E	MP5-M	S_{on} :6mm S_{off} :15mm		24VDC 10mA
MP5-D-11EM	MP5-MM	S_{on} :9mm S_{off} :18mm		
MP5-D-12S	MP5-M	S_{on} :6mm S_{off} :6mm		100V AC/DC 400mA
MP5-D-12SM	MP5-MM	S_{on} :9mm S_{off} :18mm		
MP5-D-12SE	MP5-M	S_{on} :6mm S_{off} :15mm		24VDC 10mA
MP5-D-12SME	MP5-MM	S_{on} :9mm S_{off} :18mm		
MP5-D-12	MP5-M	S_{on} :6mm S_{off} :15mm		100V AC/DC 400mA
MP5-D-12M	MP5-MM	S_{on} :9mm S_{off} :18mm		
MP5-D-12E	MP5-M	S_{on} :6mm S_{off} :15mm		24VDC 10mA
MP5-D-12ME	MP5-MM	S_{on} :9mm S_{off} :18mm		

MP-6 Series Magnetic Safety Switches (IP68)

Technical Specifications

Housing material	Glassfiber Reinforced Plastics
Ambient temperature	-25 to 70°C (-13 to 158°F)
Degree of protection	IP 68 (IEC/EN 60529)
Switching voltage	100V AC/DC 400mA or
Switching current $I_{e,max}$.	230VAC 2A 30VDC 1A
Auxiliary contact	24V DC
Switching voltage	10mA
Method of operation	Magnetic, reed contact
Mech. life	10 millions cycles
Vibration resistance	As per IEC/EN 60947-5-2
Impact strength	50 g/ms
Shock resistance	11 g/ms
EMC compliance	In acc.with EN 61496-1/EN 50022 Part A



Ordering table

Item	Actuator Part Number	Switching Distance S_{on} [mm]	Circuit Diagram Gate Closed	Maximum Contact Ratings
MP6-A-10	MP6-M	S_{on} :10mm S_{off} : 30mm		230VAC 2A 30VDC 1A
MP6-A-01	MP6-M	S_{on} :10mm S_{off} : 30mm		230VAC 2A 30VDC 1A
MP6-D-02	MP6-M	S_{on} :10mm S_{off} : 30mm		100V AC/DC 400mA
MP6-D-11	MP6-M	S_{on} :10mm S_{off} : 30mm		100V AC/DC 400mA
MP6-D-12	MP6-M	S_{on} :10mm S_{off} : 30mm		100V AC/DC 400mA

MP50-2RZ Series Magnetic Safety Switches (IP67)

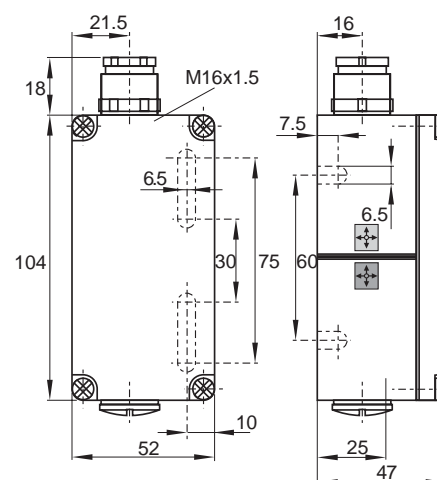
Features

- Robust metal housing
- Large wiring compartment
- High resistance to vibration
- High switching capacity
- IEC 60947-5-3, EN 954-1
- Long switching distance



Technical Specifications

Housing material	Aluminum die cast
Ambient temperature	-25 to 90° C (-13 to 194 F)
Degree of protection	IP 67 (IEC/EN 60529)
Safety Contact Rating	250Vac / 3Amps max. 120VA/W
Dielectric Strength	> 600VAC (50/60Hz)
Switching time	Close: 0.3-1.5ms Open: 0.5 ms (max)
Contact Configuration	1NO/1NC
Actuating Speed	18m/s (max)
Switching Accuracy	+/- 0.25mm
Switching Distance	35mm
Method of operation	Magnetic, reed contact
Mech. life	10 millions cycles
Vibration resistance	As per IEC/EN 60947-5-2
Impact strength	50 g/ms
Shock resistance	11 g/ms
EMC compliance	In acc.with EN 61496-1/EN 50022 Part A



RDS SERIES RFID NON-CONTACT SAFETY SWITCH

Features

- Actuation without contact, using RFID technology
- Digitally coded actuator
- 3 LEDs for status display
- Connecting up to 32 sensors in series
- Short-circuit protection, polarity-reversing protection
- Safety category: up to SIL 3, PL e and Category 4

Specifications

Operating voltage	24VDC
Operating current	<20mA
Max. output current	200mA
For safety applications up to	SIL3 acc. to EN 62061 PL e acc. to EN ISO 13849-1 Type 4 acc. to EN ISO 14119
Housing material	Fiber-reinforced plastic
Operating temperature	-25°+70°
Switching frequency	2Hz
Sensing distance	10mm
Enclosure protection	IP69K

Selection Guide:

RDS	1	-	D	1	L2	-	0
	Code Mechanism			Output Configuration	Connection Type		Actuator*
	1: Low level**			1: Standard 7 outputs	L01: 0.1m cable		None: Sensor only
	2: High level**			2: With external device monitoring output	L05: 0.5m cable		S: Standard actuator
	3: Blank actuator***			3: Inverse RFID output	L2: 2m cable		E: Extended-range actuator
					L10: 10m cable		
					M: M12 connector		

* For actuator only, part number would be: RDA1, RDA2 or RDA3 followed by -S or -E
 ** Low level means the sensor recognises all low level coded actuators. High level are defined by one to one correspondence
 *** Blank actuators sold separately can be programmed into high level actuators by putting them near the intended sensor and waiting for RFID_OUT Led blinking 5 times. Afterwards, The actuator can be recognised.

Pictures:



Wiring Diagram:

- Brown VCC (10-30V)
- Blue GND (Ground line)
- Orange GPIO_OUT (Safety output)
- Red GPIO_OUT (Safety output)
- Green RFID_OUT (RFID authentication through output)
- White IN1 (input 1)
- Yellow IN2 (input 2)
- Black PROGRAM (Programming mouth)

Dimensions:

Sensor

Actuator

