



Switches

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.

The front and rear panel mounted versions have three profiles – prominent, domed and low profile – with a choice of switching and IP66 front panel sealing and combine together to meet the ergonomic, electrical and environmental demands of switch panel design. And where the ultimate strength of steel is not needed, there is a brass, chrome plated alternative.

The illuminated versions, available in dot and ring indication, are new to the range and will add that extra dimension to control panel layouts.

Other switch types include conventional, push-button and toggle switches.

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Vandal Resistant Switches

ENGRAVING OPTIONS

The low profile and prominent vandal resistant switches MP0025, MP0027, MP0031, MP0034, MP0038, MP0025/2, MP0027/2, MP0031/2, MP0034/2 and MP0038/2 are also available with engraved non-rotating buttons.

| | | | | |
|----|-----|-----|----|----|
| 0 | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 |
| 20 | A1* | A2* | | |

How to Order

MP00xx/1/xx

Switch Style _____
 MP0025, MP0025/2, MP0027, MP0027/2,
 MP0031, MP0031/2, MP0034, MP0034/2.
 MP0038, MP0038/2

Non Rotating Button _____

Engraving option _____

0 - 20 Numeric
 A1 = Up Arrow
 A2 = Down Arrow

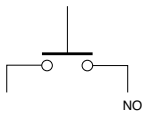
Examples

MP0031/1/A1 = MP0031 style switch, with non-rotating button engraved with an up arrow

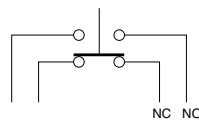
MP0027/2/1/13 = MP0027 style switch with prominent non-rotating button engraved with numeric characters 13

SWITCH OPERATION

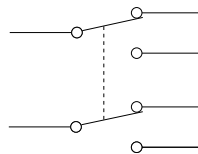
Switch Contact Operation



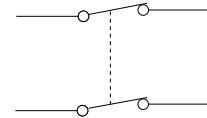
S.P. Push to Make
S.P.M.B.



S.P.C.O.



D.P.C.O.



D.P.M.B.

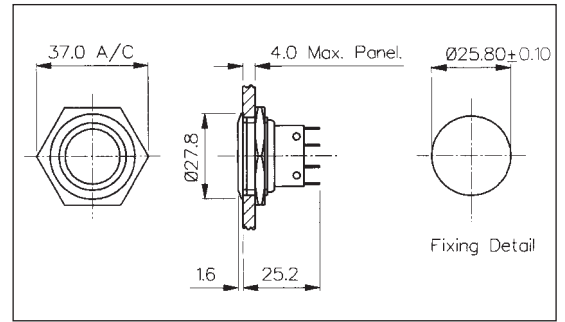
Stainless Steel Low Profile Vandal Resistant

FRONT PANEL MOUNTING



MP0027

- 28mm diameter
- S.P.C.O. Microswitch
- 5A, 250V a.c.

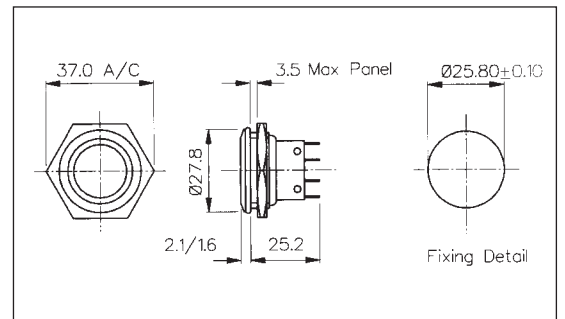


FRONT PANEL MOUNTING



MP0038
Sealed to IP66

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

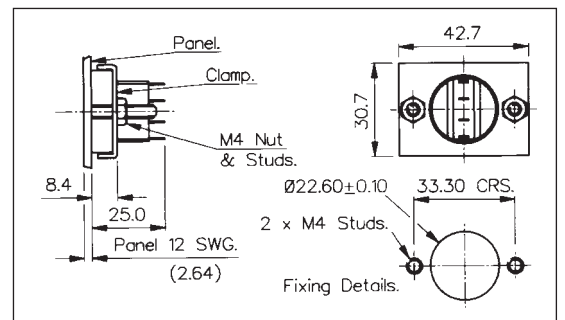


REAR PANEL MOUNTING



MP0025

- 22mm diameter
- S.P.C.O. Microswitch
- 5A, 250V a.c.



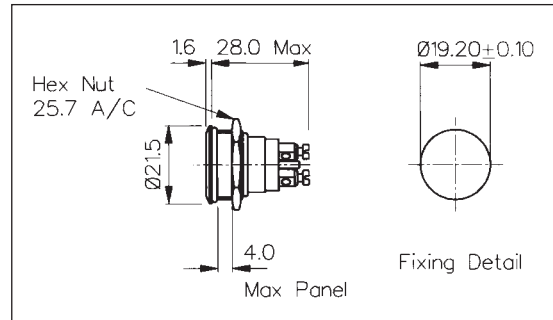
| Specification | MP0027 | MP0038 | MP0025 |
|--------------------------------|--|--|--|
| Terminations: | Solder Tags | Solder Tags | Solder Tags |
| Switching: | S.P.C.O. Momentary Action (Microswitch) | S.P.C.O. Momentary Action (Microswitch) | S.P.C.O. Momentary Action (Microswitch) |
| Max. Rating: | 5A, 250V a.c. | 5A, 250V a.c. | 5A, 250V a.c. |
| Contact Resistance: | <10mΩ | <10mΩ | <10mΩ |
| Insulation Resistance: | >10 ³ MΩ | >10 ³ MΩ. | >10 ³ MΩ |
| Dielectric Strength: | >2.0kV a.c. | >2.0kV a.c. | >2.0kV a.c. |
| 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 1992 (Micro switch not sealed) | |
| Operations | | | |
| Mechanical: | 1,000,000 (min) | 1,000,000 (min) | 1,000,000 (min) |
| Electrical: | 35,000 (min) | 35,000 (min) | 35,000 (min) |
| Operating Pressure: | 7.5N (typ) | 12.5N (typ) | 6.1N (typ) |
| Rear Nut Fixing Torque: | 2.5Nm | 1.13Nm | - |
| 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: | Stainless Steel | Stainless Steel | Stainless Steel |
| Contacts: | Fine Silver | Fine Silver | Fine Silver |
| Variants: | Engraved Button, Non-Rotating Button, details on request | Engraved Button, Non-Rotating Button, details on request | Engraved Button, Non-Rotating Button, details on request |

Stainless Steel Low Profile Vandal Resistant

FRONT PANEL MOUNTING



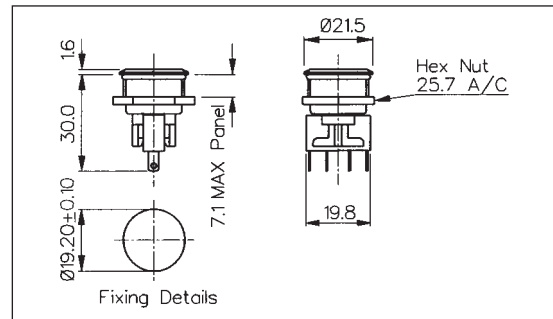
- Front Panel Sealed to IP68
- 21.5mm diameter
- S.P. Push to Make
- 1A, 50V
- Industry Standard Size



FRONT PANEL MOUNTING



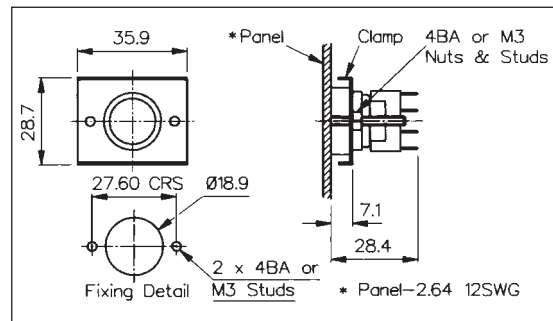
- Front Panel Sealed to IP66
- 21.5mm diameter
- S.P.C.O. Microswitch
- 5A, 250V a.c.



REAR PANEL MOUNTING



- Rear Panel Mounting
- Flush with Panel
- 19mm diameter
- S.P.C.O. Microswitch
- 5A, 250V a.c.



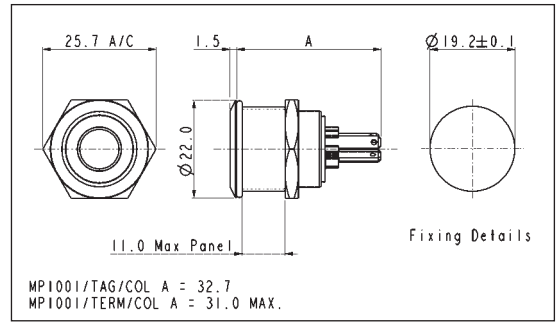
| Specification | MP0037 | MP0031 | MP0034 |
|--------------------------------|--|---|---|
| Terminations: | Screw Terminals | Solder Tags | Solder Tags |
| Switching: | S.P. Push to make Momentary action | S.P.C.O. Momentary Action (Microswitch) | S.P.C.O. Momentary Action (Microswitch) |
| Max. Rating: | 1A, 50V | 5A, 250V a.c. | 5A, 250V a.c. |
| Contact Resistance: | <10mΩ | <10mΩ | <10mΩ |
| Insulation Resistance: | >10 ⁵ MΩ | >10 ³ MΩ. | >10 ³ MΩ |
| Dielectric Strength: | >1.0kV a.c. | >2.0kV a.c. | >2.0kV a.c. |
| 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: IP68 EN60529 1992 (Terminals not sealed) | Protection Classification: IP66 EN60529 1992 (Micro switch not sealed) | |
| Operations | | | |
| Mechanical: | 1,000,000 (min) | 1,000,000 (min) | 250,000 (min) |
| Electrical: | 30,000 (min) | 35,000 (min) | 35,000 (min) |
| Operating Pressure: | 7.5N (typ) | 4.7N (typ) | 2.7N (typ) |
| Rear Nut Fixing Torque: | 0.57Nm | 0.57Nm | - |
| Materials | | | |
| Mouldings: | Glass Filled Nylon | Glass Filled Nylon | Glass Filled Nylon |
| Tags/Terminations: | Brass, Silver Plated | Brass, Tin Plated | Brass, Tin Plated |
| Switch Body & Button: | Stainless Steel | Stainless Steel | Stainless Steel |
| Contacts: | Brass, Silver Plated, Silver | Fine Silver | Fine Silver |
| Variants: | - | Engraved Button, Non-Rotating Button, details on request | Engraved Button, Non-Rotating Button, details on request |

Stainless Steel Illuminated Vandal Resistant

FRONT PANEL MOUNTING



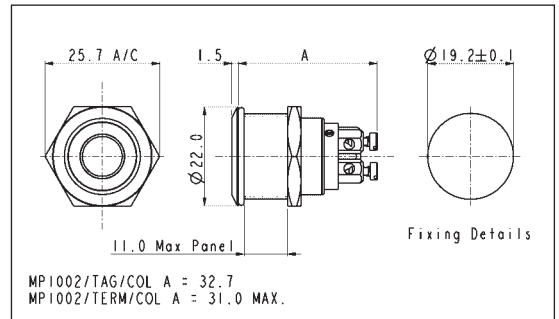
- Dot Illuminated
- 22mm diameter
- S.P. Push to Make
- 50mA, 24V dc contact rating
- Red, Green, Amber or Blue Illumination
- Bright Daylight LEDs
- Separate LED Terminals



FRONT PANEL MOUNTING



- Ring Illuminated
- 22mm diameter
- S.P. Push to Make
- 50mA, 24V dc contact rating
- Red, Green, Amber or Blue Illumination
- Bright Daylight LEDs
- Separate LED Terminals



| Specification | MPI001/Termination/Col | MPI002/Termination/Col |
|--------------------------------|---|---|
| Terminations: | /28 (2.8mm tabs), /Term (screw terminals) | /28 (2.8mm tabs), /Term (screw terminals) |
| Switching: | S.P. Push to make, tactile | S.P. Push to make, tactile |
| Max. Rating: | 50mA, 24V d.c. | 50mA, 24V d.c. |
| Contact Resistance: | <100mΩ | <100mΩ |
| Insulation Resistance: | >10 ³ MΩ | >10 ³ MΩ. |
| Dielectric Strength: | Contact to Panel >2.0kV Contact to Contact 1500V | Contact to Panel >2.0kV Contact to Contact 1500V |
| Operating Temp. Range: | -30°C to +70°C | -30°C to +70°C |
| Sealing (Front of panel only): | Protection Classification: IP66 EN60529 1992 | Protection Classification: IP66 EN60529 1992 |
| Operations | | |
| Mechanical: | 750,000 (min) | 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 rings: | Nitrile and Silicone | Nitrile and Silicone |
| Contact Plate: | Gold Plated | Gold Plated |
| LEDs (ratings @ 20mA) | | |
| Colours | Red Green Amber Blue | Red Green Amber Blue |
| Luminous Intensity | 900mcd 1500mcd 220mcd 1500mcd | 900mcd 1500mcd 220mcd 1500mcd |
| Forward Voltage* | 1.85V 3.0V 2.0V 3.4V | 1.85V 3.0V 2.0V 3.4V |
| Part No. | /RD /GN /AM /BL | /RD /GN /AM /BL |
| | *A resistor must be series connected by the user | |

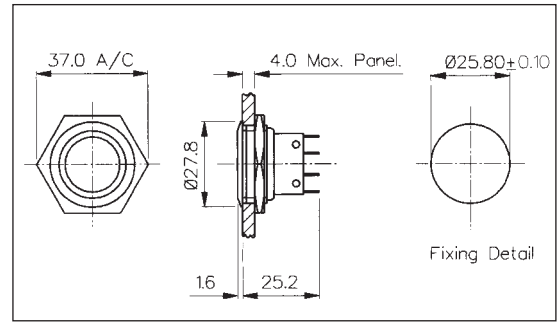
Low Profile Brass Chrome Plated Vandal Resistant

FRONT PANEL MOUNTING



MPB027

- 28mm diameter
- S.P.C.O. Microswitch
- 5A, 250V a.c.

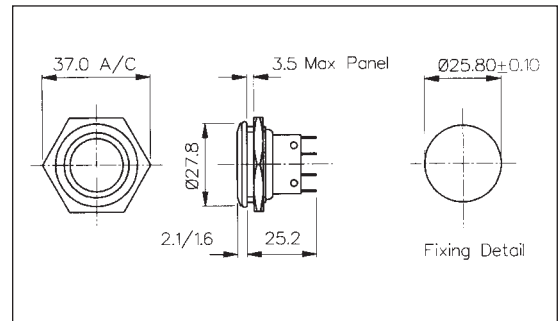


FRONT PANEL MOUNTING



MPB038
Sealed to IP66

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

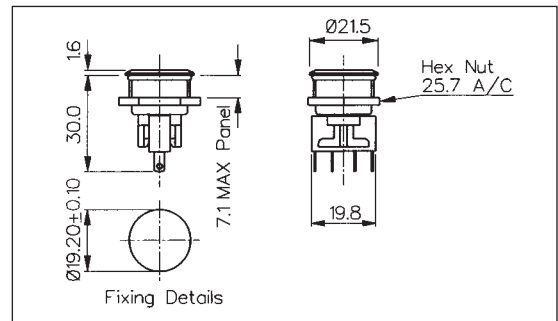


FRONT PANEL MOUNTING



MPB031
Sealed to IP66

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



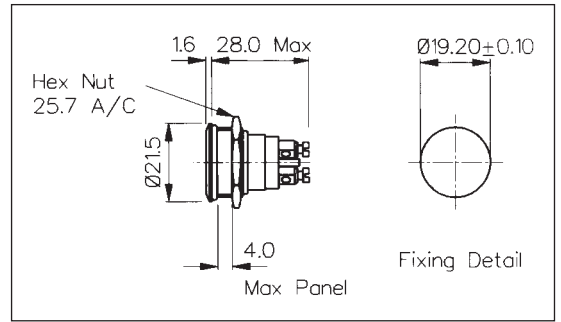
| Specification | MPB027 | MPB038 | MPB031 |
|--------------------------------|---|--|--|
| Terminations: | Solder Tags | Solder Tags | Solder Tags |
| Switching: | S.P.C.O. Momentary Action (Microswitch) | S.P.C.O. Momentary Action (Microswitch) | S.P.C.O. Momentary Action (Microswitch) |
| Max. Rating: | 5A, 250V a.c. | 5A, 250V a.c. | 5A, 250V a.c. |
| Contact Resistance: | <10mΩ | <10mΩ | <10mΩ |
| Insulation Resistance: | >10 ³ MΩ | >10 ³ MΩ. | >10 ³ MΩ |
| Dielectric Strength: | >2.0kV a.c. | >2.0kV a.c. | >2.0kV a.c. |
| 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 1992 (Micro switch not sealed) | Protection Classification: IP66 EN60529 1992 (Micro switch not sealed) |
| Operations | | | |
| Mechanical: | 1,000,000 (min) | 1,000,000 (min) | 1,000,000 (min) |
| Electrical: | 35,000 (min) | 35,000 (min) | 35,000 (min) |
| Operating Pressure: | 7.5N (typ) | 12.5N (typ) | 4.7N (typ) |
| Rear Nut Fixing Torque: | 2.5Nm | 1.13Nm | 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, Chrome Plated | Brass, Chrome Plated | Brass, Chrome Plated |
| Contacts: | Fine Silver | Fine Silver | Fine Silver |
| Variants: | Non-Rotating Button, details on request | Non-Rotating Button, details on request | Non-Rotating Button, details on request |

Low Profile Brass Chrome Plated Vandal Resistant

FRONT PANEL MOUNTING



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



| Specification | MPB037 |
|--------------------------------|--|
| Terminations: | Screw Terminals |
| Switching: | S.P. Push to make Momentary action |
| Max. Rating: | 1A, 50V |
| Contact Resistance: | <10mΩ |
| Insulation Resistance: | >10 ⁵ MΩ |
| Dielectric Strength: | >1.0kV a.c. |
| Operating Temp. Range: | -20°C to +70°C |
| Sealing (Front of panel only): | Protection Classification: IP68 EN60529 1992 (Terminals not sealed) |
| Operations | |
| Mechanical: | 1,000,000 (min) |
| Electrical: | 30,000 (min) |
| Operating Pressure: | 7.5N (typ) |
| Rear Nut Fixing Torque: | 0.57Nm |
| Materials | |
| Mouldings: | Glass Filled Nylon |
| Tags/Terminations: | Brass, Silver Plated |
| Switch Body & Button: | Brass, Chrome Plated |
| Contacts: | Brass, Silver Plated, Silver |
| Variants: | |

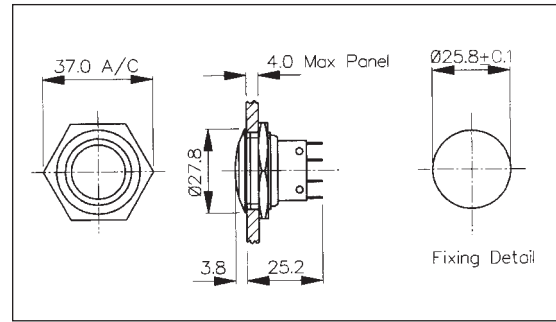
Stainless Steel Domed Vandal Resistant

FRONT PANEL MOUNTING



MP0027/3

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

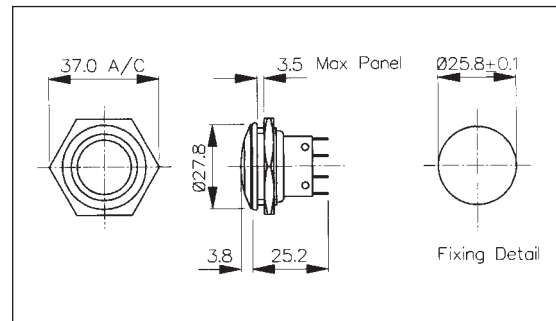


FRONT PANEL MOUNTING



MP0038/3
Sealed to IP66

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

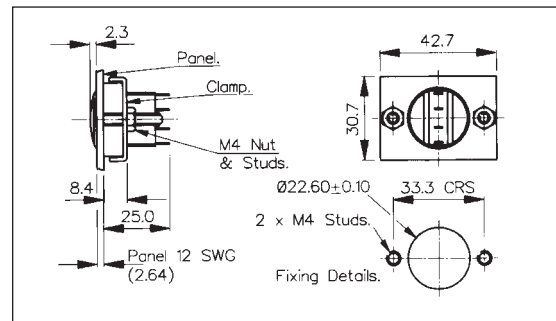


REAR PANEL MOUNTING



MP0025/3

- 22mm diameter
- Domed Profile
- S.P.C.O. Microswitch
- 5A, 250V a.c.



| Specification | MP0027/3 | MP0038/3 | MP0025/3 |
|--------------------------------|---|--|---|
| Terminations: | Solder Tags | Solder Tags | Solder Tags |
| Switching: | S.P.C.O. Momentary Action (Microswitch) | S.P.C.O. Momentary Action (Microswitch) | S.P.C.O. Momentary Action (Microswitch) |
| Max. Rating: | 5A, 250V a.c. | 5A, 250V a.c. | 5A, 250V a.c. |
| Contact Resistance: | <10mΩ | <10mΩ | <10mΩ |
| Insulation Resistance: | >10 ³ MΩ | >10 ³ MΩ. | >10 ³ MΩ |
| Dielectric Strength: | >2.0kV a.c. | >2.0kV a.c. | >2.0kV a.c. |
| 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 1992 (Micro switch not sealed) | |
| Operations | | | |
| Mechanical: | 1,00,000 (min) | 1,000,000 (min) | 1,000,000 (min) |
| Electrical: | 35,000 (min) | 35,000 (min) | 35,000 (min) |
| Operating Pressure: | 7.5N (typ) | 12.5N (typ) | 6.1N (typ) |
| Rear Nut Fixing Torque: | 2.5Nm | 1.13Nm | - |
| 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: | Stainless Steel | Stainless Steel | Stainless Steel |
| Contacts: | Fine Silver | Fine Silver | Fine Silver |
| Variants: | Non-Rotating Button, details on request | Non-Rotating Button, details on request | Non-Rotating Button, details on request |

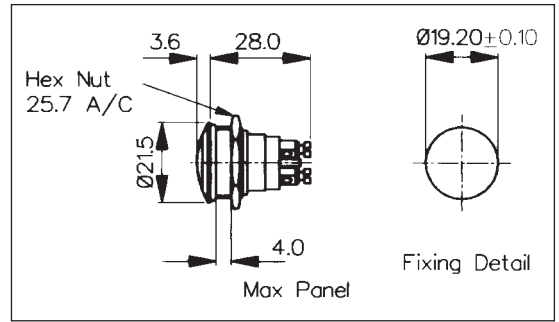
Stainless Steel Domed Vandal Resistant

FRONT PANEL MOUNTING



MP0037/3
Sealed to IP68

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

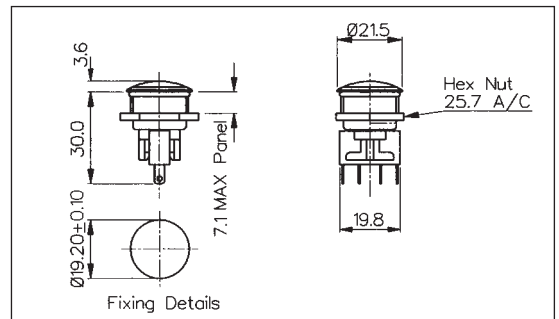


FRONT PANEL MOUNTING



MP0031/3
Sealed to IP66

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

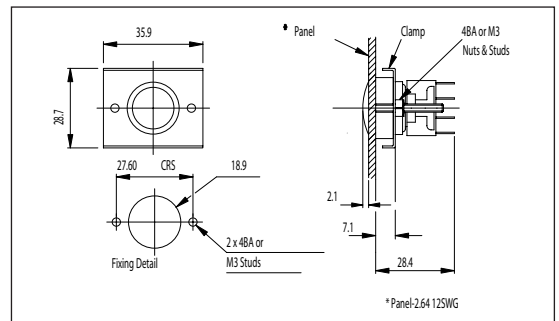


REAR PANEL MOUNTING



MP0034/3

- Rear Panel Mounting
- 19mm diameter
- Domed Profile
- S.P.C.O. Microswitch
- 5A, 250V a.c.



| Specification | MP0037/3 | MP0031/3 | MP0034/3 |
|--------------------------------|--|---|--|
| Terminations: | Screw Terminals | Solder Tags | Solder Tags |
| Switching: | S.P. Push to make Momentary action | S.P.C.O. Momentary Action (Microswitch) | S.P.C.O. Momentary Action (Microswitch) |
| Max. Rating: | 1A, 50V | 5A, 250V a.c. | 5A, 250V a.c. |
| Contact Resistance: | <10mΩ | <10mΩ | <10mΩ |
| Insulation Resistance: | >10 ⁵ MΩ | >10 ³ MΩ. | >10 ³ MΩ |
| Dielectric Strength: | >1.0kV a.c. | >2.0kV a.c. | >2.0kV a.c. |
| 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: IP68 EN60529 1992 (Terminals not sealed) | Protection Classification: IP66 EN60529 1992 (Micro switch not sealed) | - |
| Operations | | | |
| Mechanical: | 1,000,000 (min) | 1,000,000 (min) | 250,000 (min) |
| Electrical: | 30,000 (min) | 35,000 (min) | 35,000 (min) |
| Operating Pressure: | 7.5N | 4.7N (typ) | 2.7N (typ) |
| Rear Nut Fixing Torque: | 0.57Nm | 0.57Nm | - |
| Materials | | | |
| Mouldings: | Glass Filled Nylon | Glass Filled Nylon | Glass Filled Nylon |
| Tags/Terminations: | Brass, Silver Plated | Brass, Tin Plated | Brass, Tin Plated |
| Switch Body & Button: | Stainless Steel | Stainless Steel | Stainless Steel |
| Contacts: | Brass, Silver Plated, Silver | Fine Silver | Fine Silver |
| Variants: | | Non-Rotating Button, details on request | |

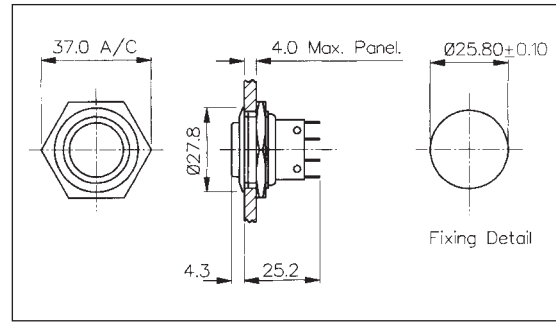
Stainless Steel Prominent Button Vandal Resistant

FRONT PANEL MOUNTING



MP0027/2

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

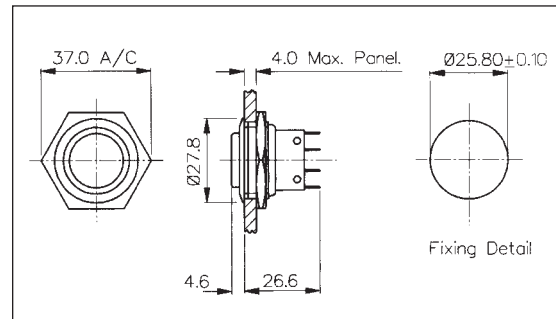


FRONT PANEL MOUNTING



MP0038/2
Sealed to IP66

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

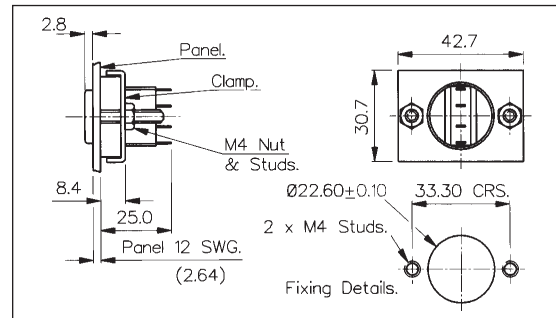


REAR PANEL MOUNTING



MP0025/2

- 22mm diameter
- Prominent Button
- S.P.C.O. Microswitch
- 5A, 250V a.c.



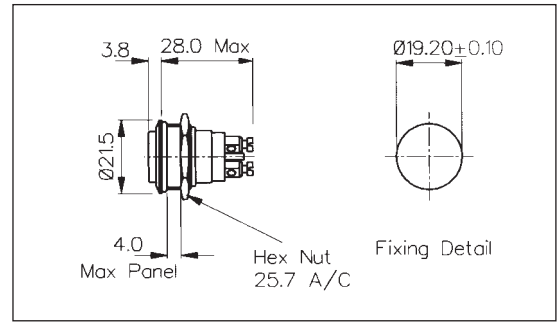
| Specification | MP0027/2 | MP0038/2 | MP0025/2 |
|--------------------------------|--|--|--|
| Terminations: | Solder Tags | Solder Tags | Solder Tags |
| Switching: | S.P.C.O. Momentary Action (Microswitch) | S.P.C.O. Momentary Action (Microswitch) | S.P.C.O. Momentary Action (Microswitch) |
| Max. Rating: | 5A, 250V a.c. | 5A, 250V a.c. | 5A, 250V a.c. |
| Contact Resistance: | <10mΩ | <10mΩ | <10mΩ |
| Insulation Resistance: | >10 ³ MΩ | >10 ³ MΩ. | >10 ³ MΩ |
| Dielectric Strength: | >2.0kV a.c. | >2.0kV a.c. | >2.0kV a.c. |
| 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 1992 (Micro switch not sealed) | - |
| Operations | | | |
| Mechanical: | 1,000,000 (min) | 1,000,000 (min) | 1,000,000 (min) |
| Electrical: | 35,000 (min) | 35,000 (min) | 35,000 (min) |
| Operating Pressure: | 7.5N (typ) | 12.5N (typ) | 6.1N (typ) |
| Rear Nut Fixing Torque: | 2.5Nm | 1.13Nm | - |
| 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: | Stainless Steel | Stainless Steel | Stainless Steel |
| Contacts: | Fine Silver | Fine Silver | Fine Silver |
| Variants: | Engraved Button, Non-Rotating Button, details on request | Engraved Button, Non-Rotating Button, details on request | Engraved Button, Non-Rotating Button, details on request |

Stainless Steel Prominent Button Vandal Resistant

FRONT PANEL MOUNTING



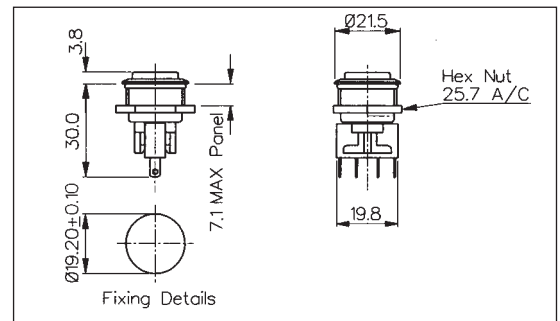
- Front Panel Sealed to IP68
- 21.5mm diameter
- Prominent Button
- S.P. Push to Make
- 1A, 50V



FRONT PANEL MOUNTING



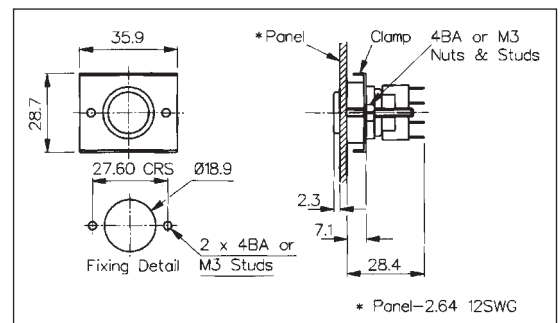
- Front Panel Sealed to IP66
- 21.5mm diameter
- Prominent Button
- S.P.C.O. Microswitch
- 5A, 250V a.c.



REAR PANEL MOUNTING



- 19mm diameter
- Prominent Button
- S.P.C.O. Microswitch
- 5A, 250V a.c.



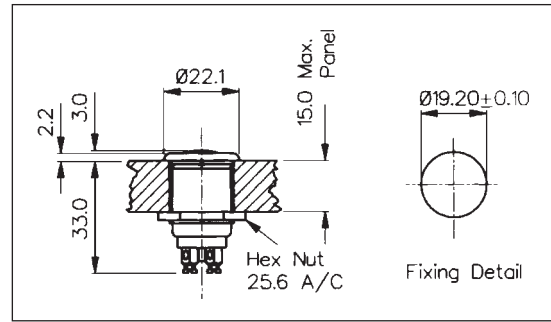
| Specification | MP0037/2 | MP0031/2 | MP0034/2 |
|--------------------------------|---|--|--|
| Terminations: | Screw Terminals | Solder Tags | Solder Tags |
| Switching: | S.P. Push to make Slow momentary action | S.P.C.O. Momentary Action (Microswitch) | S.P.C.O. Momentary Action (Microswitch) |
| Max. Rating: | 1A, 50V | 5A, 250V a.c. | 5A, 250V a.c. |
| Contact Resistance: | <10mΩ | <10mΩ | <10mΩ |
| Insulation Resistance: | >10 ⁵ MΩ | >10 ³ MΩ. | >10 ³ MΩ |
| Dielectric Strength: | >1.0kV a.c. | >2.0kV a.c. | >2.0kV a.c. |
| 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: IP68 EN60529 1992 (Terminals not sealed) | Protection Classification: IP66 EN60529 1992 (Micro switch not sealed) | - |
| Operations | | | |
| Mechanical: | 1,000,000 (min) | 1,000,000 (min) | 250,000 (min) |
| Electrical: | 30,000 (min) | 35,000 (min) | 35,000 (min) |
| Operating Pressure: | 7.5N (typ) | 4.7N (typ) | 2.7N (typ) |
| Rear Nut Fixing Torque: | 0.57Nm | 0.57Nm | - |
| Materials | | | |
| Mouldings: | Glass Filled Nylon | Glass Filled Nylon | Glass Filled Nylon |
| Tags/Terminations: | Brass, Silver Plated | Brass, Tin Plated | Brass, Tin Plated |
| Switch Body & Button: | Stainless Steel | Stainless Steel | Stainless Steel |
| Contacts: | Brass, Silver Plated, Silver | Fine Silver | Fine Silver |
| Variants: | - | Engraved Button, Non-Rotating Button, details on request | Engraved Button, Non-Rotating Button, details on request |

Push Button

FRONT PANEL MOUNTING



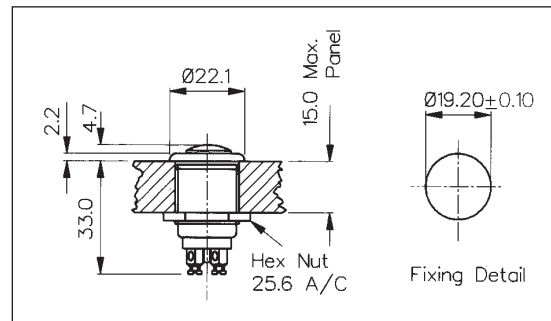
- Proud Fitting
- 22mm diameter
- S.P. Push to Make
- 1A, 50V
- Brass, Chrome Plated Body, Stainless Steel Button
- MP0033 Internally Sealed



FRONT PANEL MOUNTING



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



| Specification | 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, 50V a.c. | 1A, 50V a.c. |
| Contact Resistance: | <15mΩ | <15mΩ |
| Insulation Resistance: | >10 ⁴ MΩ | >10 ⁴ MΩ |
| Dielectric Strength: | >2.5kV a.c. | >2.5kV a.c. |
| 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 | MP0033/2 only - internally sealed against ingress of water and dust |
| 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 |
| Variants: | | |

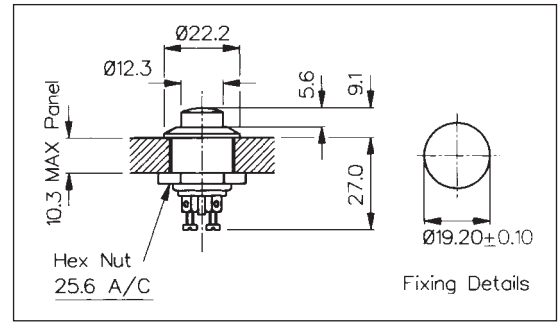
Push Button

FRONT PANEL MOUNTING



MP0012/Col

- 22mm diameter
- Prominent Button
- S.P. Push to Make
- Screw Terminals
- Brass, Chrome Plated Body, Glass Filled Nylon Button

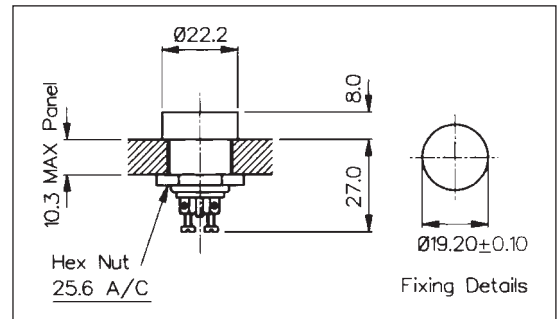


FRONT PANEL MOUNTING



MP0012/1/Col

- 22mm diameter
- Recessed Button
- S.P. Push to Make
- Screw Terminals
- Brass, Chrome Plated Body, Glass Filled Nylon Button

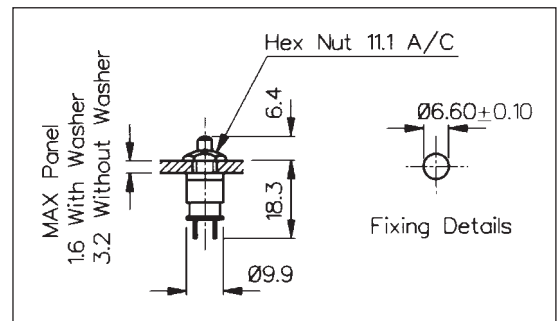


REAR PANEL MOUNTING



MP0016

- S.P. Push to Make
- Solder Tags
- 1A, 28V a.c./d.c.
- Brass Nickel Plated Body, Glass Filled Nylon Button



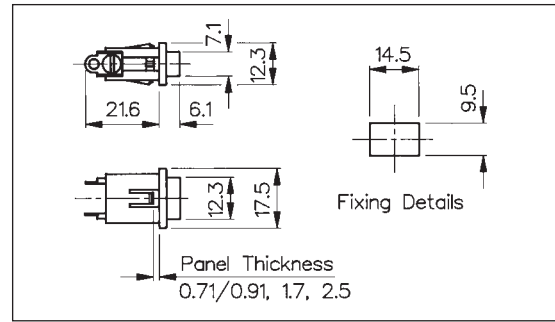
| Specification | MP0012/Colour | MP0012/1/Colour | MP0016/Colour |
|------------------------|---|---|---|
| Terminations: | Screw Terminals | Screw Terminals | Solder Tags |
| Switching: | S.P. Push to Make Slow Momentary Action | S.P. Push to Make Slow Momentary Action | S.P. Push to Make Slow Momentary Action |
| Max. Rating: | 0.25A. 250V a.c., 1A. 110V a.c., 2A. 12V a.c./d.c. | 0.25A. 250V a.c., 1A. 110V a.c., 2A. 12V a.c./d.c. | 1A 28V a.c./d.c. (non-inductive) |
| Contact Resistance: | <15mΩ | <15mΩ | <15mΩ |
| Insulation Resistance: | >10 ⁴ MΩ | >10 ⁴ MΩ. | >10 ⁴ MΩ |
| Dielectric Strength: | >2.5kV a.c. | >2.5kV a.c. | >2.0kV a.c. |
| Operating Temp. Range: | -20°C to +85°C | -20°C to +85°C | -20°C to +85°C |
| Materials: | | | |
| Moulding: | Glass Filled Nylon | Glass Filled Nylon | Glass Filled Nylon |
| Body: | Brass, Chrome Plated | Brass, Chrome Plated | Brass, Chrome Plated |
| Contacts/Terms: | Brass, Silver Plated | Brass, Silver Plated | Brass, Silver Plated |
| Variants: | Button Colour: Standard - Black, /RD (Red) | Button Colour: Standard - Black, /RD (Red) | Button Colour: Standard - Black, /RD (Red) |

Push Button

FRONT PANEL MOUNTING



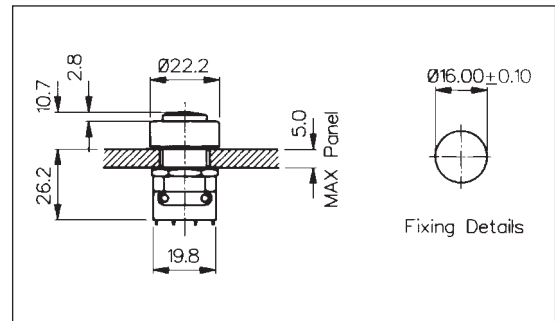
- S.P. Push to Make
- Solder Tags
- Nylon Body & Button



FRONT PANEL MOUNTING



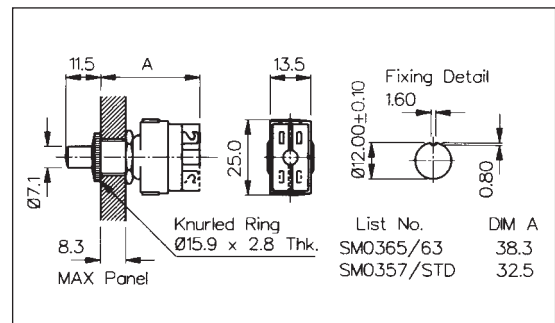
- Front Panel Sealed to IP66
- S.P.C.O. Microswitch
- Solder Tags
- 5A, 250V a.c.
- Black Anodised Aluminium Body
- Black, red or green Buttons



REAR PANEL MOUNTING



- SM0357 S.P.C.O.
- SM0365 S.P.M.B.
- Solder Tags
- SM0357 - 2A, 250V a.c.
- SM0365 - 3A, 250V a.c.



| Specification | MP0022/Colour | SX0904/Colour | SM0357, SM0365 |
|------------------------|--|---|--|
| Terminations: | Solder Tags | Solder Tags | Solder Tags |
| Switching: | S.P. Push to Make Slow Momentary Action | S.P.C.O. Momentary Action (Microswitch) | SM0357 S.P.C.O. 2 pairs contacts SM0365 S.P.M.B. push to make 1 pair contacts |
| Max. Rating: | 0.25A. 250V a.c., 0.5A. 110V a.c., 1A. 0.1 to 28V a.c./d.c. | 5A. 250V a.c. | SM0357 2A, 250V a.c. SM0365 3A, 250V a.c. |
| Contact Resistance: | <15mΩ | <10mΩ | <10mΩ |
| Insulation Resistance: | >10 ⁴ MΩ | >10 ³ MΩ. | >10 ³ MΩ |
| Dielectric Strength: | >2.5kV a.c. | >2.0kV a.c. | >4.5kV a.c. |
| Operating Temp. Range: | -20°C to +70°C | -20°C to +70°C | -20°C to +70°C |
| Sealing: | | Protection Classification IP66 BS5490 1992 (Microswitch not sealed) | |
| Materials: | | | |
| Moulding: | Nylon | Glass Filled Nylon | Phenolic |
| Tags: | Brass, Silver Plated | Brass, Tin Plated | Brass, Silver Plated |
| Body: | Nylon | Black anodised aluminium | Steel, Zinc Plated |
| Contacts/Terms: | Brass, Silver Plated | Fine Silver | Brass, Silver Plated |
| Variants: | Button Colours: Standard - Black, /WH (White) and /RD (Red). /TERM - (Screw terminals) | Button Colours: Standard - Black, /RD (Red) and /GN (Green). /28 (2.8mm tabs) | /TERM (Screw Terminals), /63 (6.3mm tabs) - (SM0365 only) |

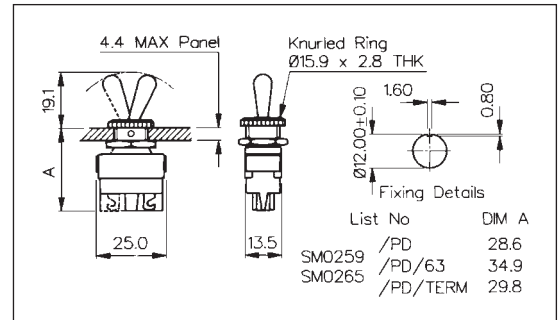
Toggle

SINGLE POLE



SM0259/PD

- SM0259/PD - S.P.M.B.
SM0265/PD - S.P.C.O.
- Solder tags, 6.3mm tabs or Screw Terminals (SM0259)
- SM0259/PD - 3A, 250V a.c.
SM0265/PD - 2A, 250V a.c.

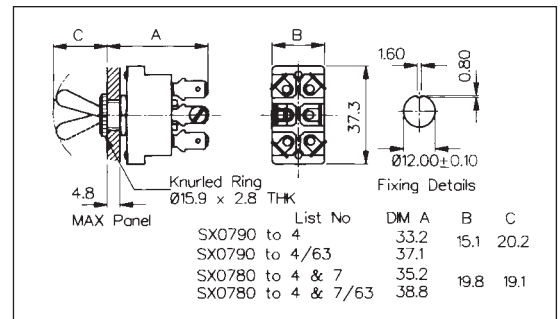


SINGLE POLE



SX0790

- 6.3mm tabs or Screw Terminals
- 10A, 250V a.c.



| Single Pole List No. | Description | 1 | 2 | 3 |
|----------------------|--|-----|-----|----|
| SX0790 | Change-over. Centre off | ON | OFF | ON |
| SX0791 | Change-over. Centre off One position biased off | ON | OFF | ON |
| SX0792 | Change-over. Centre off Two position biased off | ON | OFF | ON |
| SX0793 | Change-over Two positions only | ON | - | ON |
| SX0794 | ON/OFF Two positions only | OFF | - | ON |

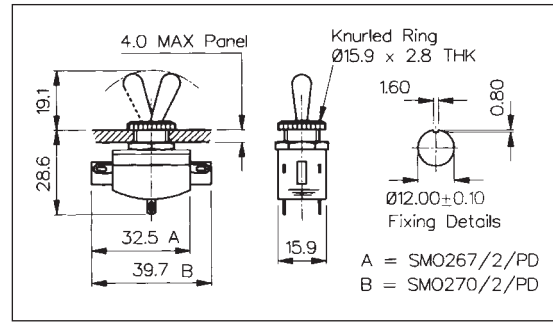
| Specification | SM0259/PD, SM0265/PD | SX0790 Series |
|------------------------|---|---|
| Terminations: | Solder Tags | Screw Terminals |
| Switching: | SM0259/PD S.P.M.B. 1 pair of contacts (Quick Make/Break) SM0265/PD S.P.C.O. 2 pairs of contacts (Quick Make/Break) | See table for types Slow Make, Slow Break |
| Max. Rating: | SM0259/PD 3A, 250V a.c. SM0265/PD 2A, 250V a.c. | 10A, 250V a.c. 10A, 0-28V d.c. (non-reactive circuits) |
| Contact Resistance: | <10mΩ | <10mΩ |
| Insulation Resistance: | >10 ³ MΩ | >10 ³ MΩ |
| Dielectric Strength: | >4.5kV a.c. | >2.5kV a.c. |
| Operating Temp. Range: | -20°C to +70°C | -20°C to +85°C |
| Materials: | | |
| Mouldings: | Phenolic | Glass Filled Polyester |
| Tags: | Brass, Silver Plated | Brass, Silver Plated |
| Contacts: | Brass, Silver Plated | Copper with Silver face |
| Variants: | /TERM (Screw Terminals) - /63 (6.3mm tabs) - (SM0259/PD only) | /63 (6.3mm tabs) - (except SX0791) |
| Accessories: | SX0550 (see page 175) | SX0550 (see page 175) |

Toggle

DOUBLE POLE



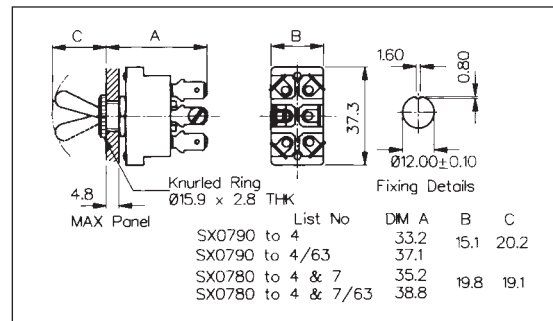
- SM0267/2/PD - D.P.M.B
SM0270/2/PD - D.P.C.O
- Solder tags
- 2A, 250V a.c.



DOUBLE POLE



- 6.3mm tabs or Screw Terminals
- 10A, 250V a.c.



| Double Pole List No. | Description | 1 | 2 | 3 |
|----------------------|---|-----|-----|----|
| SX0780 | Change-over. Centre off | ON | OFF | ON |
| SX0782 | Change-over. Centre off Two position biased off | ON | OFF | ON |
| SX0783 | Change-over Two positions only | ON | - | ON |
| SX0784 | ON/OFF Two positions only | OFF | - | ON |
| SX0787 | Change-over. Two positions only biased to one position | ON | - | ON |

| Specification | SM0267/2/PD, SM0270/2/PD | SX0780 Series |
|------------------------|--|---|
| Terminations: | Solder Tags | Screw Terminals |
| Switching: | SM0267/2/PD - D.P.M.B. 2 pairs of contacts SM0270/2/PD - D.P.C.O. 3 pairs of contacts (Quick Make/Break) | See table for types Slow Make, Slow Break |
| Max. Rating: | 2A, 250V a.c. | 10A, 250V a.c. 10A, 0-28V d.c. (non-reactive circuits) |
| Contact Resistance: | <10mΩ | <10mΩ |
| Insulation Resistance: | >10 ³ MΩ | >10 ³ MΩ |
| Dielectric Strength: | >3.5kV a.c. | >2.5kV a.c. |
| Operating Temp. Range: | -20°C to +70°C | -20°C to +85°C |
| Materials: | | |
| Mouldings: | Phenolic | Glass Filled Polyester |
| Tags: | Copper, Silver Plated | Brass, Silver Plated |
| Contacts/Terms: | Copper Silver Alloy | Copper with Silver face |
| Variants: | - | /63 (6.3mm tabs) |
| Accessories: | SX0550 (see page 175) | SX0550 (see page 175) |

PVC BOOT



- PVC Boot
- Water and Dust Resistant
- Glass Filled Nylon or Brass, Nickel Plated Insert
- For use with all Bulgin /PD Toggle Switches

SX0550

SILICON RUBBER BOOT



- Completely Covers Toggle
- Brass, Nickel Plated Insert

NX1030

SILICON RUBBER BOOT



- Switch Toggle Protrudes
- Brass, Nickel Plated Insert

NX1030/B

| Specification | SX0550, SX0550/Brass | NX1030, NX1030/B |
|------------------------|---|---|
| | Water and dust resistant Black PVC cover for use with all Bulgin /PD switches | NX1030 Completely covers toggle NX1030/B Switch toggle protrudes |
| Thread: | 15/32" x 32 TPI. Whit Form, BS84 | 15/32" - 32NS - 2B |
| Operating Temperature: | 0°C to +60°C | -70° to +205°C |
| Materials: | | |
| Boot: | Black PVC | Silicone rubber |
| Inserts: | Glass Filled Nylon SX0550/BRASS: Brass, Nickel Plated | Brass, Nickel Plated |

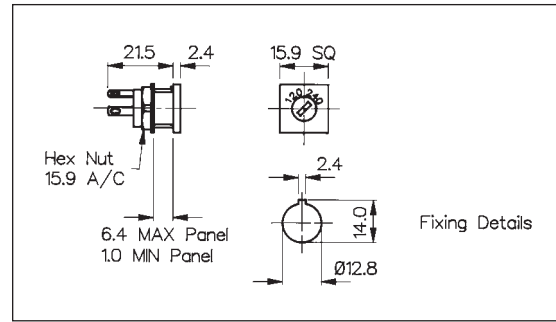
Voltage Selectors

120/240V VOLTAGE SELECTOR



VS0001

- 2.8 series tabs/solder tags
- Square Front Bezel
- 6.3A
- CSA, SEMKO & VDE approvals

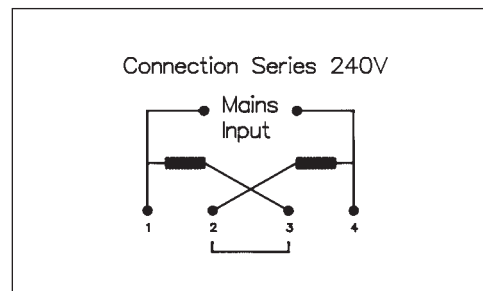
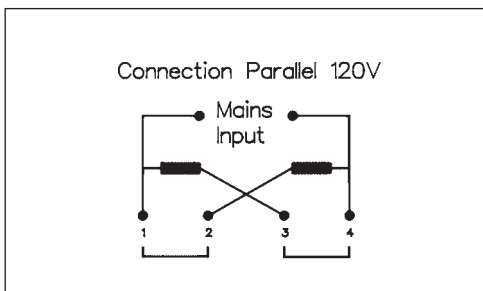
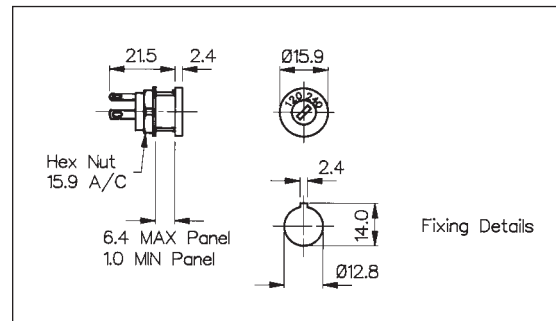


120/240V VOLTAGE SELECTOR



VS0002

- 2.8 series tabs/Solder tags
- Round Front Bezel
- 6.3A
- CSA, SEMKO & VDE approvals



| Specification | VS0001 | VS0002 |
|------------------------|------------------------------------|------------------------------------|
| Max. Rating: | 6.3A, 120/240V | 6.3A, 120/240V |
| Insulation Resistance: | > 10 ⁶ MΩ | > 10 ⁶ MΩ. |
| Termination: | 2.8 series tabs/solder tags | 2.8 series tabs/solder tags |
| Temperature Range: | -20°C to +85°C | -20°C to +85°C |
| Materials: | | |
| Mouldings: | Glass Filled Nylon UL94V-1 | Glass Filled Nylon UL94V-1 |
| Tags: | Brass, Silver Plated | Brass, Silver Plated |
| Contacts: | Copper Silver Alloy | Copper Silver Alloy |
| Approvals: | | |
| Variants: | Other markings, details on request | Other markings, details on request |