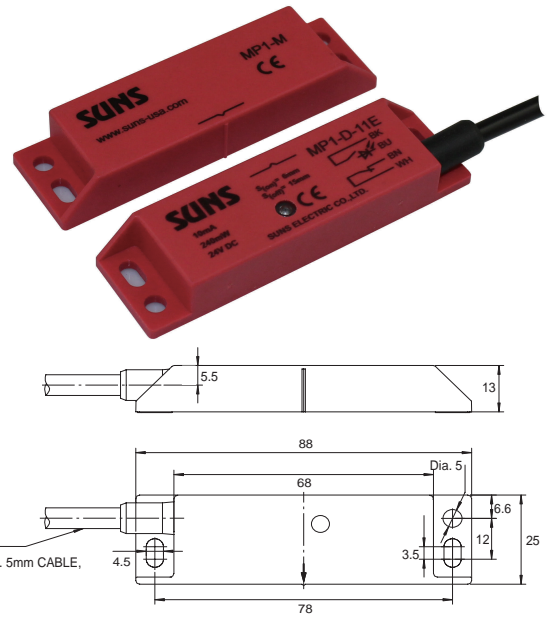


## MP-1 Series Magnetic Safety Switches (IP68)

### 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 <sub>e</sub> max.	230VAC 2A 30VDC 1A
Auxiliary contact	24V DC
Switching voltage	10mA
Switching current I <sub>e</sub> 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

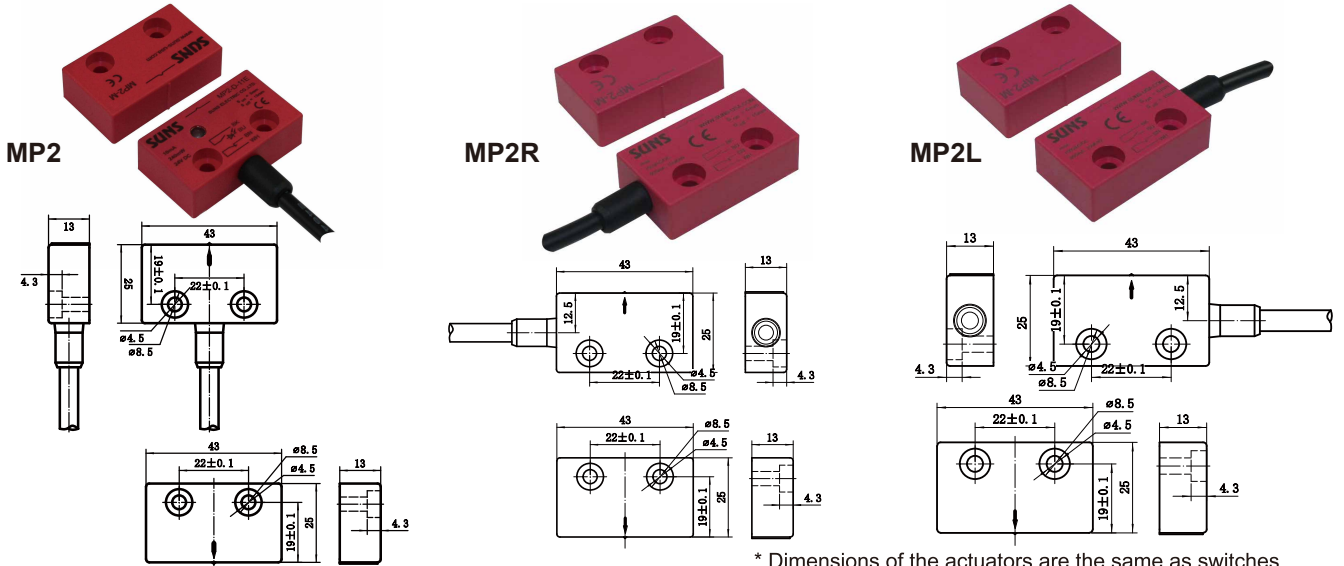
\* Dimensions of the actuators are the same as switches except without cable

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

## MP-2 Series Magnetic Safety Switches (IP68)

### Technical Specifications

<b>Housing material:</b>	Glassfiber Reinforced Plastics	<b>Method of operation:</b>	Magnetic, reed contact
<b>Ambient temperature:</b>	-25 to 70°C (-13 to 158°F)	<b>Mech. life:</b>	10 millions cycles
<b>Degree of protection:</b>	IP68 (IEC/EN 60529)	<b>Vibration resistanc:</b>	As per IEC/EN 60947-5-2
<b>Switching voltage:</b>	100V AC/DC 400mA	<b>Impact strength:</b>	50 g/ms
<b>Switching current I<sub>o</sub>max:</b>		<b>Shock resistance:</b>	11 g/ms
<b>Auxiliary contact:</b>	24V DC 10mA	<b>EMC compliance:</b>	In acc. with EN 61496-1/EN 50022 Part A
<b>Switching voltage:</b>			
<b>Switching current I<sub>o</sub>max:</b>			



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

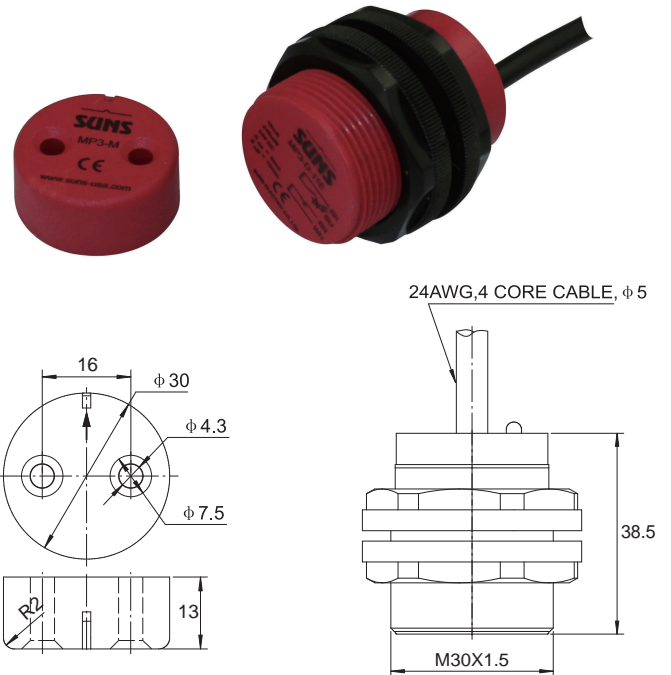
### Ordering table

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

## MP-30 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 <sub>e</sub> max.	400mA
Auxiliary contact	24V DC
Switching voltage	10mA
Switching current I <sub>e</sub> 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

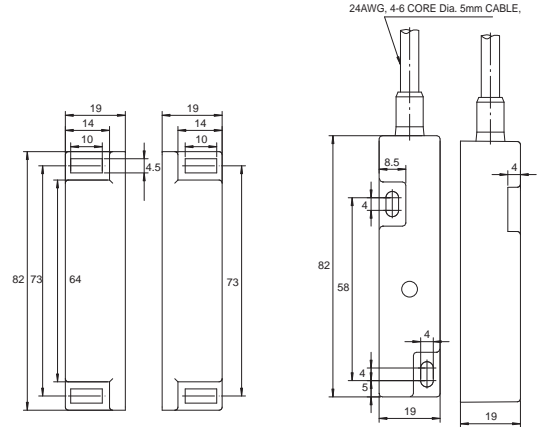
\* Dimensions of the actuators are the same as switches except without cable

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



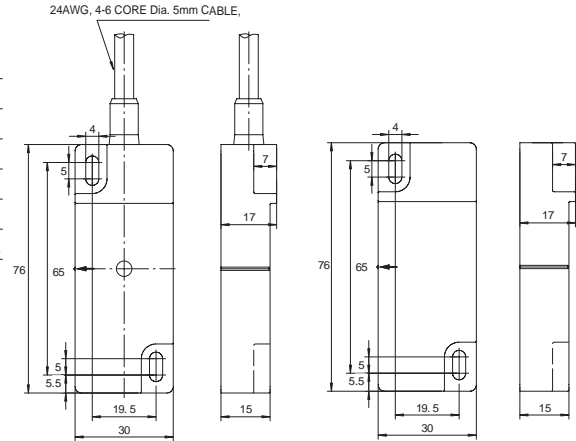
### Ordering table

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 <sub>e</sub> 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



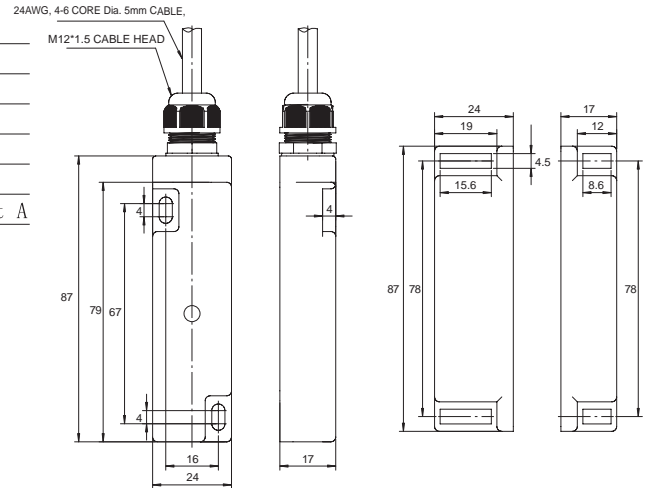
### Ordering table

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



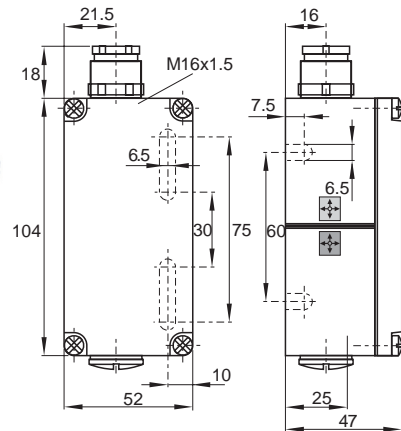
### Ordering table

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 Series Magnetic Safety Switches (IP67)

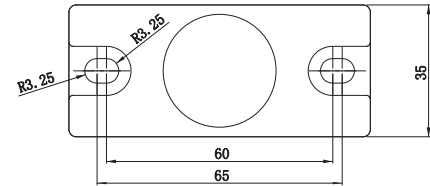
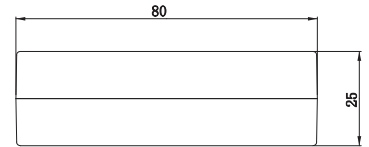
### Features

- Robust metal housing
- Large wiring compartment
- Bistable contacts available according to ISO14119
- 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/3A max. 120VA/W or 24Vdc/0.2A Max.
Dielectric Strength	> 600VAC (50/60Hz)
Switching time	Close: 0.3-1.5ms Open: 0.5 ms (max)
Actuating Speed	18m/s (max)
Switching Accuracy	+/- 0.25mm
Switching Distance	Up to 35mm
Method of operation	Magnetic, reed contact
Mech. life	100 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 [mm]	Circuit Diagram Gate Closed	Maximum Contact Ratings
MP50-A10-RZ	MP50-M-RZ	Bistable Switching S <sub>max</sub> :35mm		250Vac / 3Amps max. 120VA/W
MP50-A20-RZ	MP50-M-RZ	Bistable Switching S <sub>max</sub> :35mm		250Vac / 3Amps max. 120VA/W
MP50-A11-RZ	MP50-M-RZ	Bistable Switching S <sub>max</sub> :35mm		250Vac / 3Amps max. 120VA/W
MP50-A02	MP50-M	S <sub>on</sub> :10mm S <sub>off</sub> : 35mm		250Vac / 3Amps max. 120VA/W
MP50-A20	MP50-M	S <sub>on</sub> :10mm S <sub>off</sub> : 35mm		250Vac / 3Amps max. 120VA/W
MP50-A11	MP50-M	S <sub>on</sub> :10mm S <sub>off</sub> : 35mm		250Vac / 3Amps max. 120VA/W
MP50-D02	MP50-M	S <sub>on</sub> :10mm S <sub>off</sub> : 35mm		24Vdc/0.2A Max.