Vandal Resistant Switches

Manufactured from durable stainless steel, Bulgin's vandal-resistant switches are engineered to withstand high resistance to wear and tear, corrosion, and harsh treatment. Ideal for potentially hostile environments such as public areas, industrial environments, and building management systems, these switches ensure long-lasting performance and security.

Built to endure extreme temperatures, dust, rain, snow, ice, dirt, and moisture, Bulgin's rugged anti-vandal switches are perfect for demanding applications subject to abuse and damage. Applications include kiosks, elevators, pedestrian crossings, and ticket machines.

Features:

- 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



Vandal Resistant Switches

Body Style & Part Number Information:

// Vandal Resistant Switches

- **8300 Vandal Resistant Switches - R, V or P Actuators**
  8300, 8301, 8350, 8351
- **0911 Push Button Switches - V Actuator**
  0911
- **Stainless Steel Low Profile Vandal Resistant Push Button Switches**
  MP0027, MP0031, MP0037, MP0038
- **Stainless Steel Domed Vandal Resistant Push Button Switches**
  MP0027/3, MP0031/3, MP0037/3, MP0038/3
- **Brass Chrome Plated Low Profile Vandal Resistant Push Button Switches**
  MPB031, MPB0037, MPB038, MPB038/3
- **27mm Panel Cutout Stainless Steel Large Diameter Vandal Resistant Push Button Switches**
  MP0050, MP0050/2
- **12mm Switches Miniature Stainless Steel Vandal Resistant Prominent Button / Flush Profile**
  MAV0120, MAV0120/1, MAV0120/3
- **Stainless Steel Illuminated Vandal Resistant Push Button Switches**
  MPI001, MPI002
- **Vandal Resistant Push Button Switch**
  MPI005
- **12mm Switches Miniature Domed Metal Vandal Resistant - None Illuminated - Metal Dome**
  MMP0120, MMPI0120
- **MP0013 Series 19mm Panel Cutout Push Button Switches**
  MP0013, MP0013/2, MP0033, MP0033/2
- **MP0042 Series Stainless Steel / Momentary Push Button Switch**
  MP0042/1, MP0042/2, MP0042/3
- **Stainless Steel - Momentary Push Button Switch**
  MP0045/1D0NN000, MP0045/3D0NN000, MP0045/1E0NN000, MP0045/3E0NN000
- **Stainless Steel Illuminated Momentary Push Button Switch**
  MP0045/1D1, MP0045/1D2, MP0045/1E1, MP0045/1E2

// Vandal Resistant Switch Product Range:


8300


0911


MP0027


MP0027/2


MP0027/3


MP0031


MP0031/2


MP0031/3


MP0037


MP0037/2


MP0037/3


MP0038


MP0038/2


MP0038/3


MPB031


MPB0037


MPB038


MP0050


MP0050/2


MAV0120


MPI001
MPI002


MPI001/RP


MPI002/FL


MPI005


MMP0120


MP0013
MP0033


MP0042


MP0045


MP0045/1D1

8300 Vandal Resistant Switches

Designed to IP66



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

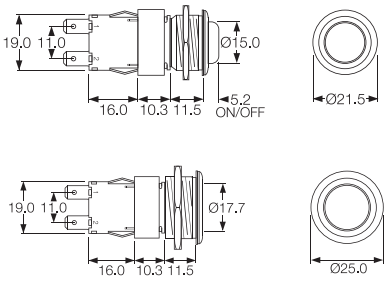
12A 250Vac DP, 13A 250Vac SP
250Vac 1hp, 125Vac 1/2hp
UL 85°C, file E45221

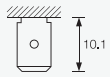
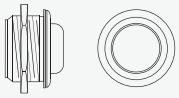
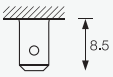
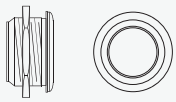
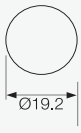
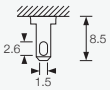
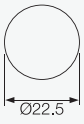
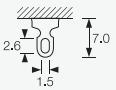
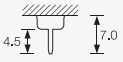
In house test:
10(10)A 250Vac—Indicative rating only

3mm contact gap.

Dimensions

8300RP (H terminals shown)



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

0911 Vandal Resistant Switches

Designed to IP66



C0911VA - - -

Key Features

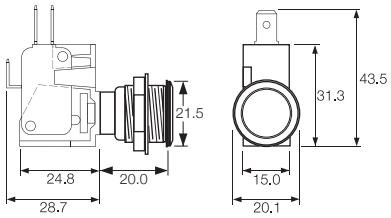
- Snap action switches
- Ratings up to 16A, 250Vac
- Round and rectangular buttons
- Single Contact C/O Switch

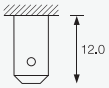
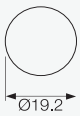
Approvals and specifications

Approvals apply to switch mechanism only.
µ contact gap.

Dimensions

C0911VA



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

Stainless Steel Low Profile Vandal Resistant

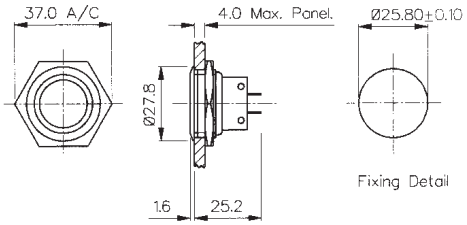
Momentary

Front Panel Mounting



MP0027

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

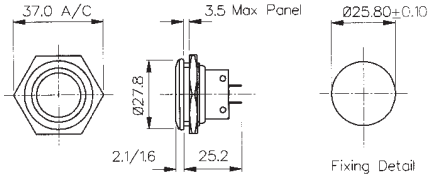


Front Panel Mounting



MP0038
Sealed to IP66

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



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:	>10³ MΩ	>10³ 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: Electrical:	 1,000,000 (min) 35,000 (min)	 1,000,000 (min) 35,000 (min)
Operating Pressure:	7.5N (typ)	12.5N (typ)
Rear Nut Fixing Torque:	2.5Nm	1.13Nm
Materials Mouldings: Tags/Terminations: Switch Body & Button:	 Glass Filled Nylon Brass, Tin Plated Stainless Steel	 Glass Filled Nylon Brass, Tin Plated Stainless Steel
Contacts:	Fine Silver	Fine Silver
Thread size:	1.0” x 26TPI	1.0” x 26TPI
RoHS	Compliant	Compliant

Stainless Steel Low Profile Vandal Resistant

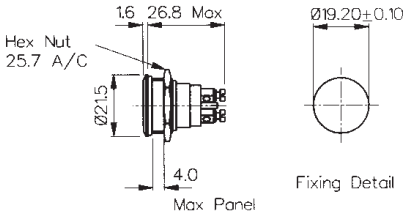
Momentary

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

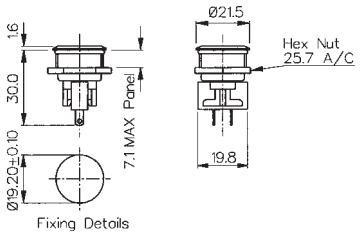


Front Panel Mounting



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:	$>10^5$ MΩ	$>10^3$ 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): IP68 rating 10M for 2 weeks test:	Protection Classification: IP68 EN 60529:1992+A2:2013 (Micro switch not sealed) Passed	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)
Operations Mechanical: Electrical:	 1,000,000 (min) 30,000 (min)	 1,000,000 (min) 35,000 (min)
Operating Pressure:	10N (typ)	4.7N (typ)
Rear Nut Fixing Torque:	0.57Nm	0.57Nm
Materials Mouldings: Tags/Terminations: Switch Body & Button:	 Glass Filled Nylon Brass, Silver Plated Stainless Steel	 Glass Filled Nylon Brass, Tin Plated Stainless Steel
Contacts:	Brass, Silver Plated, Silver	Fine Silver
Thread size:	0.747” x 26TPI	0.747” x 26TPI
RoHS	Compliant	Compliant

Stainless Steel Illuminated Vandal Resistant

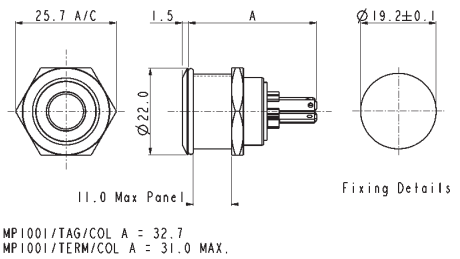
LED

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



Specifications — MPI001/Termination/Colour/Voltage

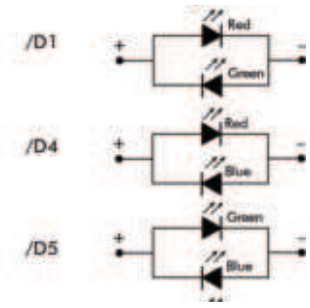
Illumination style:	Dot
Terminations:	/28 (2.8mm tabs), /TERM or /TE (screw terminals)
Switching:	Single Contact, push to make, tactile (momentary action)
Max. Switch Rating:	50mA, 24Vdc

LEDs (ratings @ 20mA)

Part No.	/RD	/GN	/AM	/BL	/WH	/D1	/D4	/D5
Colours	Red	Green	Amber	Blue	White	Red/Green	Red/Blue	Green/Blue
Luminous Intensity	900mcd	2500mcd	900mcd	1500mcd	900mcd	2500mcd/5000mcd	2000mcd/850mcd	4000mcd/2000mcd
Forward Voltage	1.85V	3.5V	2.3V	3.5V	3.6V	2.05V/3.6V	2.0V/3.6V	3.6V/3.6V
Forward Current	20mA	20mA	20mA	20mA	20mA	20mA	20mA	20mA
Moulding Colour	Red	Green	Amber	Blue	White	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:	>10³ 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		
Mechanical:	750,000 (min)	
Electrical:	35,000 (min)	
Operating Pressure:	12N	
Rear Nut Fixing Torque:	0.57Nm	
Screw Terminal Torque	0.2Nm Max	

Dual Colour LED Configuration



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
RoHS	Compliant

Stainless Steel Illuminated Vandal Resistant

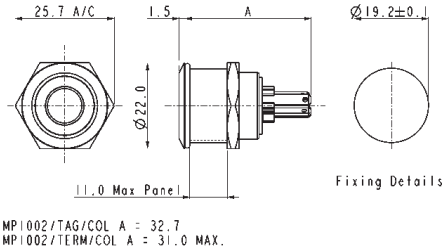
LED

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)

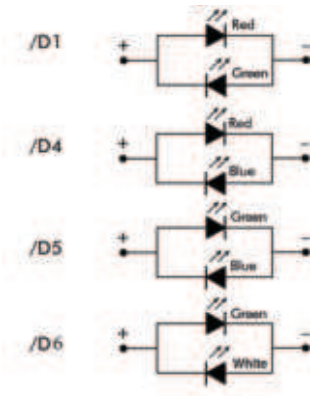
Part No.	/RD	/GN	/AM	/BL	/WH	/D1	/D4	/D5	/D6
Colours	Red	Green	Amber	Blue	White	Red/Green	Red/Blue	Green/Blue	Green/White
Luminous Intensity	900mcd	2500mcd	900mcd	1500mcd	900mcd	2500mcd/5000mcd	2000mcd/850mcd	4000mcd/2000mcd	178mcd/450mcd
Forward Voltage	1.85V	3.5V	2.3V	3.5V	3.6V	2.05V/3.6V	2.0V/3.6V	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:	>10³ 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
RoHS	Compliant

Dual Colour LED Configuration



Stainless Steel Illuminated Vandal Resistant

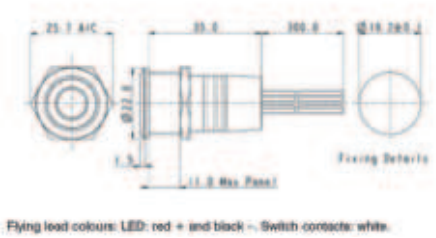
Rear of panel IP66 seal

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



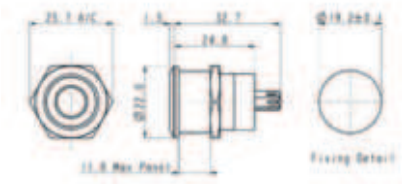
Flying lead colours: LED: red + and black –. Switch contacts: white.

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**				
Illumination style:	Dot					Ring				
Terminations:	/FL (Flying leads) /RP (Solder tags)					/FL (Flying leads) /RP (Solder tags)				
Switching:	Single Contact, push to make, tactile (momentary action)					Single Contact, push to make, tactile (momentary action)				
Max. Switch Rating:	50mA, 24Vdc					50mA, 24Vdc				
LEDs (ratings @ 20mA)										
Part No.	/RD	/GN	/AM	/BL	/WH	/RD	/GN	/AM	/BL	/WH
Colours	Red	Green	Amber	Blue	White	Red	Green	Amber	Blue	White
Luminous Intensity	900mcd	2500mcd	900mcd	1500mcd	900mcd	900mcd	2500mcd	900mcd	1500mcd	900mcd
Forward Voltage	1.85V	3.5V	2.3V	3.5V	3.6V	1.85V	3.5V	2.3V	3.5V	3.6V
Forward Current	20mA	20mA	20mA	20mA	20mA	20mA	20mA	20mA	20mA	20mA
Moulding Colour	Red	Green	Amber	Blue	White	Red	Green	Amber	Blue	White
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					/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					<100mΩ				
Insulation Resistance:	>10³ MΩ					>10³ MΩ				
Dielectric Strength:	Contact to Panel >2.0kV Contact to Contact 1500					Contact to Panel >2.0kV Contact to Contact 1500				
Operating Temp. Range:	–30°C to +70°C					–30°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:	750,000 (min)									
Electrical:	35,000 (min)					35,000 (min)				
Operating Pressure:	12N					12N				
Rear Nut Fixing Torque:	0.57Nm					0.57Nm				
Materials										
Switch assembly:	UL94V-0 rated Polyamide (Nylon)					UL94V-0 rated Polyamide (Nylon)				
Tags:	Copper Alloy					Copper Alloy				
Terminals:	Copper Alloy					Copper Alloy				
Switch Body & Button:	Stainless Steel					Stainless Steel				
Lens and Lens Body:	Polycarbonate					Polycarbonate				
O ring:	Nitrile					Nitrile				
Internal seal:	Silicone					Silicone				
Contact Plate:	Gold Plated					Gold Plated				
Thread size:	18.97mm x 26TPI					18.97mm x 26TPI				
RoHS	Compliant					Compliant				

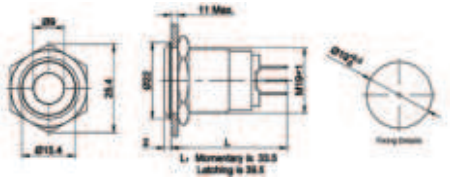
19mm Stainless Steel Illuminated Vandal Resistant

Low Profile

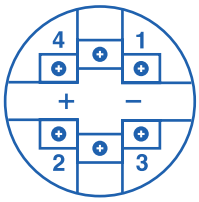


MPI005

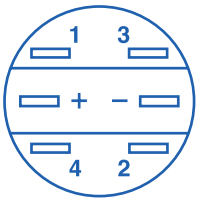
- 22mm bezel diameter
- 19.2mm ± 0.2mm fixing hole diameter
- S.P.C.O



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: Electrical:	 1,000,000 (min) 50,000 (min)
Rear Nut Fixing Torque:	0.8Nm
Materials Mouldings: Tags/Terminations: Switch Body & Button:	 Polycarbonate Brass, Gold Plated Stainless Steel / Aluminium Alloy
Contacts:	Silver
RoHS	Compliant

19mm Stainless Steel Illuminated Vandal Resistant

MPI / 005 / X / X / X / X / X / X

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

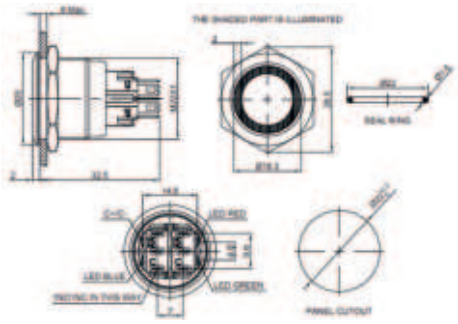
MP22 Illuminated Vandal Resistant Switch

MP22 Ring Illuminated RGB Vandal Resistant Switches



MP22XXQRXXQXXXXX

- Ring Illuminated RGB vandal resistant switch
- LED voltages available: 6v, 12v, 24v
- Available in Stainless Steel or Black coated Aluminium
- Choice of IP65 or IP67 ratings
- SPDT and DPDT options available
- Can support Latching or Momentary action
- Choice of Anode common or Cathode Common



Ring Illuminated

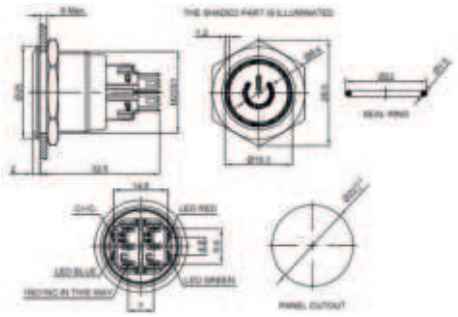
Series	Contact Structure	Operation	Illumination	Common Pin	LED Colour	LED Voltage	Shell Material	IP Rating
MP22	S - SPDT	L - Latching	QR - RGB Ring Illuminated	CC - Cathode	Q - RGB	006 - 6V	S - Stainless steel	5 - IP65
	D - DPDT	M - Momentary		AC - Anode		012 - 12V	A - Black Aluminium	7 - IP67
						024 - 24V		

MP22 Power Symbol Illuminated RGB Vandal Resistant Switches



MP22XXQPXXQXXXXX

- Power Symbol Illuminated RGB vandal resistant switch
- LED voltages avaialable: 6v, 12v, 24v
- Available in Stainless Steel or Black coated Aluminium
- Choice of IP65 or IP67 ratings
- SPDT and DPDT options available
- Can support Latching or Momentary action
- Choice of Anode common or Cathode Common



Power Symbol Illuminated

Series	Contact Structure	Operation	Illumination	Common Pin	LED Colour	LED Voltage	Shell Material	IP Rating
MP22	S - SPDT	L - Latching	QP - RGB Power Symbol illuminated	CC - Cathode	Q - RGB	006 - 6V	S - Stainless Steel	5 - IP65
	D - DPDT	M - Momentary		AC - Anode		012 - 12V	A - Black Aluminium	7 - IP67
						024 - 24V		

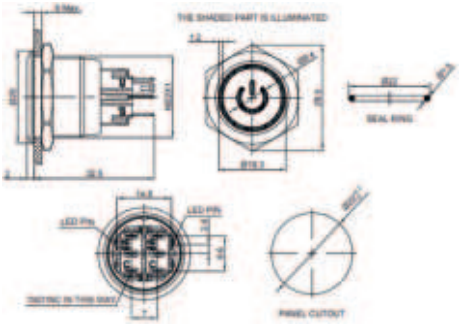
MP22 Illuminated Vandal Resistant Switch

MP22 Power Symbol Illuminated Vandal Resistant Switches



MP22XXPINRXXXXXX

- Power Symbol Illuminated vandal resistant switch
- Available in Red, Green, Blue, Yellow, White
- LED voltages available: 6v, 12v, 24v,110v, 220v
- Available in Stainless Steel or Black coated Aluminium
- Choice of IP65 or IP67 ratings
- SPDT and DPDT options available
- Latching and momentary options available



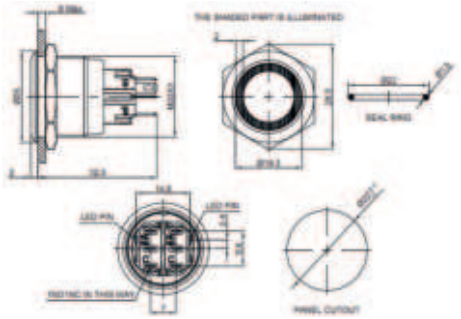
Power Symbol Illuminated								
Series	Contact Structure	Operation	Illumination	Common Pin	LED Colour	LED Voltage	Shell Material	IP Rating
MP22	S - SPDT	L - Latching	PI - Power symbol Illuminated	NR - Not applicable	R - Red	006 - 6V	S - Stainless Steel	5 - IP65
	D - DPDT	M - Momentary			G - Green	012 - 12V	A - Black Aluminium	7 - IP67
					Y - Yellow	024 - 24V		
					B - Blue	110 - 110V		
					W - White	220 - 220V		

MP22 Ring Illuminated Vandal Resistant Switches



MP22XXRINRXXXXXX

- Ring Illuminated vandal resistant switch
- Available in Red, Green, Blue, Yellow, White
- LED voltages available: 6v, 12v, 24v,110v, 220v
- Available in Stainless Steel or Black coated Aluminium
- Choice of IP65 or IP67 ratings
- SPDT and DPDT options available
- Latching and momentary options available



Ring Illuminated								
Series	Contact Structure	Operation	Illumination	Common Pin	LED Colour	LED Voltage	Shell Material	IP Rating
MP22	S - SPDT	L - Latching	RI - Ring Illuminated	NR - Not applicable	R - Red	006 - 6V	S - Stainless Steel	5 - IP65
	D - DPDT	M - Momentary			G - Green	012 - 12V	A - Black Aluminium	7 - IP67
					Y - Yellow	024 - 24V		
					B - Blue	110 - 110V		
					W - White	220 - 220V		

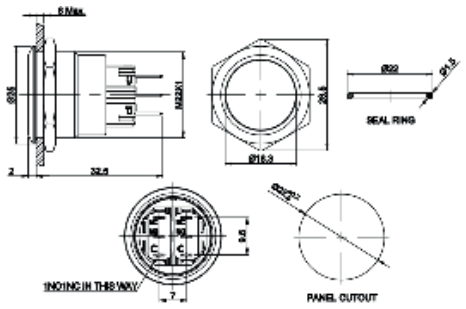
MP22 Non Illuminated Vandal Resistant Switch

Non Illuminated vandal resistant switch



MP22XXNINRN000XX

- Non illuminated vandal resistant switch
- SPDT and DPDT options available
- Available in Stainless Steel or Black coated Aluminium
- Choice of IP65 or IP67 ratings
- Latching and momentary options available



Not Illuminated								
Series	Contact Structure	Operation	Illumination	Common Pin	LED Colour	LED Voltage	Shell Material	IP Rating
MP22	S - SPDT	L - Latching	NI - Not Illuminated	NR - Not applicable	N - No LED	000 - No Resistor	S - Stainless Steel	5 - IP65
	D - DPDT	M - Momentary					A - Black Aluminium	7 - IP67

General Specifications	
Electrical	
Switch Rating	Ui: 250V, Ith: 5A
Electrical Life	≥50,000 cycles
Initial Contact Resistance	≤50mΩ
Insulation Resistance	≥100MΩ(500VDC)
Power-Frequency Withstand Voltage	1,500V, RMS 50Hz, 1min
Terminal Type	Pin terminal (2.8X0.5mm)
Mechanical	
Mechanical Life	Momentary: ≥1,000,000 cycles, ≥Latching: 500,000 cycles
Torque	About 1.0N·m applied to nut
Operating Force	About 3N(1NO1NC), About 4N(2NO2NC)
Operating Travel	About 3mm
Front Panel IP Protection	IP65 or IP67
IK Rating	IK09
Operating Temperature	-25°C~+55°C
Panel Mount Cutout	22mm
Max Panel Thickness	8mm
Materials	
Rohs Compliance	Yes
Contact Material	Silver Alloy
Button Material	Stainless Steel/PC or Aluminium/PC
Body Material	Stainless Steel or Aluminium
Base Material	PA

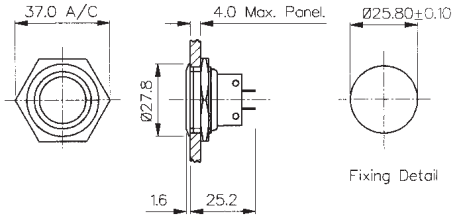
Low Profile Brass Chrome Plated Vandal Resistant

Front Panel Mounting



MPB038
Sealed to IP66

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

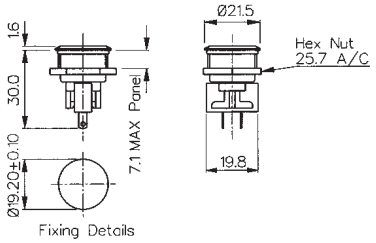


Front Panel Mounting



MPB031
Sealed to IP66

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

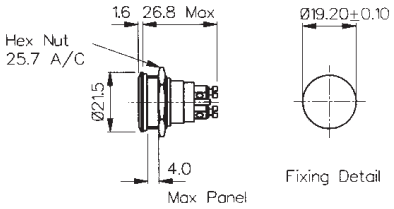


Front Panel Mounting



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:	>10^3 MΩ	>10^3 MΩ	>10^5 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
RoHS	Compliant	Compliant	Compliant

Stainless Steel Large Diameter Vandal Resistant

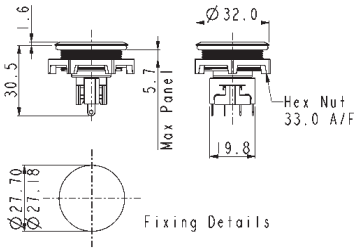
Momentary

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

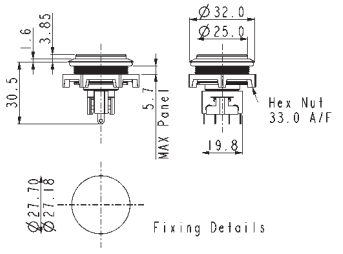


Front Panel Mounting - Protruding Profile



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:	>10^3 MΩ	>10^3 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: Electrical:	 1,000,000 (min) 35,000 (min)	 1,000,000 (min) 35,000 (min)
Operating Pressure:	4.7Nm	4.7N (typ)
Rear Nut Fixing Torque:	0.57Nm	0.57Nm
Materials Mouldings: Tags/Terminations: Switch Body & Button:	 Glass Filled Nylon Brass, Tin Plated Stainless Steel	 Glass Filled Nylon Brass, Tin Plated Stainless Steel
Contacts:	Fine Silver	Fine Silver
Thread size:	M27 x 1.0-6H	M27 x 1.0-6H
RoHS	Compliant	Compliant

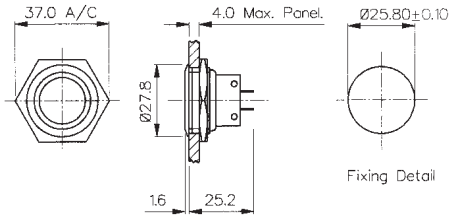
Stainless Steel Domed Vandal Resistant

Front Panel Mounting



MP0027/3

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

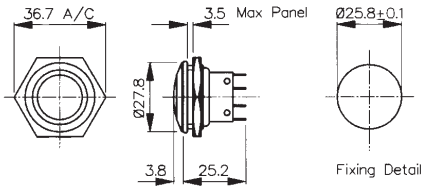


Front Panel Mounting



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:	>10³ MΩ	>10³ 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

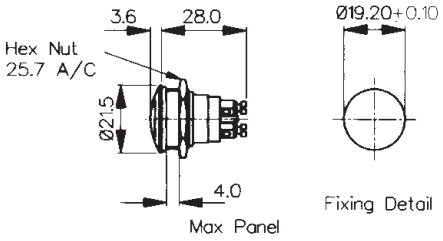
Stainless Steel Domed Vandal Resistant

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

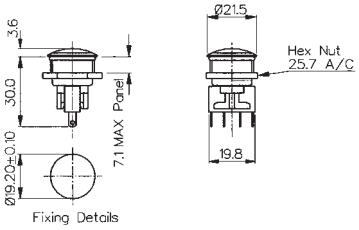


Front Panel Mounting



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:	$>10^5$ MΩ	$>10^3$ 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: Electrical:	 1,000,000 (min) 35,000 (min)	 1,000,000 (min) 35,000 (min)
Operating Pressure:	7.5N (typ)	4.7N (typ)
Rear Nut Fixing Torque:	2.5Nm	0.57Nm
Materials Mouldings: Tags/Terminations: Switch Body & Button:	 Glass Filled Nylon Brass, Tin Plated Stainless Steel	 Glass Filled Nylon Brass, Tin Plated Stainless Steel
Contacts:	Brass, Silver Plated, Silver	Fine Silver
Thread size:	0.747” x 26TPI	0.747” x 26TPI
RoHS	Compliant	Compliant

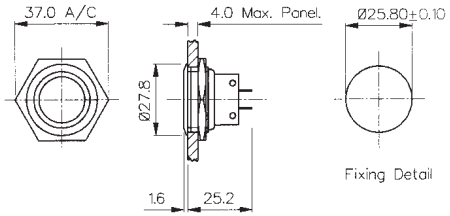
Stainless Steel Prominent Button Vandal Resistant

Front Panel Mounting



MP0027/2

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

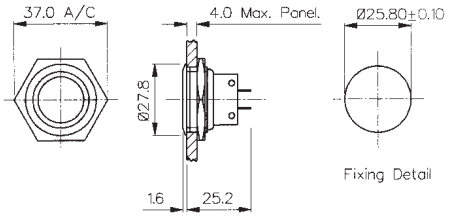


Front Panel Mounting



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:	>10³ MΩ	>10³ 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: Electrical:	 1,000,000 (min) 35,000 (min)	 1,000,000 (min) 35,000 (min)
Operating Pressure:	7.5N (typ)	12.5N (typ)
Rear Nut Fixing Torque:	2.5Nm	1.13Nm
Materials Mouldings: Tags/Terminations: Switch Body & Button:	 Glass Filled Nylon Brass, Tin Plated Stainless Steel	 Glass Filled Nylon Brass, Tin Plated Stainless Steel
Contacts:	Fine Silver	Fine Silver
Thread size:	1.0” x 26TPI	1.0” x 26TPI
RoHS	Compliant	Compliant

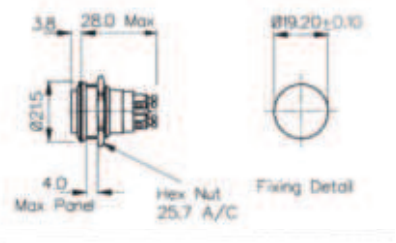
Stainless Steel Prominent Button Vandal Resistant

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

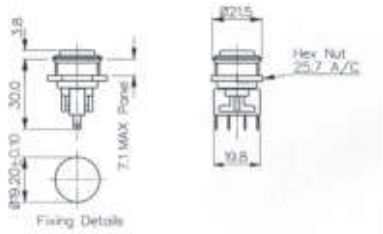


Front Panel Mounting



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:	$>10^5$ MΩ	$>10^3$ 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: Electrical:	 1,000,000 (min) 35,000 (min)	 1,000,000 (min) 35,000 (min)
Operating Pressure:	7.5N (typ)	4.7N (typ)
Rear Nut Fixing Torque:	0.57Nm	0.57Nm
Materials Mouldings: Tags/Terminations: Switch Body & Button:	 Glass Filled Nylon Brass, Tin Plated Stainless Steel	 Glass Filled Nylon Brass, Tin Plated Stainless Steel
Contacts:	Brass, Silver Plated, Silver	Fine Silver
Thread size:	0.747” x 26TPI	0.747” x 26TPI
RoHS	Compliant	Compliant