

Manufactured from Stainless Steel, Bulgin's extensive range of **vandal resistant security switches** are designed with a **high resistance** to wear and tear, corrosion and harsh use in potentially **hostile environments** such as access control applications.

- Front and rear panel mounted versions
- Vandal switches available in prominent, domed and low profile
- Various switching options such as latching, push on - push off, action.
- IP66, 68 front panel sealing options
- Dot and ring LED illuminated versions
- Illumination voltages 6, 12 and 24V sources,
- Variety of illumination colours and are now available with front and rear of panel sealing options.





H8300RP - - -

### Key Features

- Momentary or latching action
- Ratings up to 12(12) @ 250Vac
- Single and double Contacts
- Stainless steel button & bezel
- Vandal resistant construction
- Choice of body styles
- 19.2mm or 22.5mm mounting holes
- Front panel sealed to IP66
- Raised, flat or domed actuator options

### Approvals and specifications

⚡ 12 A GP, 250 Vac, T85  
 13 A GP, 250 Vac, T85  
 1 hp, 250 Vac, T85, 6E3/1E4

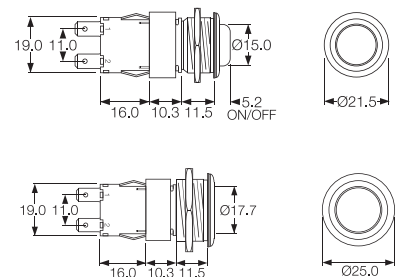
⚡ 12A 250Vac DP, 13A 250Vac SP  
 250Vac 1hp, 125Vac 1/2hp  
 UL 85°C, file E45221

In house test:  
 10(10)A 250Vac—Indicative rating only

3mm contact gap.

### Dimensions

8300RP (H terminals shown)



Terminal	Function	Actuator	Body Code
<p><b>C</b> </p> <p><b>H</b> </p>	<p><b>8300</b>                      (alternate)                      Single Contact                      ON - OFF </p>	<p><b>R</b>                      (for P body only)                      Raised top (stainless steel)  </p>	
<p><b>K</b> </p> <p><b>T</b> </p>	<p><b>8301</b>                      (momentary ON)                      Single Contact                      ON - OFF </p>		
<p><b>V</b> </p> <p><b>X</b> </p>	<p><b>8350</b>                      (alternate)                      Double Contact                      ON - OFF </p> <p><b>8351</b>                      (momentary ON)                      Double Contact                      ON - OFF </p>	<p><b>V</b>                      Flat top (stainless steel)  </p>	<p><b>P</b>                      (for R actuator only)                      Stainless steel, Soft profile bezel  </p> <p><b>M</b>                      Stainless steel  </p>

Switches  
**0911 Vandal Resistant Switches**

Designed to IP66



C0911VA - - -

**Key Features**

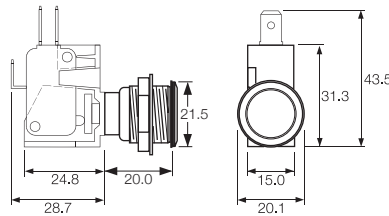
- Snap action switches
- Ratings up to 16A, 250Vac
- Round and rectangular buttons
- Single Contact C/O Switch

**Approvals and specifications**


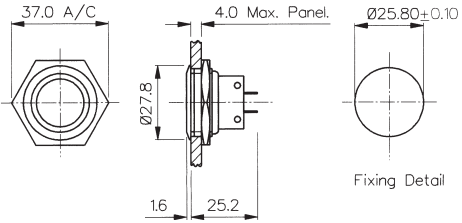

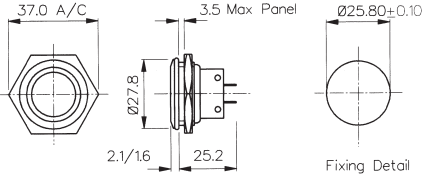
Approvals apply to switch mechanism only.  
 μ contact gap.

**Dimensions**

C0911VA



Terminal	Function	Actuator	Body Code
	<p><b>0911</b>                      (momentary)                      ON - ON</p>	<p><b>V</b> Flat top (stainless steel)</p>	<p><b>A</b></p> <p>Stainless steel                      Chamfer profile bezel</p> <p>Panel cut-out                      Panel thickness up to 8.0mm</p>

<p>Front Panel Mounting</p>  <p>MP0027</p>	<ul style="list-style-type: none"> <li>○ 28mm diameter</li> <li>○ S.P.C.O. Microswitch</li> <li>○ 5A, 250Vac</li> </ul>	 <p>37.0 A/C, 4.0 Max. Panel, Ø25.80±0.10, Ø27.8, 16, 25.2, Fixing Detail</p>
<p>Front Panel Mounting</p>  <p>MP0038 Sealed to IP66</p>	<ul style="list-style-type: none"> <li>○ Front Panel Sealed to IP66</li> <li>○ 28mm diameter</li> <li>○ S.P.C.O. Microswitch</li> <li>○ 5A, 250Vac</li> </ul>	 <p>37.0 A/C, 3.5 Max. Panel, Ø25.80±0.10, Ø27.8, 2.1/16, 25.2, Fixing Detail</p>

Specifications	MP0027	MP0038
Terminations:	Solder Tags	Solder Tags
Switching:	S.P.C.O. Momentary Action (Microswitch)	S.P.C.O. Momentary Action (Microswitch)
Max. Rating:	5A, 250Vac 2A, 28Vdc	5A, 250Vac 2A, 28Vdc
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ
Dielectric Strength:	>2.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C
Sealing (Front of panel only):		Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)
Operations		
Mechanical:	1,000,000 (min)	1,000,000 (min)
Electrical:	35,000 (min)	35,000 (min)
Operating Pressure:	7.5N (typ)	12.5N (typ)
Rear Nut Fixing Torque:	2.5Nm	1.13Nm
Materials		
Mouldings:	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Tin Plated	Brass, Tin Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Fine Silver	Fine Silver
Thread size:	1.0" x 26TPI	1.0" x 26TPI
<b>RoHS</b>	Compliant	Compliant

Switches  
**Stainless Steel Low Profile Vandal Resistant**

Momentary

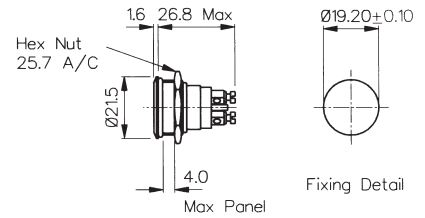


Front Panel Mounting



MP0037  
Sealed to IP68

- Front Panel Sealed to IP68
- 21.5mm diameter
- S.P. Push to Make
- 1A, 50Vac/dc
- Industry Standard Size

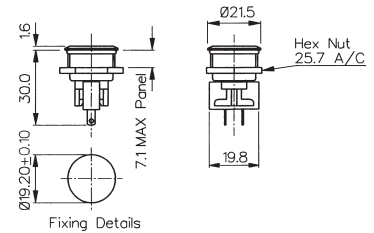


Front Panel Mounting



MP0031  
Sealed to IP66

- Front Panel Sealed to IP66
- 21.5mm diameter
- S.P.C.O. Microswitch
- 5A, 250Vac



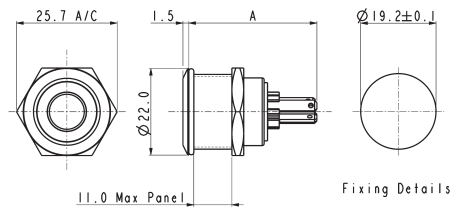
Specifications	MP0037	MP0031
Terminations:	Screw Terminals	Solder Tags
Switching:	S.P. Push to make Momentary action	S.P.C.O. Momentary Action (Microswitch)
Max. Rating:	1A, 50Vac/dc	5A, 250Vac 2A, 28Vdc
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>5</sup> MΩ	>10 <sup>3</sup> MΩ
Dielectric Strength:	>1.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C
Sealing (Front of panel only):	Protection Classification: IP68 EN 60529:1992+A2:2013 (Micro switch not sealed)	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)
IP68 rating 10M for 2 weeks test:	Passed	
Operations		
Mechanical:	1,000,000 (min)	1,000,000 (min)
Electrical:	30,000 (min)	35,000 (min)
Operating Pressure:	10N (typ)	4.7N (typ)
Rear Nut Fixing Torque:	0.57Nm	0.57Nm
Materials		
Mouldings:	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Silver Plated	Brass, Tin Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Brass, Silver Plated, Silver	Fine Silver
Thread size:	0.747" x 26TPI	0.747" x 26TPI
RoHS	Compliant	Compliant

Front Panel Mounting



MPI001- front panel seal to IP66

- Dot illumination
- 22mm diameter
- Single Contact push to make
- 50mA, 24Vdc contact rating
- Red, Green, Amber, Blue, White or dual colour illumination
- Bright daylight LEDs
- Independent LED terminals
- Front panel seal to IP66
- Integral supply resistors
- TVS protection



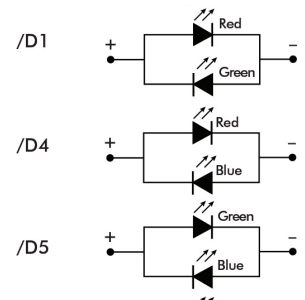
MPI001/TAG/COL A = 32.7  
 MPI001/TERM/COL A = 31.0 MAX.

**Specifications**

**MPI001/Termination/Colour/Voltage**

<p>Illumination style: Dot</p> <p>Terminations: /28 (2.8mm tabs), /TERM or /TE (screw terminals)</p> <p>Switching: Single Contact, push to make, tactile (momentary action)</p> <p>Max. Switch Rating: 50mA, 24Vdc</p> <p>LEDs (ratings @ 20mA)</p> <p>Part No. /RD /GN /AM /BL /WH /D1 /D4 /D5</p> <p>Colours Red Green Amber Blue White Red/Green Red/Blue Green/Blue</p> <p>Luminous Intensity 900mcd 2500mcd 900mcd 1500mcd 900mcd 2500mcd/5000mcd 2000mcd/850mcd 4000mcd/2000mcd</p> <p>Forward Voltage 1.85V 3.5V 2.3V 3.5V 3.6V 2.05V/3.6V 2.0V/3.6V 3.6V/3.6V</p> <p>Forward Current 20mA 20mA 20mA 20mA 20mA 20mA 20mA</p> <p>Moulding Colour Red Green Amber Blue White Black Black Black</p> <p>Illumination Voltage: /no suffix No resistor fitted. <b>An appropriate resistor must be series connected by the user.</b> Voltages as above.</p> <p>/6 6Vdc</p> <p>/12 12Vdc</p> <p>/24 24Vdc</p> <p>Contact Resistance: &lt;100mΩ</p> <p>Insulation Resistance: &gt;10<sup>3</sup> MΩ</p> <p>Dielectric Strength: Contact to Panel &gt;2.0kV Contact to Contact 1500</p> <p>Operating Temp. Range: -30°C to +70°C</p> <p>Sealing (Front of panel only): Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)</p> <p>Operations</p> <p>Mechanical: 750,000 (min)</p> <p>Electrical: 35,000 (min)</p> <p>Operating Pressure: 12N</p> <p>Rear Nut Fixing Torque: 0.57Nm</p> <p>Screw Terminal Torque 0.2Nm Max</p> <p>Materials</p> <p>Switch assembly: UL94V-0 rated Polyamide (Nylon)</p> <p>Tags: Copper Alloy</p> <p>Terminals: Copper Alloy</p> <p>Switch Body &amp; Button: Stainless Steel</p> <p>Lens and Lens Body: Polycarbonate</p> <p>O ring: Nitrile</p> <p>Internal seal: Silicone</p> <p>Contact Plate: Gold Plated</p> <p>Thread size: 18.97mm x 26TPI</p>	<p>Compliant</p>
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Dual Colour LED Configuration

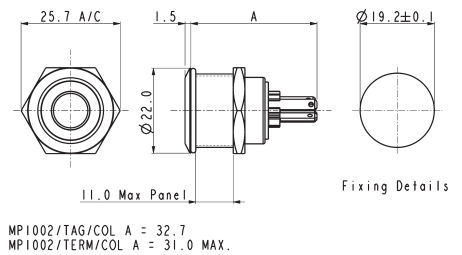


Front Panel Mounting



MPI002- front panel seal to IP66

- Ring illumination
- 22mm diameter
- Single Contact push to make
- 50mA, 24Vdc contact rating
- Red, Green, Amber, Blue, White or dual colour illumination
- Bright daylight LEDs
- Independent LED terminals
- Front panel seal to IP66
- Integral supply resistors
- TVS protection



**Specifications**

**MPI002/Termination/Colour/Voltage**

Illumination style: Ring  
 Terminations: /28 (2.8mm tabs), /TERM or /TE (screw terminals)  
 Switching: Single Contact, push to make, tactile (momentary action)  
 Max. Switch Rating: 50mA, 24Vdc

LEDs (ratings @ 20mA)

Part No.	/RD	/GN	/AM	/BL	/WH	/D1	/D4	/D5	/D6
Colours	Red	Green	Amber	Blue	White	Red/Green	Red/Blue	Green/Blue	Green/White
Luminous Intensity	900mcd	2500mcd	900mcd	1500mcd	900mcd	2500mcd/5000mcd	2000mcd/850mcd	4000mcd/2000mcd	178mcd/450mcd
Forward Voltage	1.85V	3.5V	2.3V	3.5V	3.6V	2.05V/3.6V	2.0V/3.6V	3.6V/3.6V	3.4V/3.2V
Forward Current	20mA	20mA	20mA	20mA	20mA	20mA	20mA	20mA	20mA
Moulding Colour	Red	Green	Amber	Blue	White	Black	Black	Black	Black

Illumination Voltage: /no suffix No resistor fitted. **An appropriate resistor must be series connected by the user.** Voltages as above.  
 /6 6Vdc  
 /12 12Vdc  
 /24 24Vdc

Contact Resistance: <100mΩ  
 Insulation Resistance: >10<sup>3</sup> MΩ  
 Dielectric Strength: Contact to Panel >2.0kV  
 Contact to Contact 1500

Operating Temp. Range: -30°C to +70°C  
 Sealing (Front of panel only): Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)  
 Operations

Electrical: 35,000 (min)

Operating Pressure: 12N  
 Rear Nut Fixing Torque: 0.57Nm

Screw Terminal Torque 0.2Nm Max

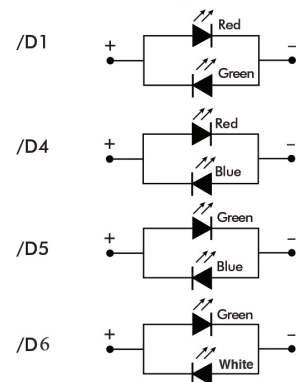
Materials

Switch assembly: UL94V-0 rated Polyamide (Nylon)  
 Tags: Copper Alloy  
 Terminals: Copper Alloy  
 Switch Body & Button: Stainless Steel  
 Lens and Lens Body: Polycarbonate  
 O ring: Nitrile  
 Internal seal: Silicone  
 Contact Plate: Gold Plated  
 Thread size: 18.97mm x 26TPI



Compliant

Dual Colour LED Configuration



# Switches Stainless Steel Illuminated Vandal Resistant

Rear of panel IP66 seal

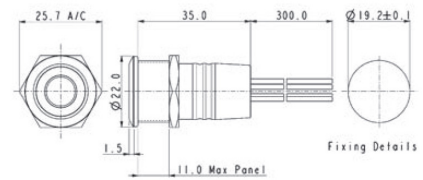


## Rear Panel Sealed - Flying Leads



MPI002/FL/xx/x

- Dot or ring illumination
- 22mm diameter
- Single Contact push to make
- 50mA, 24Vdc contact rating
- Red, Green, Amber, Blue, White or dual colour illumination
- Bright daylight LEDs
- Independent LED terminals
- Front and rear panel seal to IP66
- Integral supply resistors
- TVS protection



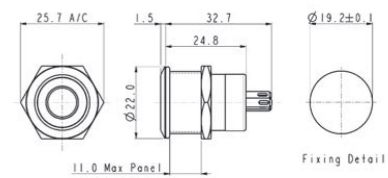
Flying lead colours: LED: red + and black -. Switch contacts: white.

## Rear Panel Sealed - Solder Tags



MPI001/RP/xx/x

- Dot or ring illumination
- 22mm diameter
- Single Contact push to make
- 50mA, 24Vdc contact rating
- Red, Green, Amber, Blue & White illumination
- Bright daylight LEDs
- Independent LED terminals
- Front and rear panel seal to IP66
- Solder tag termination
- TVS protection



LED terminals marked + and -. Switch terminals unmarked.

Specifications	MPI001/Termination/Colour/Voltage	MPI002/Termination/Colour/Voltage
<b>Illumination style:</b> <b>Terminations:</b> <b>Switching:</b> <b>Max. Switch Rating:</b> <b>LEDs (ratings @ 20mA)</b> Part No. Colours Luminous Intensity Forward Voltage Forward Current Moulding Colour	Dot /FL (Flying leads) /RP (Solder tags) Single Contact, push to make, tactile (momentary action) 50mA, 24Vdc /RD /GN /AM /BL /WH Red Green Amber Blue White 900mcd 2500mcd 900mcd 1500mcd 900mcd 1.85V 3.5V 2.3V 3.5V 3.6V 20mA 20mA 20mA 20mA 20mA Red Green Amber Blue White	Ring /FL (Flying leads) /RP (Solder tags) Single Contact, push to make, tactile (momentary action) 50mA, 24Vdc /RD /GN /AM /BL /WH Red Green Amber Blue White 900mcd 2500mcd 900mcd 1500mcd 900mcd 1.85V 3.5V 2.3V 3.5V 3.6V 20mA 20mA 20mA 20mA 20mA Red Green Amber Blue White
<b>Illumination Voltage:</b> <b>Contact Resistance:</b> <b>Insulation Resistance:</b> <b>Dielectric Strength:</b>	/no suffix No resistor fitted. An appropriate resistor must be series connected by the user. Voltages as above. /6 6Vdc /12 12Vdc /24 24Vdc <100mΩ >10 <sup>9</sup> MΩ Contact to Panel >2.0kV Contact to Contact 1500	/no suffix No resistor fitted. An appropriate resistor must be series connected by the user. Voltages as above. /6 6Vdc /12 12Vdc /24 24Vdc <100mΩ >10 <sup>9</sup> MΩ Contact to Panel >2.0kV Contact to Contact 1500
<b>Operating Temp. Range:</b> <b>Sealing (Front of panel only):</b> <b>Operations</b> Mechanical: Electrical:	-30°C to +70°C Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed) 750,000 (min) 35,000 (min)	-30°C to +70°C Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed) 35,000 (min)
<b>Operating Pressure:</b> <b>Rear Nut Fixing Torque:</b> <b>Materials</b> Switch assembly: Tags: Terminals: Switch Body & Button: Lens and Lens Body: O ring: Internal seal: Contact Plate: Thread size:	12N 0.57Nm UL94V-0 rated Polyamide (Nylon) Copper Alloy Copper Alloy Stainless Steel Polycarbonate Nitrile Silicone Gold Plated 18.97mm x 26TPI	12N 0.57Nm UL94V-0 rated Polyamide (Nylon) Copper Alloy Copper Alloy Stainless Steel Polycarbonate Nitrile Silicone Gold Plated 18.97mm x 26TPI
	Compliant	Compliant

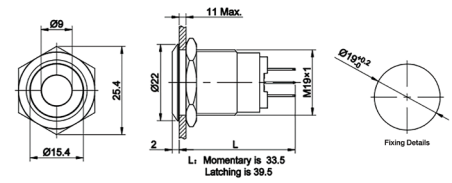


Low Profile

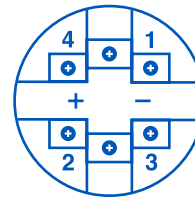


MPI005

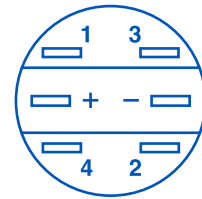
- 22mm bezel diameter
- 19.2mm ± 0.2mm fixing hole diameter
- S.P.C.O



1, 2 are normally closed (NC)  
 3, 4 are normally opened (NO)  
 +, - are lamp terminals, the standard LED terminals have no difference of anode and cathode.



Screw Layout



Plug Layout

Specifications	MPI005/Actuator/Terminal/Function/Material/Colour/Voltage
Terminations:	Plug Terminal or Screw Terminal
Switching:	S.P.C.O Momentary Action and Latching
Sealing:	IP65 (Momentary variants can be made to IP67 upon request)
Max. Rating:	5A @ 12VDC or 24 VDC 5A @ 125VAC 3A @ 250 VAC
Contact Resistance:	50mΩ max. @ 1A, 2V
Insulation Resistance:	>1000 MΩ @ 500Vdc
Dielectric Strength:	> 2.0kVac
Operating Temp. Range:	-25°C to +55°C
Operations	
Mechanical:	1,000,000 (min)
Electrical:	50,000 (min)
Rear Nut Fixing Torque:	0.8Nm
Materials	
Mouldings:	Polycarbonate
Tags/Terminations:	Brass, Gold Plated
Switch Body & Button:	Stainless Steel / Aluminium Alloy
Contacts:	Silver
<b>RoHS</b>	Compliant

MPI	/	005	/	X	/	X	/	X	/	X	/	X		
<b>Series</b>		<b>Type</b>		<b>Actuator Type</b>		<b>Terminal</b>		<b>Switching Type</b>		<b>Material</b>		<b>Illumination</b>		<b>Voltage</b>
<b>19mm Metal Push Button</b>		19mm Illuminated AV Switch		<b>D</b> = Dot Illumination <b>R</b> = Ring <b>P</b> = Illuminated Power <b>O</b> = Power Symbol / Ring		<b>28</b> = 2.8mm Plug Terminal <b>TE</b> = Screw Terminal		<b>M</b> = Momentary <b>L</b> = Latching		<b>S</b> = Stainless Steel <b>A</b> = Black Anodized Aluminum		<b>BL</b> <b>GN</b> <b>RD</b> <b>AM</b> <b>WH</b>  <b>Others on request</b>		<b>12</b> = 12VAC  Others Available on request

**Examples:**

**MPI005/D/28/L/S/BL/12** = 19mm Metal Push Button, Dot Illumination, 2.8mm Plug Terminal, Latching, Stainless Steel, Blue, 12 Volt

**Note:**

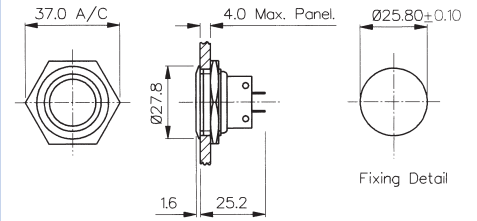
Power Symbol / Ring not available in black anodized aluminum

Front Panel Mounting



**MPB038**  
Sealed to IP66

- Front Panel Sealed to IP66
- 28mm diameter
- S.P.C.O. Microswitch
- 5A, 250Vac

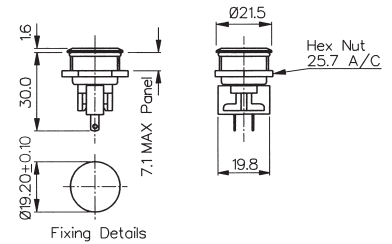


Front Panel Mounting

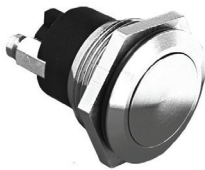


**MPB031**  
Sealed to IP66

- Front Panel Sealed to IP66
- 21mm diameter
- S.P.C.O. Microswitch
- 5A, 250Vac

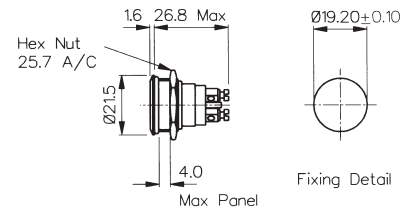


Front Panel Mounting



**MPB037**  
Sealed to IP68

- Front Panel Sealed to IP68
- 21.5mm diameter
- S.P. Push to Make
- 1A, 50Vac/dc



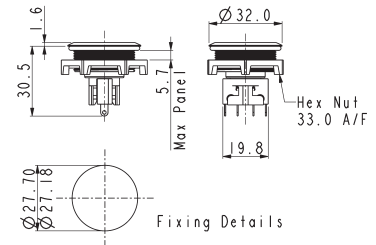
Specifications	MPB038	MPB031	MPB037
Terminations:	Solder Tags	Solder Tags	Screw Terminals
Switching:	S.P.C.O. Momentary Action (Microswitch)	S.P.C.O. Momentary Action (Microswitch)	S.P. Push to make Momentary action
Max. Rating:	5A, 250Vac. 2A, 28Vdc	5A, 250Vac. 2A, 28Vdc	1A, 50Vac/dc
Contact Resistance:	<10mΩ	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ	>10 <sup>5</sup> MΩ
Dielectric Strength:	>2.0kVac	>2.0kVac	>1.0kVac
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Sealing (Front of panel only):	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)	Protection Classification: IP68 EN60529-1:1992 + A2:2013. (Micro switch not sealed) (10m for 2 weeks)
Operations			
Mechanical:	1,000,000 (min)	1,000,000 (min)	1,000,000 (min)
Electrical:	35,000 (min)	35,000 (min)	30,000 (min)
Operating Pressure:	12.5N (typ)	4.7N (typ)	7.5N (typ)
Rear Nut Fixing Torque:	1.13Nm	0.57Nm	0.57Nm
Materials			
Mouldings:	Glass Filled Nylon	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Tin Plated	Brass, Tin Plated	Brass, Tin Plated
Switch Body & Button:	Brass	Brass	Brass
Contacts:	Fine Silver	Fine Silver	Brass, Silver Plated, Silver
Thread size:	1.0" x 26TPI	0.747" x 26TPI	0.747" x 26TPI
<b>RoHS</b>	Compliant	Compliant	Compliant

## Front Panel Mounting - Low Profile



MP0050

- Front Panel Sealed to IP68
- Flush button
- 32.0mm diameter
- S.P.C.O. switching
- Momentary action
- 5A, 250Vac

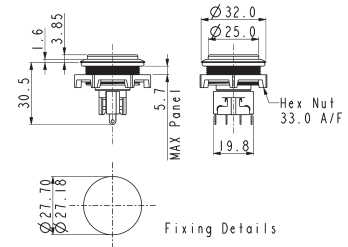


## Front Panel Mounting - Protruding Profile



MP0050/2

- Front Panel Sealed to IP68
- Protruding button
- 32.0mm diameter
- S.P.C.O. switching
- Momentary action
- 5A, 250Vac



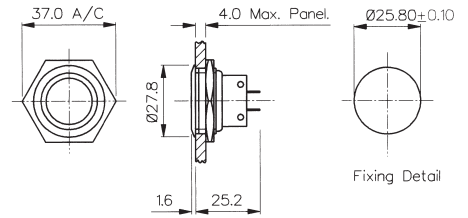
Specifications	MP0050	MP0050/2
Terminations:	Solder Tags	Solder Tags
Switching:	S.P.C.O. Momentary Action (Microswitch)	S.P.C.O. Momentary Action (Microswitch)
Max. Rating:	5A, 250Vac. 2A, 28Vdc	5A, 250Vac. 2A, 28Vdc
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ
Dielectric Strength:	>2.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C
Sealing (Front of panel only):	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)
Operations		
Mechanical:	1,000,000 (min)	1,000,000 (min)
Electrical:	35,000 (min)	35,000 (min)
Operating Pressure:	4.7Nm	4.7N (typ)
Rear Nut Fixing Torque:	0.57Nm	0.57Nm
Materials		
Mouldings:	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Tin Plated	Brass, Tin Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Fine Silver	Fine Silver
Thread size:	M27 x 1.0-6H	M27 x 1.0-6H
RoHS	Compliant	Compliant

Front Panel Mounting



MP0027/3

- 28mm diameter
- Domed Profile
- S.P.C.O. Microswitch
- 5A, 250Vac

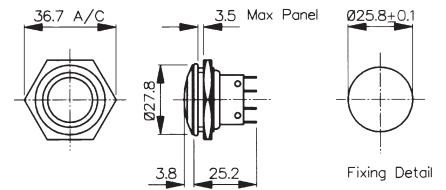


Front Panel Mounting



MP0038/3  
Sealed to IP66

- Front Panel Sealed to IP66
- 28mm diameter
- Domed Profile
- S.P.C.O. Microswitch
- 5A, 250Vac



Specifications	MP0027/3	MP0038/3
Terminations:	Solder Tags	Solder Tags
Switching:	S.P.C.O. Momentary Action (Microswitch)	S.P.C.O. Momentary Action (Microswitch)
Max. Rating:	5A, 250Vac. 2A, 28Vdc	5A, 250Vac. 2A, 28Vdc
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ
Dielectric Strength:	>2.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C
Sealing (Front of panel only):		Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)
Operations		
Mechanical:	1,000,000 (min)	1,000,000 (min)
Electrical:	35,000 (min)	35,000 (min)
Operating Pressure:	7.5N (typ)	12.5N (typ)
Rear Nut Fixing Torque:	2.5Nm	1.13Nm
Materials		
Mouldings:	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Tin Plated	Brass, Tin Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Fine Silver	Fine Silver
Thread size:	1.0" x 26TPI	0.747" x 26TPI
RoHS	Compliant	Compliant

Switches  
**Stainless Steel Domed Vandal Resistant**

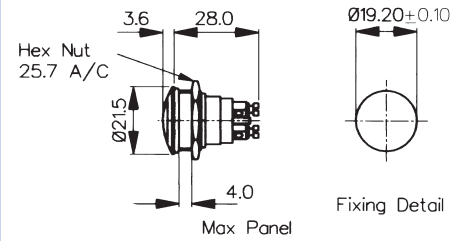


Front Panel Mounting



MP0037/3  
Sealed to IP68

- Front Panel Sealed to IP68
- 21.5mm diameter
- Domed Profile
- S.P. Push to Make
- 1A, 50Vac/dc

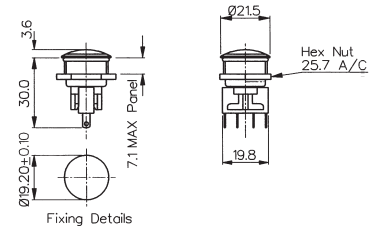


Front Panel Mounting



MP0031/3  
Sealed to IP66

- Front Panel Sealed to IP66
- 21.5mm diameter
- Domed Profile
- S.P.C.O. Microswitch
- 5A, 250Vac



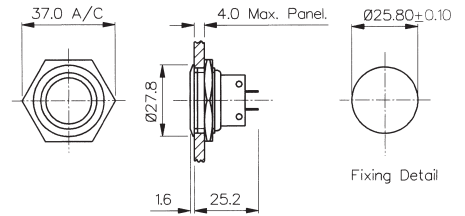
Specifications	MP0037/3	MP0031/3
Terminations:	Screw Terminals	Solder Tags
Switching:	S.P. Push to make Momentary action	S.P.C.O. Momentary Action (Microswitch)
Max. Rating:	1A, 50Vac/dc	5A, 250Vac. 2A, 28Vdc
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>5</sup> MΩ	>10 <sup>3</sup> MΩ
Dielectric Strength:	>1.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C
Sealing (Front of panel only):	Protection Classification: IP68 EN60529-1:1992 + A2:2013. (Micro switch not sealed) (10m for 2 weeks)	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)
Operations		
Mechanical:	1,000,000 (min)	1,000,000 (min)
Electrical:	35,000 (min)	35,000 (min)
Operating Pressure:	7.5N (typ)	4.7N (typ)
Rear Nut Fixing Torque:	2.5Nm	0.57Nm
Materials		
Mouldings:	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Tin Plated	Brass, Tin Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Brass, Silver Plated, Silver	Fine Silver
Thread size:	0.747" x 26TPI	0.747" x 26TPI
RoHS	Compliant	Compliant

Front Panel Mounting



MP0027/2

- 28mm diameter
- Prominent Button
- S.P.C.O. Microswitch
- 5A, 250Vac

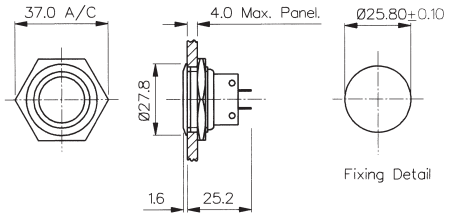


Front Panel Mounting



MP0038/2  
Sealed to IP66

- Front Panel Sealed to IP66
- 28mm diameter
- Prominent Button
- S.P.C.O. Microswitch
- 5A, 250Vac



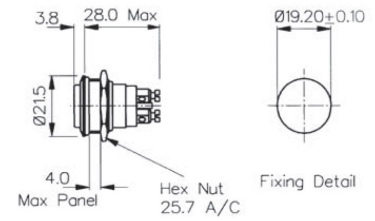
Specifications	MP0027/2	MP0038/2
Terminations:	Solder Tags	Solder Tags
Switching:	S.P.C.O. Momentary Action (Microswitch)	S.P.C.O. Momentary Action (Microswitch)
Max. Rating:	5A, 250Vac 2A, 28Vdc	5A, 250Vac. 2A, 28Vdc
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ
Dielectric Strength:	>2.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C
Sealing (Front of panel only):		Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)
Operations		
Mechanical:	1,000,000 (min)	1,000,000 (min)
Electrical:	35,000 (min)	35,000 (min)
Operating Pressure:	7.5N (typ)	12.5N (typ)
Rear Nut Fixing Torque:	2.5Nm	1.13Nm
Materials		
Mouldings:	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Tin Plated	Brass, Tin Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Fine Silver	Fine Silver
Thread size:	1.0" x 26TPI	1.0" x 26TPI
<b>RoHS</b>	Compliant	Compliant

Front Panel Mounting



MP0037/2  
Sealed to IP68

- Front Panel Sealed to IP68
- 21.5mm diameter
- Prominent Button
- S.P. Push to Make
- 1A, 50Vac/dc

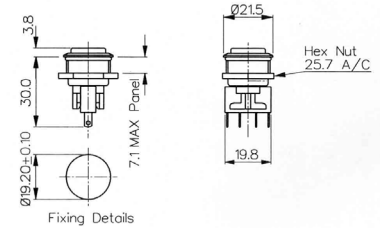


Front Panel Mounting



MP0031/2  
Sealed to IP66

- Front Panel Sealed to IP66
- 21.5mm diameter
- Prominent Button
- S.P.C.O. Microswitch
- 5A, 250Vac



Specifications	MP0037/2	MP0031/2
Terminations:	Screw Terminals	Solder Tags
Switching:	S.P. Push to make Slow momentary action	S.P.C.O. Momentary Action (Microswitch)
Max. Rating:	1A, 50Vac/dc	5A, 250Vac. 2A, 28Vdc
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>5</sup> MΩ	>10 <sup>3</sup> MΩ
Dielectric Strength:	>1.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C
Sealing (Front of panel only):	Protection Classification: IP68 EN60529-1:1992 + A2:2013. (Micro switch not sealed) (10m for 2 weeks)	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)
Operations		
Mechanical:	1,000,000 (min)	1,000,000 (min)
Electrical:	35,000 (min)	35,000 (min)
Operating Pressure:	7.5N (typ)	4.7N (typ)
Rear Nut Fixing Torque:	0.57Nm	0.57Nm
Materials		
Mouldings:	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Tin Plated	Brass, Tin Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Brass, Silver Plated, Silver	Fine Silver
Thread size:	0.747" x 26TPI	0.747" x 26TPI
<b>RoHS</b>	Compliant	Compliant

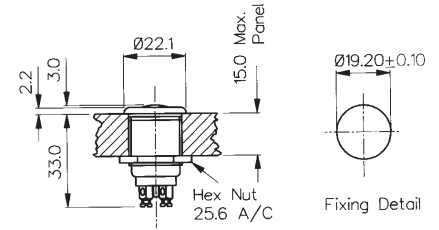


Front Panel Mounting



MP0013  
MP0033

- Proud Fitting
- 22mm diameter
- S.P. Push to Make
- 1A, 50V
- Brass, Chrome Plated Body, Stainless Steel Button
- MP0033 Internally Sealed

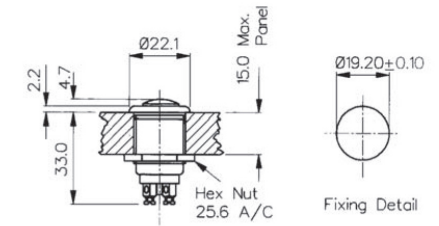


Front Panel Mounting



MP0013/2  
MP0033/2

- Prominent Button
- 22mm diameter
- S.P. Push to Make
- 1A, 50V
- Brass, Chrome Plated Body, Stainless Steel Button
- MP0033/2 Internally Sealed



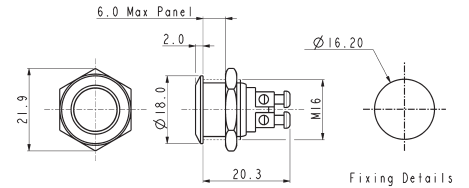
Specifications	MP0013, MP0033	MP0013/2, MP0033/2
Terminations:	Screw Terminals	Screw Terminals
Switching:	S.P. Push to make Slow momentary action	S.P. Push to make Slow momentary action
Max. Rating:	1A, 50Vac/dc	1A, 50Vac/dc
Contact Resistance:	<15mΩ	<15mΩ
Insulation Resistance:	>10 <sup>4</sup> MΩ	>10 <sup>4</sup> MΩ
Dielectric Strength:	>2.5kVac	>2.5kVac
Operating Temp. Range:	-20°C to +85°C	-20°C to +85°C
Sealing (Front of panel only):	MP0033 only - internally sealed against ingress of water and dust. (IP68 Internal Testing)	MP0033/2 only - internally sealed against ingress of water and dust. (IP68 Internal Testing)
Materials		
Mouldings:	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Silver Plated	Brass, Silver Plated
Switch Body & Button:	Body: Brass, Chrome Plated Button: Stainless Steel	Body: Brass, Chrome Plated Button: Stainless Steel
Contacts:	Copper, Silver Plated	Copper, Silver Plated
Thread Size:	0.747" x 26TPI	0.747" x 26TPI
<b>RoHS</b>	Compliant	Compliant

Flush Profile



MP0042/1

- ⊕ 18mm bezel diameter
- ⊕ 16mm panel hole
- ⊕ S.P. Push to make
- ⊕ Polished finish
- ⊕ 2A, 36Vdc

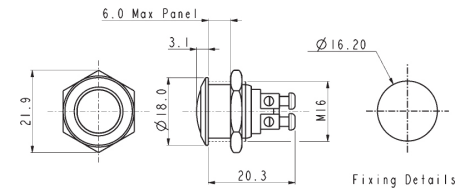


Domed Profile



MP0042/2

- ⊕ 18mm bezel diameter
- ⊕ 16mm panel hole
- ⊕ S.P. Push to make
- ⊕ Polished finish
- ⊕ 2A, 36Vdc

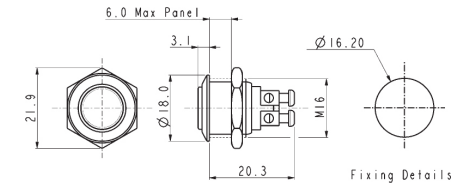


Prominent Button



MP0042/3

- ⊕ 18mm bezel diameter
- ⊕ 16mm panel hole
- ⊕ S.P. Push to make
- ⊕ Polished finish
- ⊕ 2A, 36Vdc



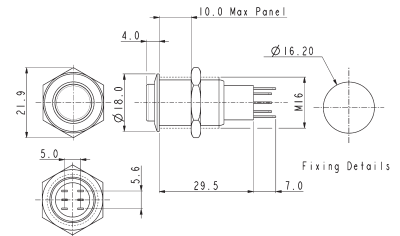
Specifications	MP0042/1	MP0042/2	MP0042/3
Terminations:	Screw Terminals	Screw Terminals	Screw Terminals
Switching:	S.P. Push to make	S.P. Push to make	S.P. Push to make
Max. Rating:	2A, 36Vdc	2A, 36Vdc	2A, 36Vdc
Contact Resistance:	50mΩ at 1A, 2V	50mΩ at 1A, 2V	50mΩ at 1A, 2V
Insulation Resistance:	>10 <sup>3</sup> MΩ @ 500Vdc	>10 <sup>3</sup> MΩ @ 500Vdc	>10 <sup>3</sup> MΩ @ 500Vdc
Dielectric Strength:	>2.0kVac	>2.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +55°C	-20°C to +55°C	-20°C to +55°C
Operations			
Mechanical:	1,000,000 (min)	1,000,000 (min)	1,000,000 (min)
Electrical:	100,000 (min)	100,000 (min)	100,000 (min)
Rear Nut Fixing Torque:	12Nm	12Nm	12Nm
Materials			
Mouldings:	Nylon	Nylon	Nylon
Tags/Terminations:	Brass, Silver Plated	Brass, Silver Plated	Brass, Silver Plated
Switch Body & Button:	Stainless Steel (Polished)	Stainless Steel (Polished)	Stainless Steel (Polished)
Contacts:	Silver	Silver	Silver
Thread size:	Gold Plated Brass version available	Gold Plated Brass version available	Gold Plated Brass version available
Sealing:	IP65	IP65	IP65
Impact Rating:	IK08	IK08	IK08
<b>RoHS</b>	Compliant	Compliant	Compliant

Low Profile



MP0045/1D

- 18mm bezel diameter
- 16mm fixing hole diameter
- D.P.C.O
- 1A, 110Vac & 0.5A, 220Vac
- 1A, 12Vdc & 1A, 24Vdc

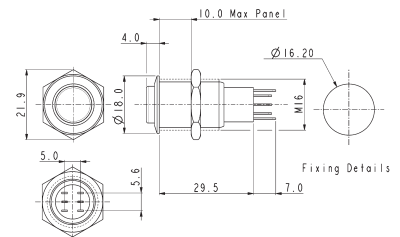


Prominent Button



MP0045/3D

- 18mm bezel diameter
- 16mm fixing hole diameter
- D.P.C.O
- 1A, 110Vac & 0.5A, 220Vac
- 1A, 12Vdc & 1A, 24Vdc

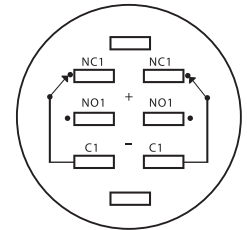


Specifications

MP0045/1D0NN000/Sealing

MP0045/3D0NN000/Sealing

Terminations:	Solder tags	Solder tags
Switching:	D.P.C.O Momentary Action	D.P.C.O Momentary Action
Sealing:	IP67 IP40	IP67 IP40
Part No.	/S BLANK	/S BLANK
Max. Rating:	1A, 110Vac & 0.5A, 220Vac 1A, 12Vdc & 1A, 24Vdc	1A, 110Vac & 0.5A, 220Vac 1A, 12Vdc & 1A, 24Vdc
Contact Resistance:	50mΩ max. @ 1A, 2V	50mΩ max. @ 1A, 2V
Insulation Resistance:	>10 <sup>3</sup> MΩ @ 500Vdc	>10 <sup>3</sup> MΩ @ 500Vdc
Dielectric Strength:	> 2.0kVac	> 2.0kVac
Operating Temp. Range:	-20°C to +55°C	-20°C to +55°C
Operations		
Mechanical:	200,000 (min)	200,000 (min)
Electrical:	30,000 (min)	30,000 (min)
Rear Nut Fixing Torque:	12Nm	12Nm
Materials		
Mouldings:	Nylon	Nylon
Tags/Terminations:	Brass, Silver Plated	Brass, Silver Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Silver	Silver
Variants:	Nickel Plated Brass version available Details on request	Nickel Plated Brass version available Details on request
RoHS	Compliant	Compliant



Contact Layout

Soldering Instructions:

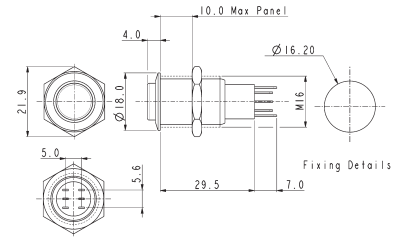
- Soldering time less than 3 seconds
- Do not push on the terminals
- Recommended cuspidal soldering iron. Temperature around 280°C

Low Profile



MP0045/1E

- 18mm bezel diameter
- 16mm fixing hole diameter
- D.P.C.O.
- 1A, 110Vac & 0.5A, 220Vac
- 1A, 12Vdc & 1A, 24Vdc

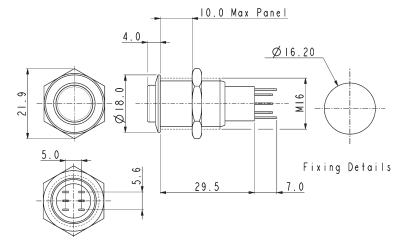


Prominent Button



MP0045/3E

- 18mm bezel diameter
- 16mm fixing hole diameter
- D.P.C.O.
- 1A, 110Vac & 0.5A, 220Vac
- 1A, 12Vdc & 1A, 24Vdc

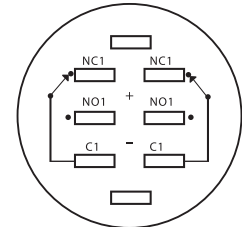


Specifications

MP0045/1E0NN000/Sealing

MP0045/3E0NN000/Sealing

Terminations:	Solder Tags	Solder Tags
Switching:	D.P.C.O. - Latching Action	D.P.C.O. - Latching Action
Sealing:	IP67 IP40	IP67 IP40
Part No.	/S BLANK	/S BLANK
Max. Rating:	1A, 110Vac & 0.5A, 220Vac 1A, 12Vdc & 1A, 24Vdc	1A, 110Vac & 0.5A, 220Vac 1A, 12Vdc & 1A, 24Vdc
Contact Resistance:	50mΩ max. @ 1A, 2V	50mΩ max. @ 1A, 2V
Insulation Resistance:	>10 <sup>3</sup> MΩ @ 500Vdc	>10 <sup>3</sup> MΩ @ 500Vdc
Dielectric Strength:	>2.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +55°C	-20°C to +55°C
Operations		
Mechanical:	200,000 (min)	200,000 (min)
Electrical:	30,000 (min)	30,000 (min)
Rear Nut Fixing Torque:	12Nm	12Nm
Materials		
Mouldings:	Nylon	Nylon
Tags/Terminations:	Brass, Tin Plated	Brass, Tin Plated
Switch Body & Button:	Stainless Steel (Polished)	Stainless Steel (Polished)
Contacts:	Silver	Silver
Thread size:	Nickel Plated Brass version Details on request	Nickel Plated Brass version Details on request
RoHS	Compliant	Compliant



Contact Layout

Soldering Instructions:

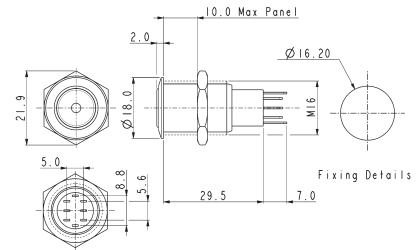
- Soldering time less than 3 seconds.
- Do not push on the terminals.
- Recommended cuspidal soldering iron. Temperature around 280°C.

Front Panel Mounting



MP0045/1D1

- Dot Illuminated
- 18mm bezel diameter
- D.P.C.O.
- 1A, 110Vac & 0.5A, 220Vac
- 1A, 12Vdc & 1A, 24Vdc
- Red, Green, Amber or Blue Illumination
- Separate LED Terminals

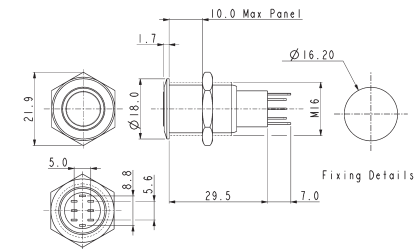


Front Panel Mounting



MP0045/1D2

- Ring Illuminated
- 18mm bezel diameter
- D.P.C.O.
- 1A, 110Vac & 0.5A, 220Vac
- 1A, 12Vdc & 1A, 24Vdc
- Red, Green, Amber or Blue Illumination
- Separate LED Terminals

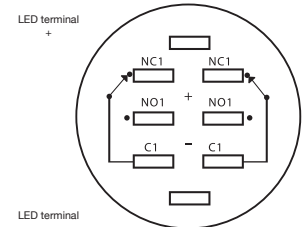


Specifications

MP0045/1D1/Colour/Voltage/Sealing

MP0045/1D2/Colour/Voltage/Sealing

Terminations:	Solder Tags				Solder Tags			
Illumination:	Dot				Ring			
Switching:	D.P.C.O. Momentary Action				D.P.C.O. Momentary Action			
Sealing:	IP67	IP40			IP67	IP40		
Part No.	/S	BLANK			/S	BLANK		
Max. Switch Rating:	1A, 110Vac & 0.5A, 220Vac 1A, 12Vdc & 1A, 24Vdc				1A, 110Vac & 0.5A, 220Vac 1A, 12Vdc & 1A, 24Vdc			
LEDs								
Colours	Red	Green	Amber	Blue	Red	Green	Amber	Blue
Part No.	/RD	/GN	/AM	/BL	/RD	/GN	/AM	/BL
Voltage	12Vdc	220Vdc			12Vdc	220Vdc		
Part No.	/012	/220			/012	/220		
Contact Resistance:	50mΩ max. @ 1A, 2Vdc				50mΩ max. @ 1A, 2Vdc			
Insulation Resistance:	>10 <sup>3</sup> MΩ @ 500Vac				>10 <sup>3</sup> MΩ @ 500Vac			
Dielectric Strength:	>2.0kVac				>2.0kVac			
Operating Temp. Range:	-20°C to +55°C				-20°C to +55°C			
Operations								
Mechanical:	200,000 (min)				200,000 (min)			
Electrical:	30,000 (min)				30,000 (min)			
Rear Nut Fixing Torque:	12Nm				12Nm			
Materials								
Mouldings:	Nylon				Nylon			
Tags:	Brass, Silver Plated				Brass, Silver Plated			
Switch Body & Button:	Stainless Steel (Polished)				Stainless Steel (Polished)			
Variants	Prominent Button, details on request				Prominent Button, details on request			
<b>RoHS</b>	Compliant				Compliant			



Contact Layout

Soldering Instructions:

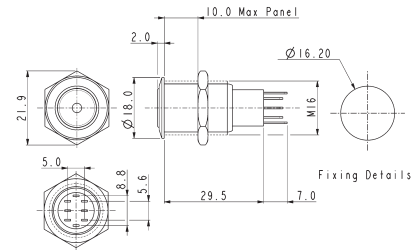
- Soldering time less than 3 seconds.
- Do not push on the terminals.
- Recommended cuspidal soldering iron. Temperature around 280°C.

Front Panel Mounting



MP0045/1E1

- Dot Illuminated
- 18mm bezel diameter
- D.P.C.O.
- 1A, 110Vac & 0.5A, 220Vac
- 1A, 12Vdc & 1A, 24Vdc
- Red, Green, Amber or Blue Illumination
- Separate LED Terminals

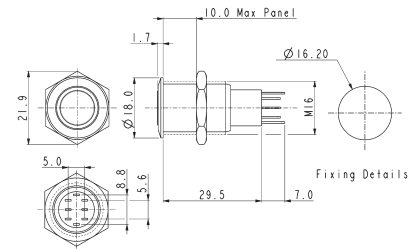


Front Panel Mounting



MP0045/1E2

- Ring Illuminated
- 18mm bezel diameter
- D.P.C.O.
- 1A, 110Vac & 0.5A, 220Vac
- 1A, 12Vdc & 1A, 24Vdc
- Red, Green, Amber or Blue Illumination
- Separate LED Terminals



Specifications

MP0045/1E1/Colour/Voltage/Sealing

MP0045/1E2/Colour/Voltage/Sealing

Terminations: Solder Tags

Solder Tags

Illumination: Dot

Ring

Switching: D.P.C.O. Latching Action

D.P.C.O. Latching Action

Sealing: IP67 IP40  
Part No. /S BLANK

IP67 IP40  
/S BLANK

Max. Switch Rating: 1A, 110Vac & 0.5A, 220Vac  
1A, 12Vdc & 1A, 24Vdc

1A, 110Vac & 0.5A, 220Vac  
1A, 12Vdc & 1A, 24Vdc

LEDs Colours Part No. Red /RD Green /GN Amber /AM Blue /BL

Red /RD Green /GN Amber /AM Blue /BL

Voltage Part No. 12Vdc /012 220Vdc /220

12Vdc /012 220Vdc /220

Contact Resistance: 50mΩ max. @ 1A, 2Vdc

50mΩ max. @ 1A, 2Vdc

Insulation Resistance: >10<sup>9</sup> MΩ @ 500Vac

>10<sup>9</sup> MΩ @ 500Vac

Dielectric Strength: >2.0kVac

>2.0kVac

Operating Temp. Range: -20°C to +55°C

-20°C to +55°C

Operations Mechanical: 200,000 (min)  
Electrical: 30,000 (min)

200,000 (min)  
30,000 (min)

Rear Nut Fixing Torque: 12Nm

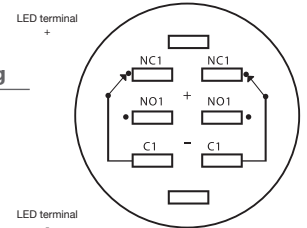
12Nm

Materials Mouldings: Nylon  
Tags: Brass, Silver Plated  
Switch Body & Button: Stainless Steel (Polished)  
Variants: Prominent Button, details on request

Nylon  
Brass, Silver Plated  
Stainless Steel (Polished)  
Prominent Button, details on request

**RoHS** Compliant

Compliant

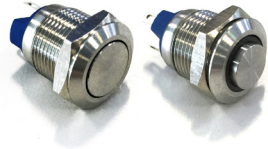


Contact Layout

Soldering Instructions:

- Soldering time less than 3 seconds.
- Do not push on the terminals.
- Recommended cuspidal soldering iron. Temperature around 280°C.

MAV0120

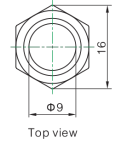
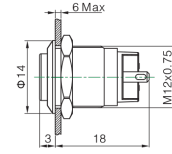


MAV0120/1

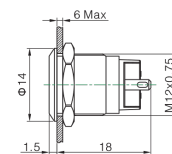
MAV0120/3

- Prominent and Flush Profile
- 12mm Diameter
- 2A, 36 dc
- IP67 (Front of Panel Only)

Prominent Profile

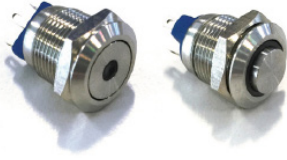


Flush Profile



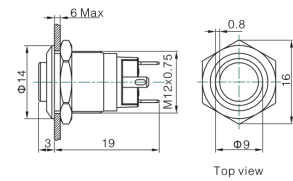
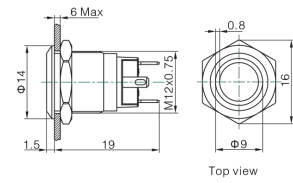
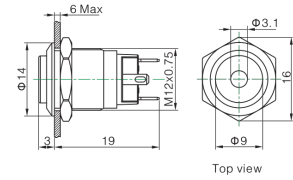
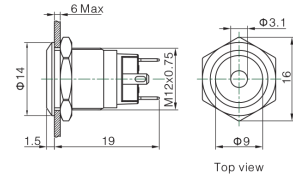
Specification	MAV0120/1	MAV0120/3
Terminations:	P - Solder Tabs	P - Solder Tabs
Switching:	S.P. Push to make	S.P. Push to make
Max Rating:	2A, 36Vdc	2A, 36Vdc
Contact Resistance:	≥50MΩ	≥50MΩ
Insulation Resistance:	≥1000MΩ	≥1000MΩ
Dielectric Strength:	1500V, AC 50Hz, 5 Secs	1500V, AC 50Hz, 5 Secs
Operating Temp Range:	*-25°C ~ +55°C	*-25°C ~ +55°C
<b>Operations</b>		
Mechanical:	500,000 (min)	500,000 (min)
Electrical:	200,000 (min)	200,000 (min)
Sealing (Front of Panel Only)	IP67	IP67
Shock Resistance	IK08	IK08
Rear Nut Fixing Torque:	0.6Nm	0.6Nm
<b>Materials</b>		
Mouldings:	PA	PA
Tags/Terminations:	Brass, Silver Plated	Brass, Silver Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Silver Alloy	Silver Alloy
Thread size:	M12x0.75	M12x0.75
RoHS	Compliant	Compliant

MAV0120



MAV0120

- Dot and Ring Illumination
- Prominent and Flush Profile
- 12mm Diameter
- 2A, 36 dc
- Bright daylight LEDs
- IP67 (Front of Panel Only)



## Specification

## MAV0120

Terminations:	P - Solder Tabs				
Switching:	S.P. Push to make				
Max Rating:	2A, 36Vdc				
Profile:	Prominent /3 Flush /1				
Illumination Type	/1	Dot			
	/2	Ring			
LED Ratings					
Part No.					
Colours	/RD	/GN	/BL	/OR	/AM
Luminous Intensity	Red	Green	Blue	Orange	Yellow
Forward Voltage	1.8V	2.8V	2.8V	1.8V	1.8V
Forward Current					
Moulding Current	15mA	15mA	15mA	15mA	15mA
Illumination Voltage	/no suffix - No resistor fitted. An Appropriate resistor must be series connected by the user. Voltages as above				
	/12	12V			
	/24	24V			
Contact Resistance:	≥50MΩ				
Insulation Resistance:	≥1000MΩ				
Dielectric Strength:	1500V, AC 50Hz, 5 Secs				
Operating Temp. Range:	*-25°C ~ +55°C				
Operations					
Mechanical:	500,000 (min)				
Electrical:	200,000 (min)				
Sealing (Front of Panel Only)	IP67				
Shock Resistance	IK08				
Rear Nut Fixing Torque:	0.6Nm				
Materials					
Mouldings:	PA				
Tags/Terminations:	Brass, Silver Plated				
Switch Body & Button:	Stainless Steel				
Contacts:	Silver Alloy				
Thread size:	M12x0.75				
RoHS	Compliant				

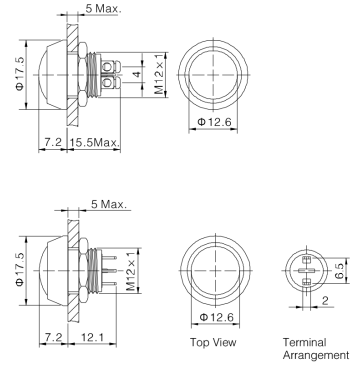


MMP0120



MMP0120

- Raised Domed Profile
- 12mm Diameter
- 2A, 36Vac
- IP65 or IP67 (Front of Panel Only)



Specification	MMP0120/S	MMP0120/N
Terminations:	P - Solder Tabs S - Screw Terminal	P - Solder Tabs S - Screw Terminal
Switching:	S.P. Push to make	S.P. Push to make
Max Rating:	2A, 36Vdc	2A, 36Vdc
Contact Resistance:	≥50MΩ	≥50MΩ
Insulation Resistance:	≥1000MΩ	≥1000MΩ
Dielectric Strength:	1500V, AC 50Hz, 5 Secs	1500V, AC 50Hz, 5 Secs
Operating Temp Range:	*-25°C ~ +55°C	*-25°C ~ +55°C
<b>Operations</b>		
Mechanical:	500,000 (min)	500,000 (min)
Electrical:	200,000 (min)	200,000 (min)
Sealing (Front of Panel Only)	IP65 or IP67	IP65 or IP67
Shock Resistance	IK08	IK08
Rear Nut Fixing Torque:	0.3Nm	0.3Nm
<b>Materials</b>		
Mouldings:	PBT	PBT
Tags/Terminations:	Brass, Gold Plated	Brass, Gold Plated
Switch Body & Button:	/SS Stainless Steel	/N - Nickel Plated Brass
Contacts:	Silver Alloy	Silver Alloy
Thread size:	M12x1	M12x1
RoHS	Compliant	Compliant

# Miniature Domed PBT Pushbutton

Non Illuminated - PBT

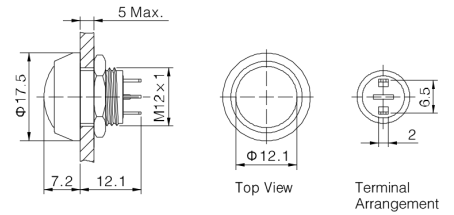
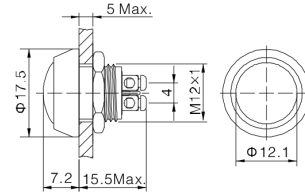


MMP0120/A



MMP0120/A

- Raised Domed Profile
- PBT Material
- 12mm Diameter
- 2A, 36Vac
- IP65 or IP67 (Front of Panel Only)



## Specification

## MMP0120/A

Terminations:	P - Solder Tabs S - Screw Terminal
Switching:	S.P. Push to make
Max Rating:	2A, 36Vdc
Contact Resistance:	≥50MΩ
Insulation Resistance:	≥1000MΩ
Dielectric Strength:	1500V, AC 50Hz, 5 Secs
Operating Temp Range:	*-25°C ~ +55°C
<b>Operations</b>	
Mechanical:	1,000,000 (min)
Electrical:	200,000 (min)
Sealing (Front of Panel Only)	IP65 or IP67
Shock Resistance	IK08
Rear Nut Fixing Torque:	0.3Nm
<b>Materials</b>	
Mouldings:	PBT
Tags/Terminations:	Brass, Gold Plated
Switch Body	/A Black Anodised
Switch Button:	/NB Nickel Plated Brass /RD RED PBT /GN GREEN PBT /BL BLUE PBT /BK BLACK PBT
Contacts:	Silver Alloy
Thread size:	M12x1
RoHS	Compliant

# Miniature Domed Illuminated Pushbutton

Stainless Steel and PBT

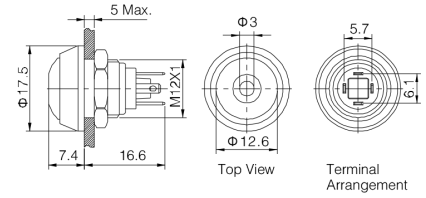


MMPI0120



MMPI0120

- Raised Domed Profile
- Dot Illumination
- Bright daylight LEDs
- 12mm Diameter
- 2A, 36Vac
- IP65 (Front of Panel Only)



## Specification

## MMPI0120

Terminations:	P - Solder Tabs				
Switching:	S.P. Push to make				
Max Rating:	2A, 36Vdc				
LED Ratings					
Part No.	SS-RD	SS-GN	NN-RD	ABK-RD	AG-RD
Colours	Red	Green	Red	Red	Red
Luminous Intensity					
Forward Voltage	1.8V	2.8V	1.8V	1.8V	1.8V
Forward Current					
Moulding Current	15mA	15mA	15mA	15mA	15mA
Illumination Voltage	/no suffix - No resistor fitted. An Appropriate resistor must be series connected by the user. Voltages as above				
	/12				
Contact Resistance:	≥50MΩ				
Insulation Resistance:	≥1000MΩ				
Dielectric Strength:	1500V, AC 50Hz, 5 Secs				
Operating Temp. Range:	*-25°C ~ +55°C				
Operations					
Mechanical:	1,000,000 (min)				
Electrical:	200,000 (min)				
Sealing (Front of Panel Only)	IP65				
Shock Resistance	IK08				
Rear Nut Fixing Torque:	0.3Nm				
Materials					
Mouldings:	PBT				
Tags/Terminations:	Brass, Gold Plated				
Switch Body & Button:	Stainless Steel	Stainless Steel	Nickel Plated Brass	Black Anodized Body, Black PBT Button	Black Anodized Body, Green PBT Button
Contacts:	Silver Alloy				
Thread size:	M12x1				
RoHS	Compliant				

**12mm Miniature Vandal Resistant Stainless Steel Switch**

<b>MAV0120</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>Series</b> MAV0120	<b>Button</b> 1 = Flush 3 = Prominent	<b>Switching Type</b> D = Momentary	<b>Type of Illumination</b> Blank = None 1 = Dot 2 = Ring	<b>Illumination Colour</b> Blank = None RD = RED GN = GREEN BL = BLUE AM = AMBER/YELLOW OR = ORANGE	<b>Lamp Voltage</b> Blank = None 012 = 12V 024 = 24V	

**Examples:**

MAV0120/3D = 12mm Prominent Actuator, Momentary, Non Illuminated  
 MAV0120/3D1BL024 = 12mm Prominent Actuator, Momentary, Blue Dot Illuminated, 24V  
 MAV0120/3D2GN012 = 12mm Prominent Actuator, Momentary, Green Ring Illuminated, 12V

**12mm Miniature Metal/Plastic Domed Pushbutton Switch**

<b>MMPXXX</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>Series</b> MMP0120 = Non Illuminated  MMP10120 = Illuminated	<b>Body Material</b> S = Stainless Steel N = Nickel Plated Brass A = Black Anodized	<b>Button Material &amp; Colour</b> SS = Stainless Steel NB = Nickel Plated Brass RD = RED PBT GN = GREEN PBT BL = BLUE PBT BK = BLACK PBT	<b>Sealing</b> Blank = IP65 67 = IP67 IP67 (non-illuminated only)	<b>Illumination Colour</b> Blank = None RD = RED GN = GREEN BL = BLUE AM = AMBER/YELLOW OR = ORANGE	<b>Lamp Voltage</b> Blank = None 012 = 12V 024 = 24V Other voltages require external resistor	<b>Termination</b> S = Screw Terminals P = Solder Terminals (2.0mm x 0.5mm)	

**Examples:**

MMP0120/SSSS = 12mm, Non Illuminated, All Stainless Steel, IP65, Screw Terminals  
 MMP0120/ARD67/S = 12mm, Non Illuminated, Black anodized body, Red PBT button, IP67, screw terminals  
 MMP10120/NNBRD012P = 12mm, Illuminated, All Nickel Plated Brass with 12V Red Dot illumination, IP65, Plug Terminals