

Switch Range

Product Catalogue

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With an extensive range of Push Button, Vandal Resistant, Piezo, Slide, Toggle and Rocker switches available, Bulgin & Arcolectric's switch range is designed to meet the design requirements of a wide variety of industry applications ranging from medical and industrial to marine and commercial electronics.

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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



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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

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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

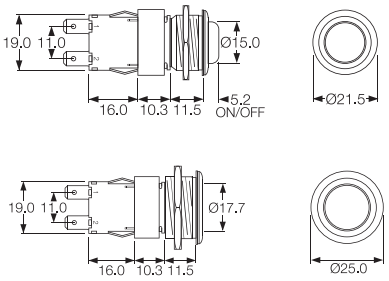
12A 250Vac DP, 13A 250Vac SP
250Vac 1hp, 125Vac 1/2hp
UL 85°C, file E45221

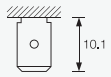
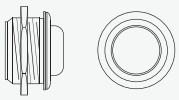
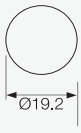
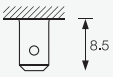
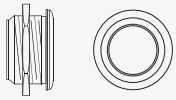
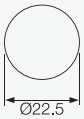
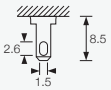
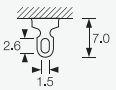
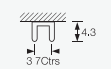
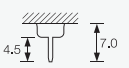
In house test:
10(10)A 250Vac—Indicative rating only

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) 	**P** (for R actuator only) Stainless steel, Soft profile bezel 
H 	**8301** (momentary ON) Single Contact ON - OFF 	**V** Flat top (stainless steel) 	**M** Stainless steel 
K 	**8350** (alternate) Double Contact ON - OFF 		
T 	**8351** (momentary ON) Double Contact ON - OFF 		
V 			
X 			

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0911 Vandal Resistant Switches

Designed to IP66



C0911VA - - -

Key Features

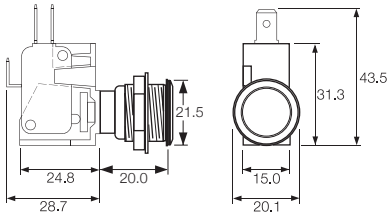
- Snap action switches
- Ratings up to 16A, 250Vac
- Round and rectangular buttons
- Single Contact C/O Switch

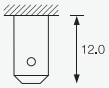
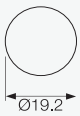
Approvals and specifications

Approvals apply to switch mechanism only.
µ contact gap.

Dimensions

C0911VA



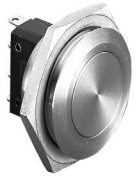
Terminal	Function	Actuator	Body Code
	**0911** (momentary) ON - ON 	**V** Flat top (stainless steel) 	**A** Stainless steel Chamfer profile bezel  Panel cut-out Panel thickness up to 8.0mm

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Stainless Steel Low Profile Vandal Resistant

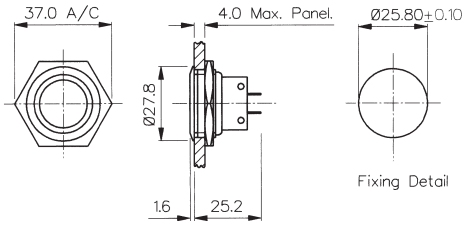
Momentary

Front Panel Mounting



MP0027

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

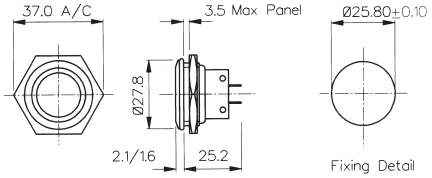


Front Panel Mounting



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

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Stainless Steel Low Profile Vandal Resistant

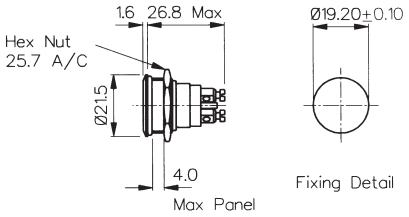
Momentary

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

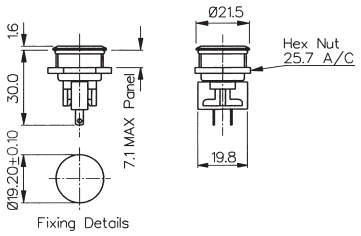


Front Panel Mounting



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

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Stainless Steel Illuminated Vandal Resistant

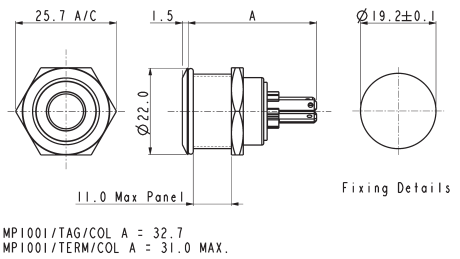
LED

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)

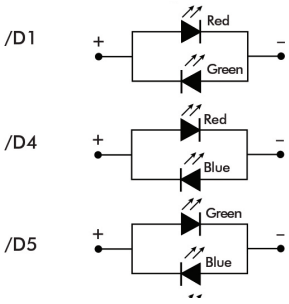
Part No.	/RD	/GN	/AM	/BL	/WH	/D1	/D4	/D5
Colours	Red	Green	Amber	Blue	White	Red/Green	Red/Blue	Green/Blue
Luminous Intensity	900mcd	2500mcd	900mcd	1500mcd	900mcd	2500mcd/5000mcd	2000mcd/850mcd	4000mcd/2000mcd
Forward Voltage	1.85V	3.5V	2.3V	3.5V	3.6V	2.05V/3.6V	2.0V/3.6V	3.6V/3.6V
Forward Current	20mA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

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



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Stainless Steel Illuminated Vandal Resistant

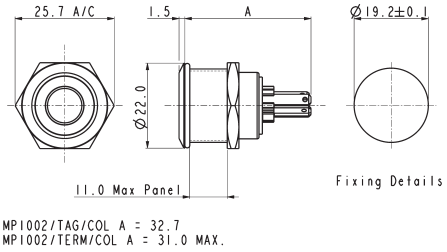
LED

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

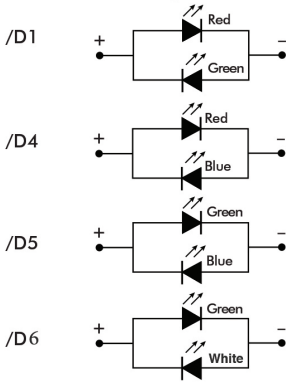
Illumination style:	Ring
Terminations:	/28 (2.8mm tabs), /TERM or /TE (screw terminals)
Switching:	Single Contact, push to make, tactile (momentary action)
Max. Switch Rating:	50mA, 24Vdc

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



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Stainless Steel Illuminated Vandal Resistant

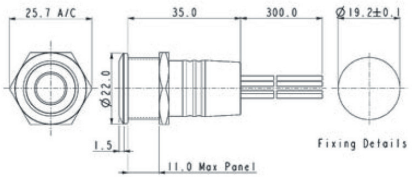
Rear of panel IP66 seal

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



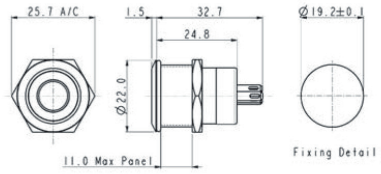
Flying lead colours: LED: red + and black –. Switch contacts: white.

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				

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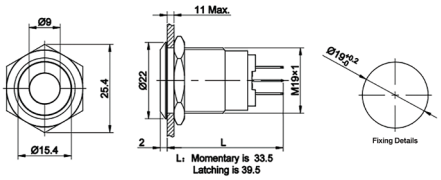
19mm Stainless Steel Illuminated Vandal Resistant

Low Profile

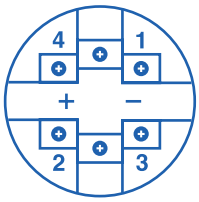


MPI005

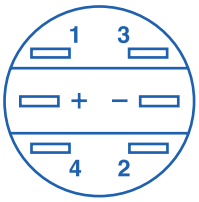
- 22mm bezel diameter
- 19.2mm ± 0.2mm fixing hole diameter
- S.P.C.O



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

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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

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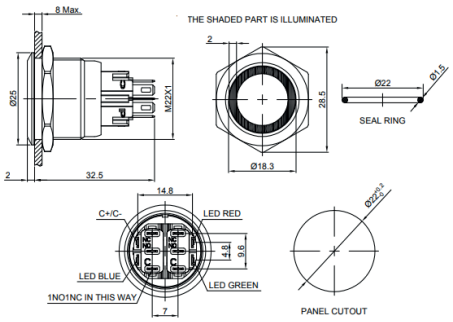
MP22 Illuminated Vandal Resistant Switch

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



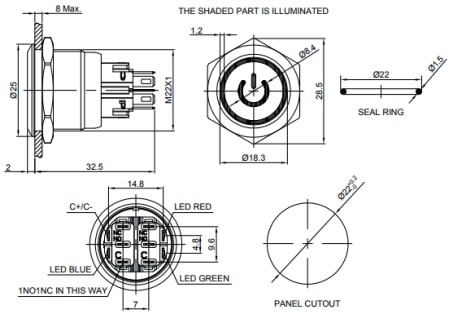
Ring Illuminated								
Series	Contact Structure	Operation	Illumination	Common Pin	LED Colour	LED Voltage	Shell Material	IP Rating
MP22	S - SPDT	L - Latching	QR - RGB Ring Illuminated	CC - Cathode	Q - RGB	006 - 6V	S - Stainless steel	5 - IP65
	D - DPDT	M - Momentary		AC - Anode		012 - 12V	A - Black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

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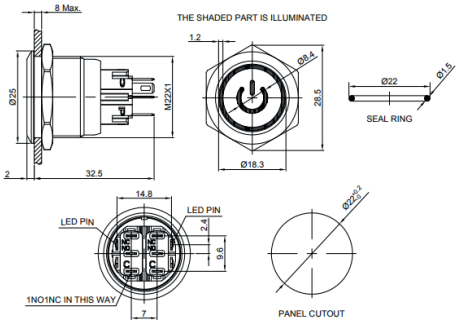
MP22 Illuminated Vandal Resistant Switch

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

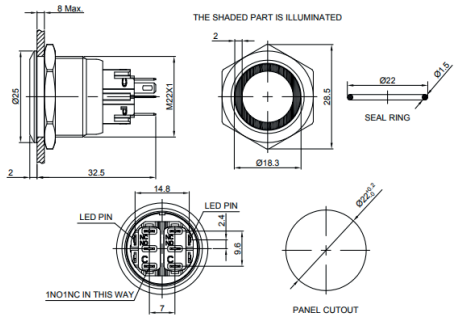
Series	Contact Structure	Operation	Illumination	Common Pin	LED Colour	LED Voltage	Shell Material	IP Rating
MP22	S - SPDT	L - Latching	PI - Power symbol Illuminated	NR - Not applicable	R - Red	006 - 6V	S - Stainless Steel	5 - IP65
	D - DPDT	M - Momentary			G - Green	012 - 12V	A - Black Aluminium	7 - IP67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

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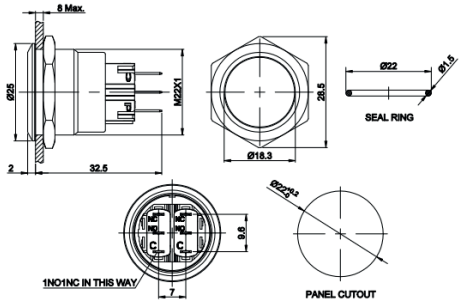
MP22 Non Illuminated Vandal Resistant Switch

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

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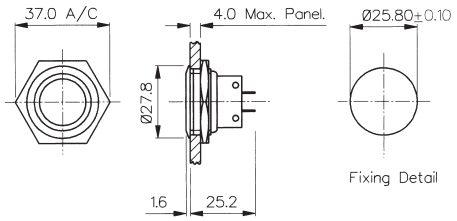
Low Profile Brass Chrome Plated Vandal Resistant

Front Panel Mounting



MPB038
Sealed to IP66

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

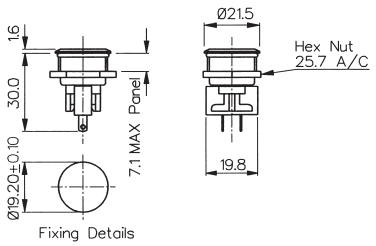


Front Panel Mounting



MPB031
Sealed to IP66

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

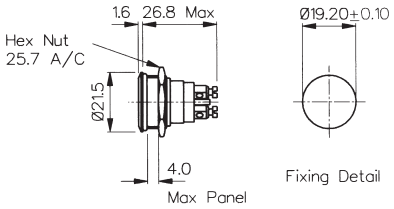


Front Panel Mounting



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

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Stainless Steel Large Diameter Vandal Resistant

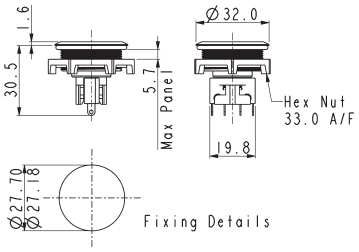
Momentary

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

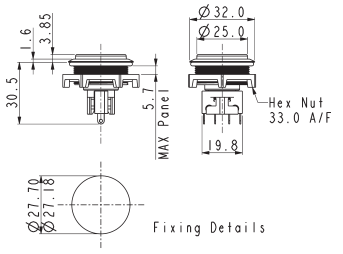


Front Panel Mounting - Protruding Profile



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

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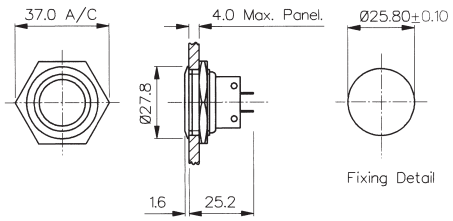
Stainless Steel Domed Vandal Resistant

Front Panel Mounting



MP0027/3

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

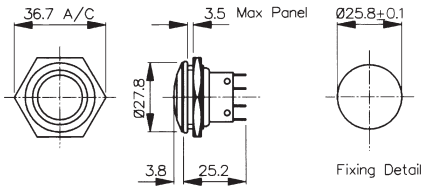


Front Panel Mounting



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: 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	0.747” x 26TPI
RoHS	Compliant	Compliant

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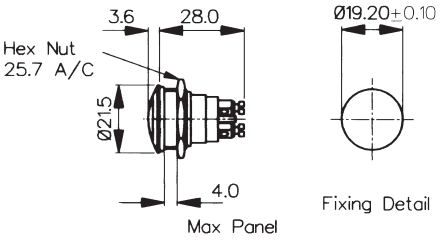
Stainless Steel Domed Vandal Resistant

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

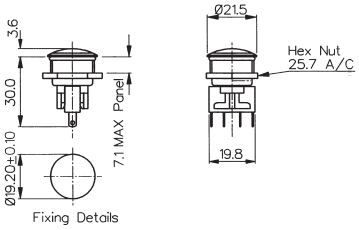


Front Panel Mounting



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

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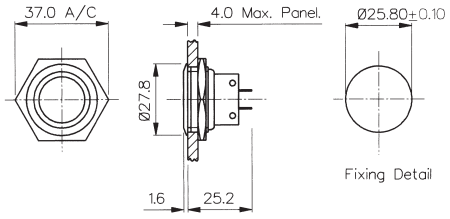
Stainless Steel Prominent Button Vandal Resistant

Front Panel Mounting



MP0027/2

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

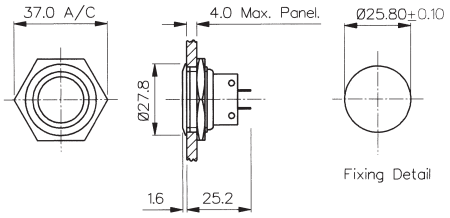


Front Panel Mounting



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

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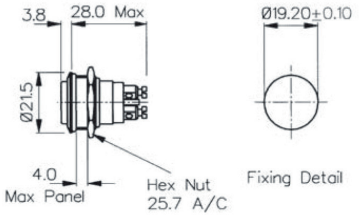
Stainless Steel Prominent Button Vandal Resistant

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

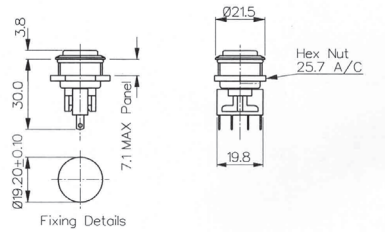


Front Panel Mounting



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

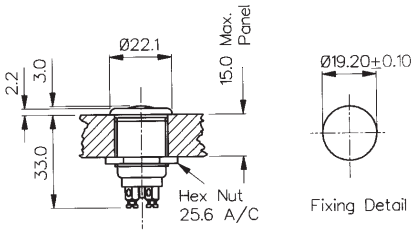
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Front Panel Mounting



MP0013
MP0033

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

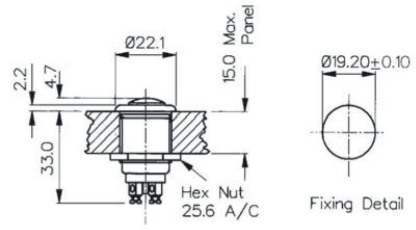


Front Panel Mounting



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:	>10^4 MΩ	>10^4 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: Tags/Terminations: Switch Body & Button:	 Glass Filled Nylon Brass, Silver Plated Body: Brass, Chrome Plated Button: Stainless Steel	 Glass Filled Nylon Brass, Silver Plated Body: Brass, Chrome Plated Button: Stainless Steel
Contacts:	Copper, Silver Plated	Copper, Silver Plated
Thread Size:	0.747” x 26TPI	0.747” x 26TPI
RoHS	Compliant	Compliant

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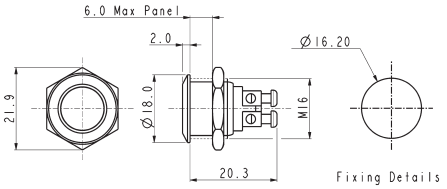
Stainless Steel - Momentary

Flush Profile



MP0042/1

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

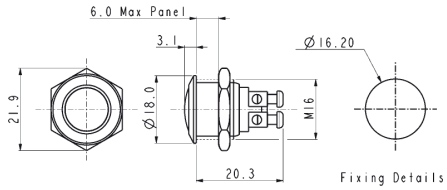


Domed Profile



MP0042/2

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

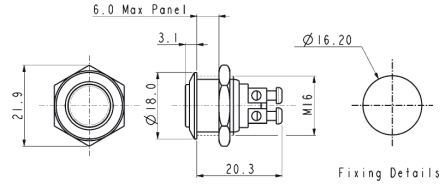


Prominent Button



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:	>10³ MΩ @ 500Vdc	>10³ MΩ @ 500Vdc	>10³ 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: Electrical:	 1,000,000 (min) 100,000 (min)	 1,000,000 (min) 100,000 (min)	 1,000,000 (min) 100,000 (min)
Rear Nut Fixing Torque:	12Nm	12Nm	12Nm
Materials Mouldings: Tags/Terminations: Switch Body & Button:	 Nylon Brass, Silver Plated Stainless Steel (Polished)	 Nylon Brass, Silver Plated Stainless Steel (Polished)	 Nylon Brass, Silver Plated 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
RoHS	Compliant	Compliant	Compliant

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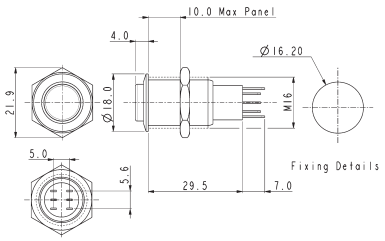
Stainless Steel - Momentary

Low Profile



MP0045/1D

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

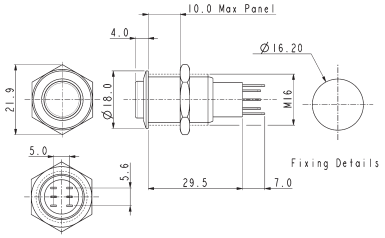


Prominent Button

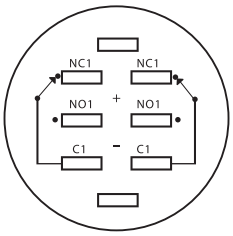


MP0045/3D

- 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: Part No.	IP67 IP40 /S BLANK	IP67 IP40 /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:	>10³ MΩ @ 500Vdc	>10³ MΩ @ 500Vdc
Dielectric Strength:	> 2.0kVac	> 2.0kVac
Operating Temp. Range:	–20°C to +55°C	–20°C to +55°C
Operations Mechanical: Electrical:	 200,000 (min) 30,000 (min)	 200,000 (min) 30,000 (min)
Rear Nut Fixing Torque:	12Nm	12Nm
Materials Mouldings: Tags/Terminations: Switch Body & Button:	 Nylon Brass, Silver Plated Stainless Steel	 Nylon Brass, Silver Plated 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

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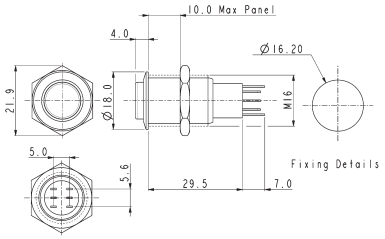
Stainless Steel - Latching

Low Profile



MP0045/1E

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

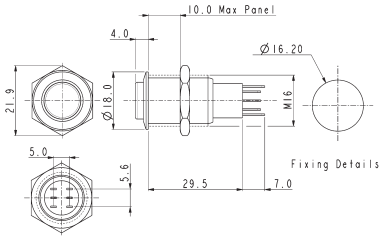


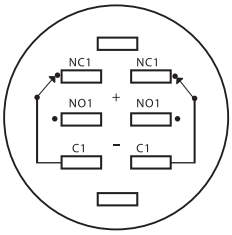
Prominent Button



MP0045/3E

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





Contact Layout

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: Part No.	IP67 IP40 /S BLANK	IP67 IP40 /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:	>10³ MΩ @ 500Vdc	>10³ MΩ @ 500Vdc
Dielectric Strength:	>2.0kVac	>2.0kVac
Operating Temp. Range:	–20°C to +55°C	–20°C to +55°C
Operations Mechanical: Electrical:	 200,000 (min) 30,000 (min)	 200,000 (min) 30,000 (min)
Rear Nut Fixing Torque:	12Nm	12Nm
Materials Mouldings: Tags/Terminations: Switch Body & Button:	 Nylon Brass, Tin Plated Stainless Steel (Polished)	 Nylon Brass, Tin Plated 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

Soldering Instructions:

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

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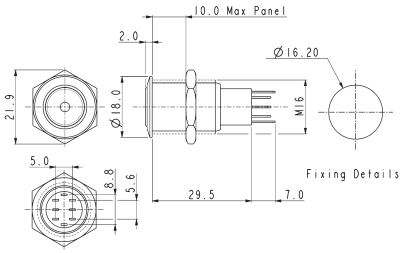
Stainless Steel Illuminated Momentary

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

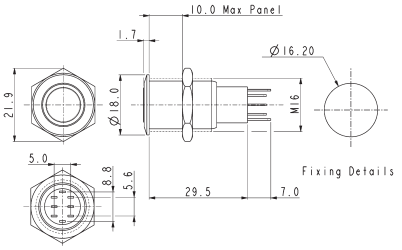


Front Panel Mounting

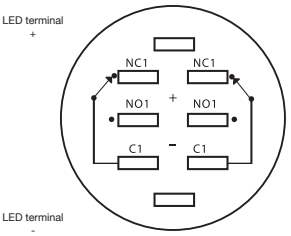


MP0045/1D2

- 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: Part No.	IP67 IP40 /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 Green Amber Blue /RD /GN /AM /BL	 Red Green Amber Blue /RD /GN /AM /BL
Voltage Part No.	12Vdc 220Vdc /012 /220	12Vdc 220Vdc /012 /220
Contact Resistance:	50mΩ max. @ 1A, 2Vdc	50mΩ max. @ 1A, 2Vdc
Insulation Resistance:	>10³ MΩ @ 500Vac	>10³ MΩ @ 500Vac
Dielectric Strength:	>2.0kVac	>2.0kVac
Operating Temp. Range:	–20°C to +55°C	–20°C to +55°C
Operations Mechanical: Electrical:	 200,000 (min) 30,000 (min)	 200,000 (min) 30,000 (min)
Rear Nut Fixing Torque:	12Nm	12Nm
Materials Mouldings: Tags: Switch Body & Button: Variants	 Nylon Brass, Silver Plated Stainless Steel (Polished) 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.

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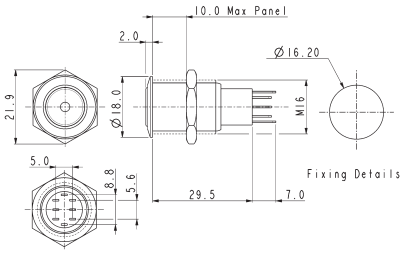
Stainless Steel Illuminated Latching

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

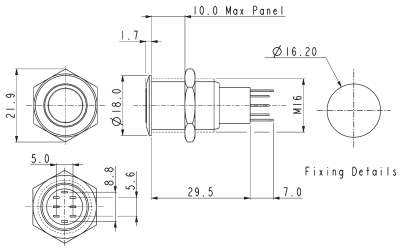


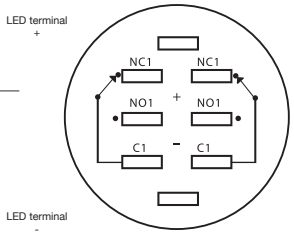
Front Panel Mounting



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





Contact Layout

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: Part No.	IP67 IP40 /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 Green Amber Blue /RD /GN /AM /BL	 Red Green Amber Blue /RD /GN /AM /BL
Voltage Part No.	12Vdc 220Vdc /012 /220	12Vdc 220Vdc /012 /220
Contact Resistance:	50mΩ max. @ 1A, 2Vdc	50mΩ max. @ 1A, 2Vdc
Insulation Resistance:	>10³ MΩ @ 500Vac	>10³ MΩ @ 500Vac
Dielectric Strength:	>2.0kVac	>2.0kVac
Operating Temp. Range:	–20°C to +55°C	–20°C to +55°C
Operations Mechanical: Electrical:	 200,000 (min) 30,000 (min)	 200,000 (min) 30,000 (min)
Rear Nut Fixing Torque:	12Nm	12Nm
Materials Mouldings: Tags: Switch Body & Button: Variants	 Nylon Brass, Silver Plated Stainless Steel (Polished) Prominent Button, details on request	 Nylon Brass, Silver Plated Stainless Steel (Polished) Prominent Button, details on request
RoHS	Compliant	Compliant

Soldering Instructions:

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

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Miniature Stainless Steel Vandal Resistant

Prominent Button / Flush Profile

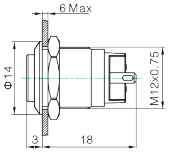
MAV0120



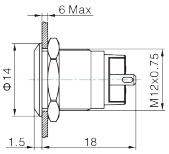
MAV0120/1 MAV0120/3

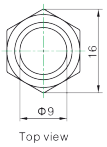
- Prominent and Flush Profile
- 12mm Diameter
- 2A, 36 dc
- IP67 (Front of Panel Only)

Prominent Profile



Flush Profile





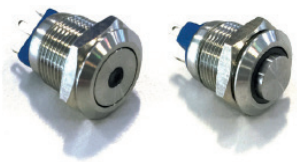
Specification	MAV0120/1	MAV0120/3
Terminations:	P - Solder Tabs	P - Solder Tabs
Switching:	S.P. Push to make	S.P. Push to make
Max Rating:	2A, 36Vdc	2A, 36Vdc
Contact Resistance:	≥50MΩ	≥50MΩ
Insulation Resistance:	≥1000MΩ	≥1000MΩ
Dielectric Strength:	1500V, AC 50Hz, 5 Secs	1500V, AC 50Hz, 5 Secs
Operating Temp Range:	*-25°C ~ +55°C	*-25°C ~ +55°C
Operations		
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
Materials		
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

Downloaded from Arrow.com.

Miniature Stainless Steel Illuminated Vandal Resistant

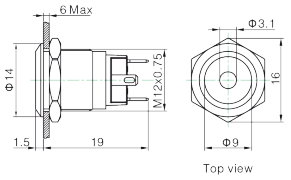
Illuminated traditional

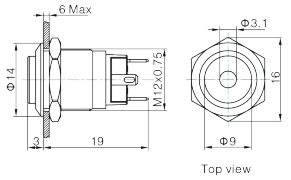
MAV0120

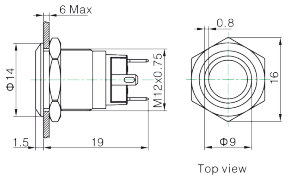


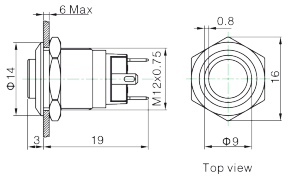
MAV0120

- 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.	/RD	/GN	/BL	/OR	/AM
Colours	Red	Green	Blue	Orange	Yellow
Luminous Intensity					
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

Downloaded from Arrow.com.

Miniature Domed Metal Vandal Resistant

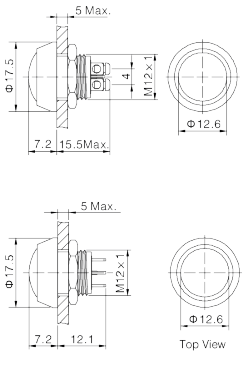
None Illuminated - Metal Dome

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
Operations		
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
Materials		
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

Downloaded from Arrow.com.

Miniature Domed PBT Pushbutton

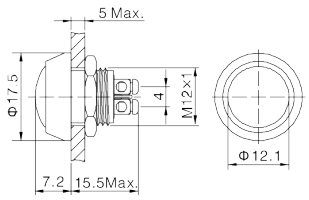
Non Illuminated - PBT

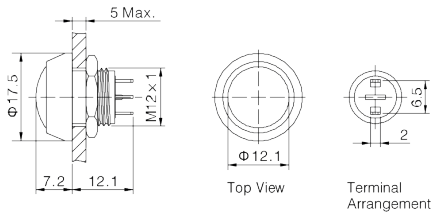
MMP0120/A



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
Operations	
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
Materials	
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

Downloaded from Arrow.com.

Miniature Domed Illuminated Pushbutton

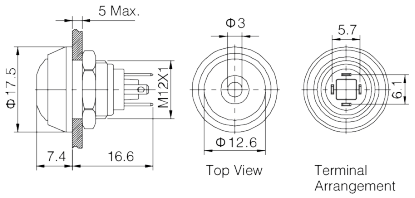
Stainless Steel and PBT

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				

Downloaded from Arrow.com.

12mm Miniature Vandal Resistant Stainless Steel Switch

MAV0120 / X / X / X / X / X

Series	Button	Switching Type	Type of Illumination	Illumination Colour	Lamp Voltage
MAV0120	1 = Flush 3 = Prominent	D = Momentary	Blank = None 1 = Dot 2 = Ring	Blank = None RD = RED GN = GREEN BL = BLUE AM = AMBER/YELLOW OR = ORANGE	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

MMPXXX / X / X / X / X / X / X

Series	Body Material	Button Material & Colour	Sealing	Illumination Colour	Lamp Voltage	Termination
MMP0120 = Non Illuminated MMPI0120 = Illuminated	S = Stainless Steel N = Nickel Plated Brass A = Black Anodized	SS = Stainless Steel NB = Nickel Plated Brass RD = RED PBT GN = GREEN PBT BL = BLUE PBT BK = BLACK PBT	Blank = IP65 67 = IP67 IP67 (non-illuminated only)	Blank = None RD = RED GN = GREEN BL = BLUE AM = AMBER/YELLOW OR = ORANGE	Blank = None 012 = 12V 024 = 24V Other voltages require external resistor	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
MMPI0120/NNBRD012P = 12mm, Illuminated , All Nickel Plated Brass with 12V Red Dot illumination, IP65, Plug Terminals

Downloaded from Arrow.com.

Bulgin's comprehensive range of push-button switches offers versatile solutions for a wide array of design needs. Featuring industry-standard mounting diameters—including 12mm, 16mm, 19mm, 22mm, 25mm, and 27mm cut-outs—and available with IP-rated sealing options, these switches are designed for reliable performance in diverse environments.

With the inclusion of Arcolectric's switch range, we now offer an even greater selection of push-button switches, expanding your options for finding the perfect component for your project.

Features:

- Compact Design Options of miniature, round, and rectangular push-button switches, perfect for applications where space is limited.
- High Power Handling; high ratings up to 16A, 250V AC, with additional options like 12(12)A, 250V AC.
- Versatile Switching Actions; offering latching and momentary actions. Latching switches provide a stable, maintained connection, while momentary switches offer temporary activation.
- Customizable Actuators; a variety of actuators, with custom options available to ensure a perfect fit for unique design requirements.
- Adaptable Mounting Styles; both square and round mounting styles, providing the versatility to integrate these switches seamlessly into different design layouts.



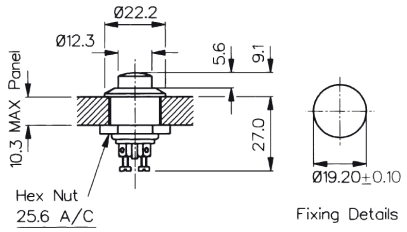
Downloaded from Arrow.com.

Front Panel Mounting



MP0012/Col

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

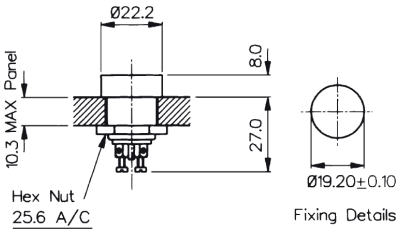


Front Panel Mounting



MP0012/1/Col

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

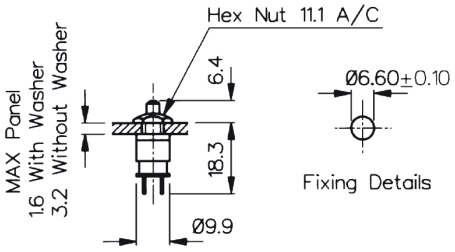


Rear Panel Mounting



MP0016

- S.P. Push to Make
- Solder Tags
- 1A, 28Vac/dc
- Brass Nickel Plated Body, Glass Filled Nylon Button



Specifications	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. 250Vac, 1A. 110Vac, 2A. 12Vac/dc	0.25A. 250Vac, 1A. 110Vac, 2A. 12Vac/dc	1A 28Vac/dc (non-inductive)
Contact Resistance:	<15mΩ	<15mΩ	<15mΩ
Insulation Resistance:	$>10^4$ MΩ	$>10^4$ MΩ	$>10^4$ MΩ
Dielectric Strength:	>2.5kVac	>2.5kVac	>2.0kVac
Operating Temp. Range:	–20°C to +85°C	–20°C to +85°C	–20°C to +85°C
Operation Pressure (typ):	9.18 newtons	9.18 newtons	6.22 newtons
Materials Moulding: Body:	 Glass Filled Nylon Brass, Brass, Chrome Plated	 Glass Filled Nylon Brass, Brass, Chrome Plated	 Glass Filled Nylon Brass, Brass, Chrome Plated
Contacts/Terms:	Brass, Silver Plated	Brass, Silver Plated	Brass, Silver Plated
Variant	Button Colour: Standard - Black, /RD (Red)	Button Colour: Standard - Black, /RD (Red)	Button Colour: Standard - Black, /RD (Red)
RoHS	Compliant	Compliant	Compliant

Downloaded from Arrow.com.

8300 Push Button Range

8(8)A 250Vac & 12(12)A 250Vac



Key Features

- Miniature push button
- 8A Inductive current rating
- Ratings up to 12(12)A, 250V ac (H suffix)
- Illuminated and nonillumi-nated
- Single and double Contact
- Latching and momentary
- Slotted actuator for custom buttons
- Industry standard panel cutout
- Panel cut out: 19.3 x 12.9

Approvals and specifications

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

8350, 8351, 8353, 8354
12A 250Vac DP, 250Vac 1hp, 125Vac 1/2hp

8300, 8301, 8303, 8304
13A 250Vac SP, 250Vac 1hp, 125Vac 1/2hp

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

3mm contact gap.

Terminal

C



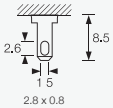
H



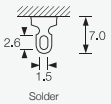
A



K



T



X



V



Function



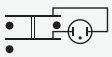
Approvals & ratings vary with function
Single Contact switches use terminals 1 & 2 (& 3)

8300
Single Contact
ON - OFF

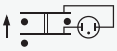
8301
Single Contact
ON - OFF
(momentary ON)



8303
Single Contact
ON - OFF
With Light



8304
Single Contact
ON - OFF
(momentary ON) with light



8350
Double Contact
ON - OFF



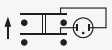
8351
Double Contact
ON - OFF (momentary ON)



8353
Double Contact
ON - OFF
With light



8354
Double Contact
ON - OFF (momentary ON)
with light



8355
Single Contact
ON - OFF
Isolated light - switched
C, E & M actuators only



8356
Single Contact
ON - OFF
Isolated light - unswitched
C, E & M actuators only



Actuator

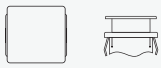
A Standard actuator



H Slotted for custom caps



C Square actuator



E Radiused actuator



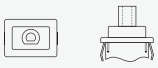
F Small round actuator



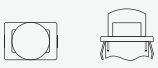
J Smooth curved actuator



M



D Large round actuator

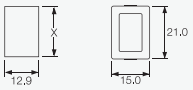


All actuators except H available lit

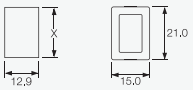
Body Code

Panel cut-out ** Bezel

B Standard body



E Softline style body with radiused bezel



Cut-outs must be punched in the direction of insertion

Dimensions for snap-in fixing

Panel thickness	Dimension X
0.75-1.24	19.1/19.2
1.25-1.99	19.3/19.4
2.00-3.00	19.7/19.8

X and V PCB terminals.
Additional dummy terminals may be supplied for extra support.

Body Colour

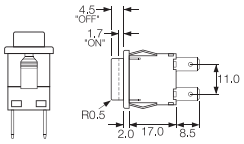
B Black

W White

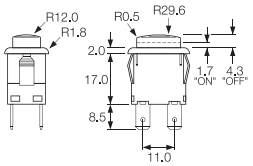
Downloaded from Arrow.com.

Dimensions

Actuator A
Body B



Actuator J
Body E



Examples



H8350AB - - -
T8350AB - - -



H8353JE - - -
T8353JE - - -



H8353EB - - -
T8353EB - - -



H8353CB - - -
T8353CB - - -

Actuator Colour	Lamp Voltage	Legend	Legend Colour	Options
LIT				
A Amber	_ None			H 12(12)A 250Vac switch rating Finish Matt finish standard except on J and D actuators which are gloss Colour Call sales for custom colours A full range is available for large orders Legend printing Select from the examples or call sales for custom legends. Special buttons Some of the many options are shown Call sales for the full range L167 Protective cover
C Clear	**2** 125V Neon			
G Green	**3** 250V Neon			
R Red	**7** 12V Filament			
	8 24V Filament			
UNLIT				
B Black				
R Red				
W White				



Snaps on to switch bodies fitted with “A” or “J” style actuators, this reduces panel thickness by 0.8mm

BioCote Antimicrobial Additive
Moulded components have antimicrobial properties using BioCote silver ion technology.

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8200 Push Button Range

8(8)A 250Vac & 12(12)A 250Vac



Key Features

- Miniature push button
- 8A Inductive current rating
- Ratings up to 12(12)A, 250V ac (H suffix)
- Without button
- Sub panel mount
- Push on, solder or PCB terminals
- Latching and momentary

Approvals and specifications

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

12A 250Vac
250Vac 1hp, 125Vac 1/2hp
3mm contact gap.

Terminal

C



H

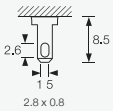


A

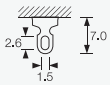


As "H" but right angle 4.8 x 0.8

K



T



Solder

V



Dual Plug PCB (Call sales for mounting dims)

X



PCB 0.8 Sq

Function



Approvals & ratings vary with function
Single Contact switches use terminals 1 & 2 (& 3)

8200
Single Contact
ON - OFF



8201
Single Contact
ON - OFF
(momentary ON)



8250
Double Contact
ON - OFF



8251
Double Contact
ON - OFF
(momentary ON)



Actuator

A Standard actuator for snap-on custom adaptors



B Flat top actuator



C Curved top actuator

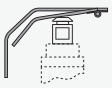


Examples of possible actuation methods

Using a Snap on adaptor



Using a Hinged Actuator



Body Code

A Standard body



See dimensioned drawings for details

C As standard body but with side support peg for use with M PCB terminals

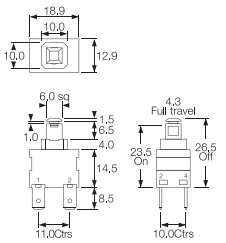


X and V PCB terminals.
Additional dummy terminals may be supplied for extra support.

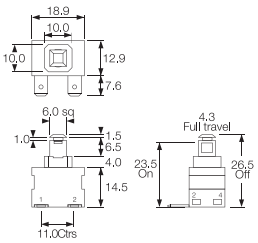
Downloaded from Arrow.com.

Dimensions

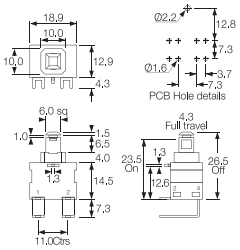
'A' body with 'H' 4.8 terminals



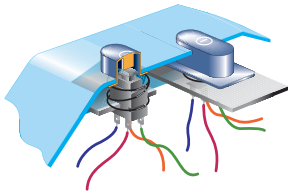
'A' body with 'A' right angle 4.8 terminals



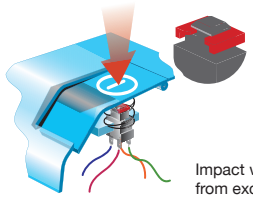
'C' body with 'M' right angle PCB terminals



Example of possible mounting styles



Alternative Actuator



Impact washer resists damage from excessive operator force

Examples



C8250AA - - - with impact washer M1226



X8201AA - - -



K8200AA - - -



A8200AA - - -



M8200AC - - -



Example of M8200AC

Downloaded from Arrow.com.

7000 Push Button Range

16A 250Vac



Key Features

- Round and rectangular push button switches
- Ratings up to 16A, 250V ac
- Latching and momentary
- Illuminated & non-illuminated
- Matching indicators
- Low profile version
- Panel cut outs: 25.0 dia 27.2 x 22.3

Approvals and specifications

16(4)A 250Vac T85/55
8(8)A 250Vac T85/55 (pending)

UL CSA 16A Non Ind, 250Vac 1hp, 125Vac 1/2hp
UL 65°C, file no. E45221

3mm contact gap.

Terminal	Function	Actuator	Body Code

Terminal

C



H



Function

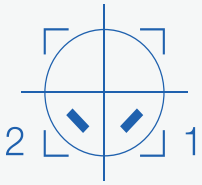


Approvals & ratings vary with function
Single Contact switches use terminals 1 & 2 (& 3)

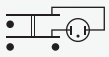
7000
Single Contact
ON - OFF

7001
Single Contact
(momentary)
ON - OFF

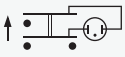


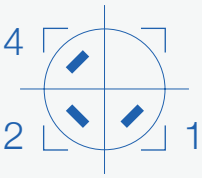


7003
Single Contact
(with light)
ON - OFF



7004
Single Contact
(momentary)
with light
ON - OFF



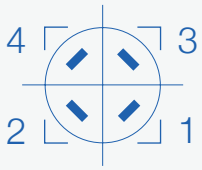


7050
Double Contact
ON - OFF

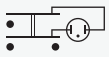


7051
Double Contact
with light
ON - OFF

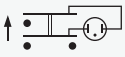


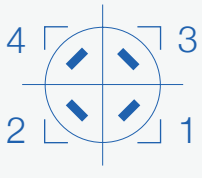


7053
Double Contact
with light
ON - OFF

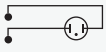


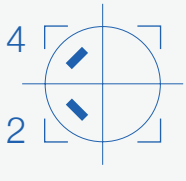
7054
Double Contact
(momentary ON)
with light
ON - OFF





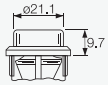
7030
Indicator
UL E63363
CSA LR29381





Actuator

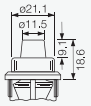
A Round actuator shown in F body



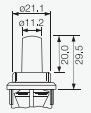
A Round actuator shown in G body



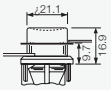
B Round actuator - medium shown in F body



C Round actuator - long shown in F body



D Round actuator - sub panel mount



S Rectangular actuator
Shown in "A" body
N/A for 7030

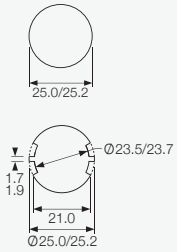


Body Code

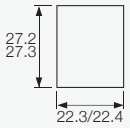
Panel cut-outs

F H G

Body types fit either cut-out



A

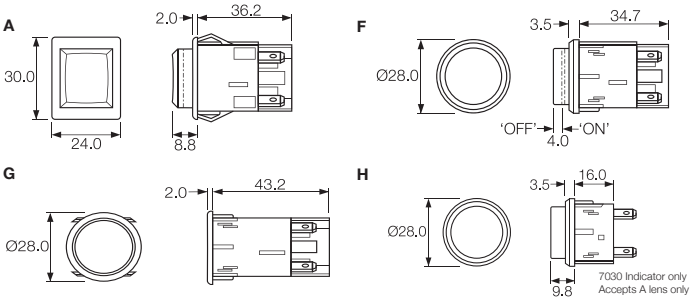


Cut-outs must be punched in the direction of insertion

Downloaded from Arrow.com.

Dimensions

Panel thickness:
A - 0.8 - 2.5mm
F, G, H - 0.8 - 5.0mm



Examples



C7000AF - - -



C7003AF - - -



C7050SA - - -



C7053AG - - -

Body Colour	Actuator Colour	Lamp Voltage	Legend	Legend Colour
	LIT			
B Black	**A** Amber	**_** None		
W White	**C** Clear	**2** 125V Neon		
	G Green	**3** 250V Neon		
	R Red	**7** 12V Filament		
		8 24V Filament		
	UNLIT			
	B Black			
	R Red			
	W White			

Options

Finish
Matt finish is standard on bodies.
Gloss finish is standard on actuators.

Colour
Call sales for custom colours.
A full range is available for large orders.

Legend printing
A wide range is available or call sales for custom legends.

Lamp voltage
Call sales for details of available voltages.

Weatherproof housing (E)
Additional housing which fits round body switches with an oversize housing with a clear silicone cover designed to IP65.
Mounting hole dia: 38.0mm

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0911 Push Button Switches

0.5A 250Vac



C0911RB - - -



C0911PB - - -



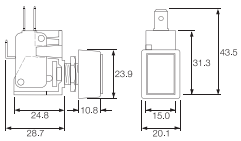
C0911KB - - -

Key Features

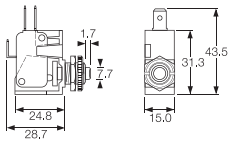
- Snap action switches
- Ratings up to 16A, 250Vac
- Round and rectangular buttons

Dimensions

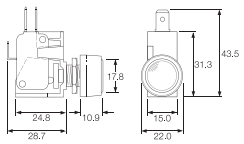
R

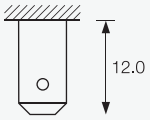
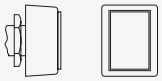
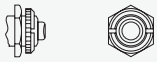
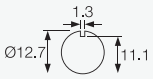


P



K & N



Terminal	Function	Actuator	Body Code	Options
	**0911** (momentary) ON - ON 	**R** Rectangular bezel  **P** Short  **K** with satin chrome bezel  **N** with nylon bezel 	 Panel Cut-out Panel thickness Both nuts 2.5mm No backnut 4.0mm	Call factory for custom colours

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Key Features

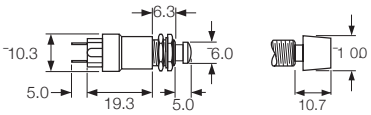
- Self wiping contacts
- Slow make & break
- Momentary action
- Choice of switch circuits
- Choice of actuators

Approvals and specifications

In house test:
0.5A 250Vac T85 — Indicative rating only

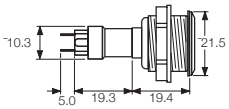
Dimensions

Dimensions (mm) Nylon S and L actuators

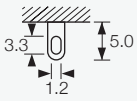
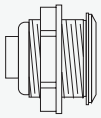
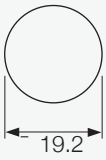


Neck thread - 40 TPI Whit. Actuator travel - 2.5 max

Stainless steel V actuator (IP66)



Neck thread - 26 TPI Whit. Actuator travel - 2.5 max

Terminal	Function	Actuator	Body Code	Options
T  Solder	**0916**  Black base SP ON - OFF (momentary) **0917** 50V only  Brown base SP ON - OFF (momentary 1 side) **0918**  White base SP ON - OFF (momentary OFF) **0919**  Black base DP ON - OFF (momentary 1 side) **0920**  White base DP ON - OFF (momentary ON)	**S** Small Actuator  **L** Large Actuator  **V** Vandal Resistant IP66 Flattop Stainless Steel 	 Panel Cut-out (L & S Actuators) Panel thickness Both nuts - 2.5mm No Backnut - 4.0  Panel Cut-out (Stainles Steel V Actuator) Panel thickness - 8.0mm	Finish Gloss finish for L and S actuators. Colour Call sales for custom colours. A full range is available for large orders.

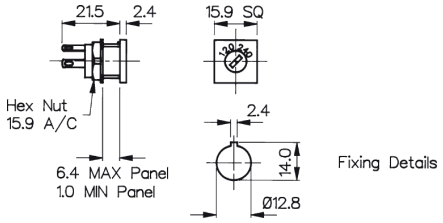
Downloaded from Arrow.com.

120/140V Voltage Selector



VS0001

- 2.8 series tabs/solder tags
- Square Front Bezel
- 6.3A

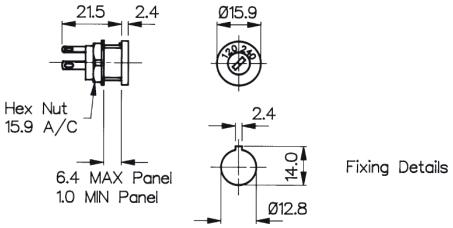


120/240V Voltage Selector

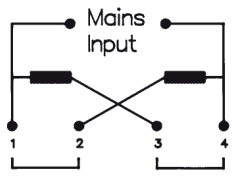


VS0002

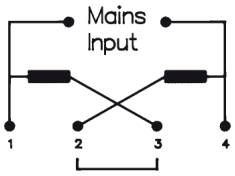
- 2.8 series tabs/Solder tags
- Round Front Bezel
- 6.3A



Connection Parallel 120V



Connection Series 240V



Specifications	VS0001	VS0002
Max. Rating:	6.3A, 120 / 240	6.3A, 120 / 240
Insulation Resistance:	>106 MΩ	>106 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
Variants:	Other markings, details on request	Other markings, details on request
RoHS		Compliant

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Activated by the touch of a finger, our Capacitive Switches are ideal for many repetitive applications requiring a rugged sealed and easy to use switch solution.



- Sealed to IP68 and IP69K
- Momentary or latching functions
- Large or thin ring illumination options
- Long life operation – 50 million of cycles
- 16, 19, 22 or 25mm diameter options
- Easy to use and clean
- Extremely robust and durable – IK10 rated
- No operating force required – ideal for repetitive applications
- Activated by the touch of a finger – even with surgeon gloves
- Natural, black and red anodised options as well as 316L stainless steels

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Capacitive Switches - 16mm

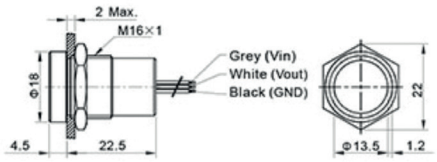
16mm Illuminated





MC16

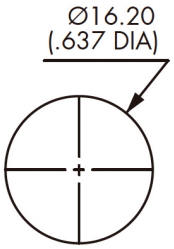
- Illuminated
- 300 mm lead



Specification

	MC16
Type	Momentary / Latching
Materials	Case: Aluminium, Anodised and Stainless Steel
	Multi-wire leads setion 0.22mm² (length 300mm)
Maximum Current / Voltage Rating:	500mA at 5V, 12V or 24VDC
Supply Voltage	5, 12 or 24 VDC
Contact Resistance	20mΩ
LED state for output image option	1 LED: The LED is ON when output is closed.
	2 LEDS: First colour is ON when the output is open. Second colour is ON when the output is closed.
Actuating force, typically	Zero Newton's (Touch Sensitive)
Life cycle	>50 Million

Panel Cutout Dimensions



Panel cutout: Ø16.20 (.637 DIA)

Environmental Specification

Sealing	IP68 (2m depth for >30mins) IP69K
Operating temperature	-25°C to +55°C
RoHS	Compliant

Circuit Specification

See wiring diagrams on page 51

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Capacitive Switches - 19mm

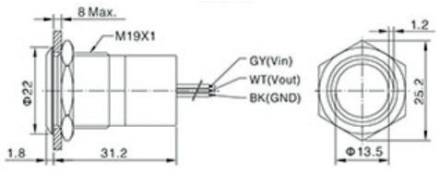
19mm Illuminated





MC19

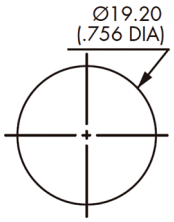
- Illuminated
- 300 mm lead



Specification

	MC19
Type	Momentary / Latching
Materials	Case: Aluminium, Anodised and Stainless Steel
	Multi-wire leads setion 0.22mm² (length 300mm)
Maximum Current / Voltage Rating:	500mA at 5V, 12V or 24VDC
Supply Voltage	5, 12 or 24 VDC
Contact Resistance	20mΩ
LED state for output image option	1 LED: The LED is ON when output is closed.
	2 LEDS: First colour is ON when the output is open. Second colour is ON when the output is closed.
Actuating force, typically	Zero Newton's (Touch Sensitive)
Life cycle	>50 Million

Panel Cutout Dimensions



Panel cutout: Ø19.20 (.756 DIA)

Environmental Specification

Sealing	IP68 (2m depth for >30mins) IP69K
Operating temperature	-25°C to +55°C
RoHS	Compliant

Circuit Specification

See wiring diagrams on page 51

Downloaded from Arrow.com.

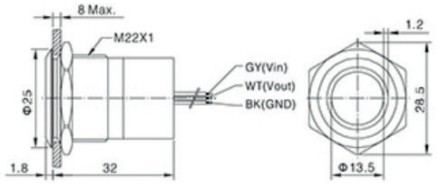
Capacitive Switches - 22mm

22mm Illuminated



MC22

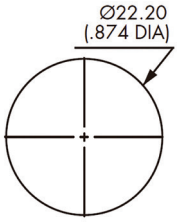
- Illuminated
- 300 mm lead



Specification

	MC22
Type	Momentary / Latching
Materials	Case: Aluminium, Anodised and Stainless Steel
	Multi-wire leads setion 0.22mm² (length 300mm)
Maximum Current / Voltage Rating:	500mA at 5V, 12V or 24VDC
Supply Voltage	5, 12 or 24 VDC
Contact Resistance	20mΩ
LED state for output image option	1 LED: The LED is ON when output is closed.
	2 LEDS: First colour is ON when the output is open. Second colour is ON when the output is closed.
Actuating force, typically	Zero Newton's (Touch Sensitive)
Life cycle	>50 Million

Panel Cutout Dimensions



Panel cutout: Ø22.20 (.874 DIA)

Environmental Specification

Sealing	IP68 (2m depth for >30mins) IP69K
Operating temperature	-25°C to +55°C
RoHS	Compliant

Circuit Specification

See wiring diagrams on page 51

Downloaded from Arrow.com.

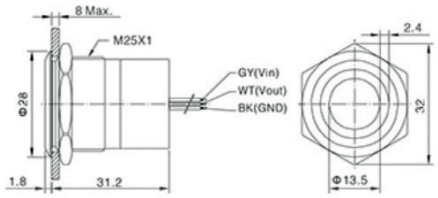
Capacitive Switches - 25mm

25mm Illuminated



MC25

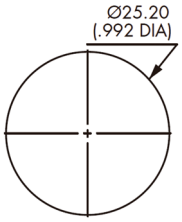
- Illuminated
- 300 mm lead



Specification

Specification	MC25
Type	Momentary / Latching
Materials	Case: Aluminium, Anodised and Stainless Steel
	Multi-wire leads setion 0.22mm² (length 300mm)
Maximum Current / Voltage Rating:	500mA at 5V, 12V or 24VDC
Supply Voltage	5, 12 or 24 VDC
Contact Resistance	20mΩ
LED state for output image option	1 LED: The LED is ON when output is closed.
	2 LEDS: First colour is ON when the output is open. Second colour is ON when the output is closed.
Actuating force, typically	Zero Newton's (Touch Sensitive)
Life cycle	>50 Million

Panel Cutout Dimensions



Panel cutout: Ø25.20 (.992 DIA)

Environmental Specification

Sealing	IP68 (2m depth for >30mins) IP69K
Operating temperature	-25°C to +55°C
RoHS	Compliant

Circuit Specification

See wiring diagrams on page 51

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Capacitive Switches - Part No System

Part No System

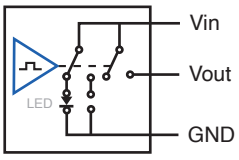
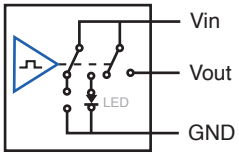
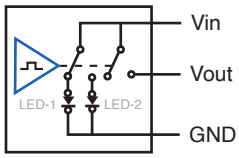
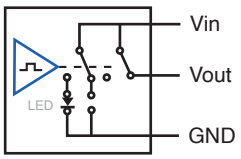
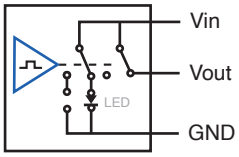
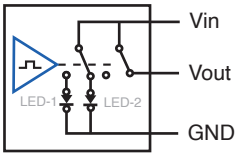
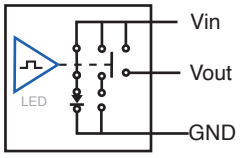
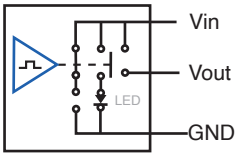
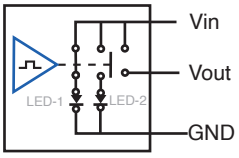
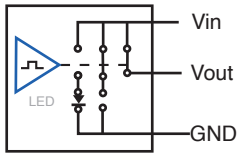
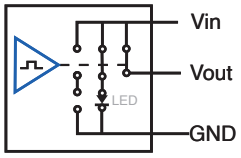
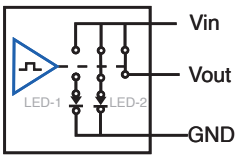
MC	/	XX	/	X	/	X	/	X	/	XX	/	XX

Series	Switch Size	Switch Function	Switch Status	Colour / Material	LED Colours	Voltage
MC-Capacitive Switch	16 = 16mm 19 = 19mm 22 = 22mm 25 = 25mm	M = Momentary L = Latching	O = Normally Open C = Normally Closed	B = Black Anodised R = Red Anodised S = Stainless Steel	GN = GREEN (1 LED) RD = RED (1 LED) AM = AMBER (1 LED) RG = RED + GREEN (2 LEDS) GR = GREEN + RED (2 LEDS)	05 = 5VDC 24 = 24VDC * No Suffix = 12VDC

Note:
2 LED's option: when the output circuit open, first LED color lights. Second LED lights when the output circuit closes

Examples:
MC16MOSRD = 16mm, Stainless Steel, Momentary Normally Open, Red Illumination, 12VDC
MC22LOBRG24 = 22mm, Black Anodised, Catching Normally Open, Red and Green Ilumination, 24VDC

Circuit Specifications

Wiring Diagrams				Legend
	1 LED		2 LEDS	Grey Vin Black black GND White Vout
	Output Indicator	Output Indicator	Output Indicator	Wire colours may vary. Always refer to the label on the switch.
OFF-ON (momentary) Normally Open				
ON-OFF (momentary) Normally Closed				
OFF-ON (latching) Normally Open				
ON-OFF (latching) Normally Closed				

Other switches are available upon request*

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Unlike traditional switches Piezo switches have no moving mechanical parts making them extremely durable, withstanding millions of actuations and requiring little to no maintenance.



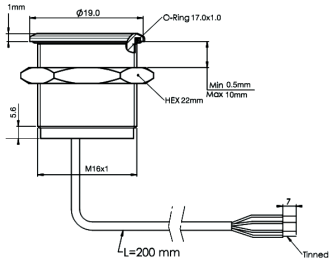
Downloaded from Arrow.com.

16MM Stainless Steel Non Illuminated



MPZ016

- Non Illuminated
- 20 cm lead
- Flathead or Guided profile



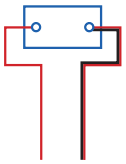
Specification	MPZ016
Type	Momentary
Material	Stainless Steel (Aluminium upon request)
Maximum Voltage	24V AC/DC
Switch Resistance “ON“	<1Ω
Switch Resistance “OFF“	5MΩ
Capacitance	100pF
Switching current (momentary)	1A Max
Switching current (prolonged)	300 mA
Switching pulse time (momentary)	up to 0.3 sec
Actuating force, typically	3-5 N
Life cycle	>10 Million

Environmental Specification

Sealing	IP68; IP69K
Operating temperature	-40°C to +85C°
Vibration resistance	5-500Hz/9.4m
Shock resistance	75g (g-force)
RoHS	Compliant

Circuit Specification

16MM Stainless Steel Non Illuminated



Switch voltage	24V AC/DC
Switch Current	1A Max
Power Supply	24V AC/DC

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19mm Stainless Steel

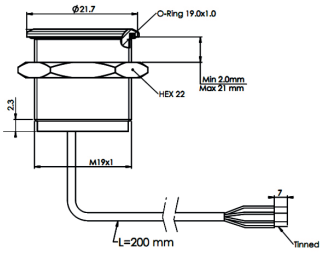
Illuminated and Non Illuminated

19MM Stainless Steel Illuminated

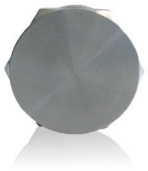


MPZI019

- Blue Illumination
- 20 cm lead
- Flathead

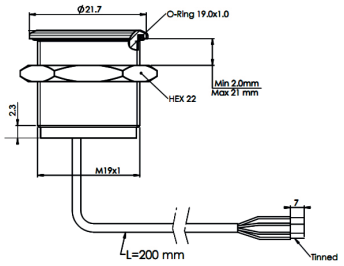


19MM Stainless Steel Non Illuminated



MPZ019

- Non Illumination
- 20 cm lead
- Flathead



Specification — MPZ019, MPZI019

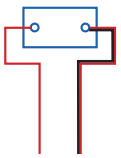
Type	Momentary
Material	Stainless Steel (Aluminium upon request)
Maximum Voltage	24V AC/DC
Switch Resistance “ON“	<1Ω
Switch Resistance “OFF“	5MΩ
Capacitance	100pF
Switching current (momentary)	1A Max
Switching current (prolonged)	300 mA
Switching pulse time (momentary)	up to 0.3 sec
LED Illumination	24V AC/DC
Actuating force, typically	3-5 N
Life cycle	>10 Million

Environmental Specification

Sealing	IP68; IP69K
Operating temperature	-40°C to +85C°
Vibration Resistances	5-500Hz/9.4m
Shock resistance	75g (g-force)
RoHS	Compliant

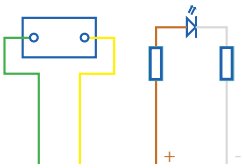
Circuit Specification

19MM Stainless Steel Non Illuminated



Switch voltage	24V AC/DC
Switch Current	1A Max
Power Supply	24V AC/DC

19MM Stainless Steel Illuminated



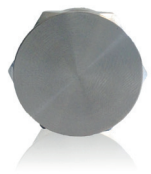
Switch voltage	24 V AC/DC
Switch Current	1A Max
Colour* Illuminated	24V AC/DC
Power Supply	24V AC/DC

Downloaded from Arrow.com.

22mm Stainless Steel

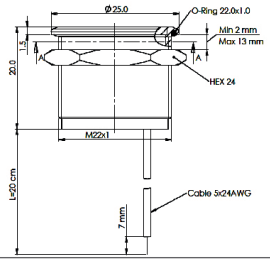
Illuminated and Non Illuminated

22MM Stainless Steel Non Illuminated



MPZ022

- Non Illumination
- 20 cm lead
- Flathead

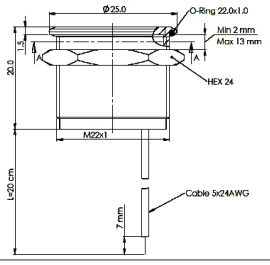


22MM Stainless Steel Illuminated



MPZI022

- Red or Green Illumination
- 1 colour
- 20 cm lead
- Flathead

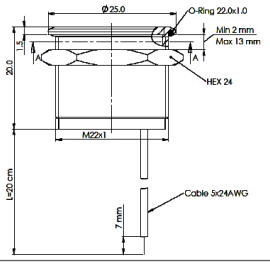


22MM Stainless Steel Illuminated



MPZI022

- Red and Green Illumination
- (2 colour)
- 20 cm lead
- Flathead



Specification — MPZ022, MPZI022

Type	Momentary
Material	Stainless Steel (Aluminium upon request)
Maximum Voltage	24V AC/DC
Switch Resistance “ON“	<1Ω
Switch Resistance “OFF“	5MΩ
Capacitance	100pF
Switching current (momentary)	1A Max
Switching current (prolonged)	300 mA
Switching pulse time (momentary)	up to 0.3 sec
LED Illumination	24V AC/DC
Actuating force, typically	3-5 N
Life cycle	>10 Million

Environmental Specification

Sealing	IP68; IP69K
Operating temperature	-40°C to +85C°
Vibration Resistances	5-500Hz/9.4m
Shock resistance	75g (g-force)
RoHS	Compliant

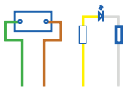
Circuit Specification

22MM Stainless Steel Non Illuminated



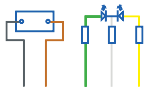
Switch Voltage	24 AC/DC
Switch Current	1A Max
Power Supply	24V AC/DC

22MM Stainless Steel Illuminated 1 colour



Switch Voltage	24V AC/DC
Switch Current	1A Max
Color* Illuminated	24V AC/DC
Power Supply	24 AC/DC

22MM Stainless Steel Illuminated 2 colour



Switch Voltage	24V AC/DC
Switch Current	1A Max
Color* Illuminated	24V AC/DC
Power Supply	24 AC/DC

Downloaded from Arrow.com.

22mm Stainless Steel Flathead

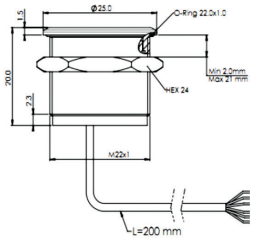
Illuminated

22MM Stainless Steel Illuminated



MPZI022/L

- Blue Illumination
- 1 colour
- 20 cm lead



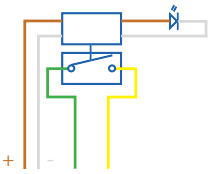
Specification	MPZI022/L
Type	Latching Toggle
Material	Stainless Steel (Aluminium upon request)
Power Supply	24V AC/DC
Switching voltage	48V AC peak/DC
Switch Resistance “ON“	<0.7Ω
Switch Resistance “OFF“	>1000MΩ
Capacitance	<90pF
Switching current	1A Max
LED Illumination	24V AC/DC
Actuating force, typically	3-5 N
Life cycle	>10 Million

Environmental specification

Sealing	IP68; IP69K
Operating temperature	-40°C to +85C°
Vibration Resistances	5-500Hz/9.4m
Shock resistance	75g (g-force)
RoHS	Compliant

Circuit Specification

22MM Stainless Steel Latching Toggle Illuminated



Power Supply	24V AC/DC
Switch Voltage	48V AC peak/ DC
Switch Current Max	1A Max
Colour* Illuminated	24V AC/DC

Downloaded from Arrow.com.

Part No System

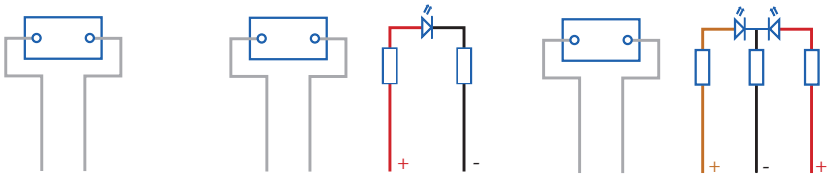
MPZ	/	016	/	X	/	XX	/	X	/	X

Series	Body Diameter	Profile	Colour	Led Voltage	Type
MPZ - Non Illuminated MPZI- Illuminated	016 = 16mm 019 = 19mm 022 = 22mm	F = Flat Head G = Guided Profile	BL = Blue RD = Red GN = Green D1 = Red and green	24v	L = Latching Toggle (No Suffix= Momentary)

Examples:

MPZ022/F = Non Illuminated Piezo, 22mm, Flathead
MPZI022/F/RD/24 = Illuminated Piezo, 22mm, Flathead, Red Illumination, 24 volt
MPZI022/G/BL/24/L = Illuminated Piezo, 22mm, Guided Profile, Blue Illumination, 24 volt, Latching Toggle

Circuit Specifications

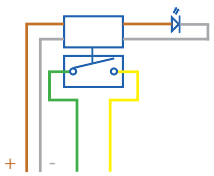


Non Illuminated | One colour Illuminated | Two colour Illuminated

Switch voltage 24V AC/DC
Switch Current 1A Max

+

Colour* Illuminated 24V AC/DC
Power Supply 24V AC/DC



One colour Illuminated (Latching Toggle)

Power Supply	24V AC/DC
Switch Voltage	48V AC peak/ DC
Switch Current	1A Max
Colour* Illuminated	24V AC/DC

Other switches are available upon request*

Downloaded from Arrow.com.

Bulgin's range of high quality rocker switches includes a huge choice of single and double contact options available in various sizes, colours, terminations, actuator types and ratings up to 20A, 277Vac, allowing for virtually any design configuration.

- Available types: Ultra-thin, Miniature, Twin unit, Miniature round and Standard
- Rating from 10A, 250V ac up to 20A, 277V ac
- Single & double contact variants available
- Push-on, solder & PCB terminals
- Illuminated and non-illuminated options
- High in-rush (ON-OFF types)
- Matching Indicators
- Splash resistant options
- Choice of bezel styles and sizes, panel cut-outs and actuators
- Choice of switching circuits including 3 position



Downloaded from Arrow.com.

8800 Thinline Rocker Switches

10A 250Vac



Key Features

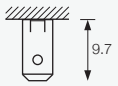
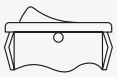
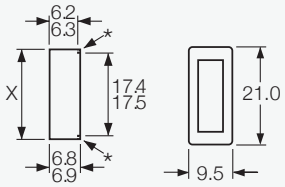
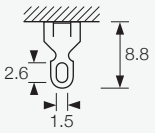
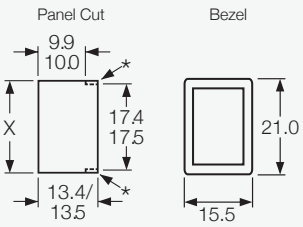
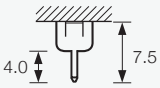
- Ultra thin rocker switch
- Ratings up to 15A, 250Vac
- Single and twin gang
- Panel cut out:
  Single 19.3 x 6.8
  Twin 19.3 x 13.4

Approvals and specifications

6(2) A 250 V AC 5E4 T100
10(6) A 250 V AC 1E4 T100
Inrush 10/50 A 250 V AC 1E4 T100

UL 15A 250Vac (Twin unit is 10A 250Vac)
UL 125Vac 1/2hp
UL 100°C, CSA file LR10990

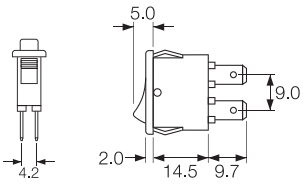
3mm contact gap.

Terminal	Function	Rocker	Body	Body Colour	Rocker Colour
H  	 Switches are ON when pressed over terminal 1 **8800** ON - OFF Single contact		A. Single contact Panel Cut Bezel  *Optional profile for orientation	**B** Black **R** Red **W** White	**B** Black **R** Red **W** White
T  	 Switches are ON when pressed over terminal 1 or 3		B. Single contact - Twin Panel Cut Bezel  *Optional profile for orientation Panel thickness / Dim X 0.75-1.2 — 19.1/19.2 1.25-1.99 — 19.3/19.4 2.00-3.00 — 19.7/19.8 Cut-outs must be punched in the direction of insertion		
X  	**8800**  ON - OFF Twin contact				

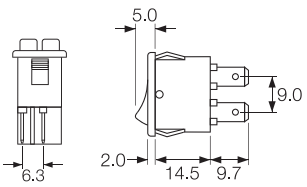
Downloaded from Arrow.com.

Dimensions

8800VA (H terminals shown)



8800V/8800VA (H terminals shown)



Legend

—
Blank

132

Legend Colour

—
Blank

B
Black

W
White

Options

Finish
Matt finish only.

Colour
Call sales for custom colours.
A full range is available for large orders.

Legend printing
Select from the examples or call sales for custom legends.

Examples

X8800VA

X8800VA
T8800VA - - -

X8800VA
T8800VA - - -

H8800V/H8800VA
T8800V/T8800VA

H8800V/H8800VA
T8800V/T8800VA

Downloaded from Arrow.com.

8500 Rocker Switches - Miniature

15A 250Vac Single & Double Contact



Key Features

- Miniature rocker switch
- Ratings up to 15A, 250Vac
- Single & double contact in same body size
- Illuminated & non-illuminated
- Matching indicators
- Industry standard panel cut-out
- Rotary and push button actuator options
- Panel cut out: 19.3 x 12.9

Approvals and specifications

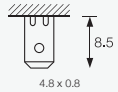
6(4) A, 250 VAC, 5E4, T125
10(6) A, 250 VAC, T125
10(6) A, 250 VAC, T100

UL 15A Non Ind 250Vac, 14A Ind 250Vac, 10A 277Vac
UL 250Vac 1/2hp, 125Vac 1/4hp
UL 105°C, (non lit)

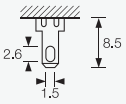
3mm contact gap.

Terminal

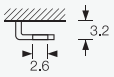
H



K

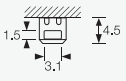


L

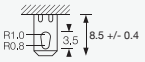


Right angle version of K terminal available on 8500 only

R



T



Solder

Function



ON OFF Switches are ON when pressed over terminal 1

8500

ON - OFF
Single contact
(Uses terminals 1a & 2a)

8503



ON (lit) - OFF
Single contact

8550



ON - OFF
Double contact

8553



ON (lit) - OFF
Double contact

8580
Available with H terminals only

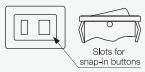


Indicator

UL/CSA E63363

Rocker

H Slotted for custom caps



R Semi-rotary (not lit)



D Paddle lever (not lit)



V Curved (not lit)



V Curved (lit)



X Two colour (not lit)



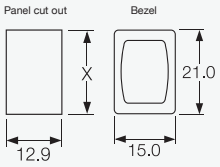
A Softline lens



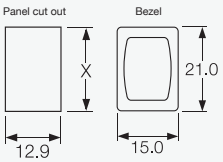
P Push button operation (8500 only)
See drawing opposite

Body

B Standard body with terminal barrier



BC Body without terminal barrier



Dimensions for snap-in fixing

Panel thickness	Dim X
0.75-1.25	19.1/19.2
1.25-2.00	19.3/19.4
2.00-3.00	19.7/19.8

Cut-outs must be punched in the direction of insertion

Body Colour

B
Black

R
Red

W
White

Rocker Colour

Un-Lit

B
Black

R
Red

W
White

Lit

A
Amber

G
Green

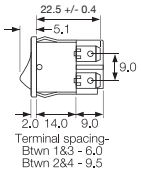
C
Clear

R
Red

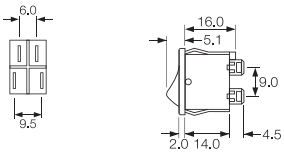
Downloaded from Arrow.com.

Dimensions

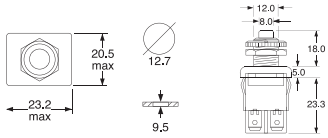
"B" body with barrier for H, T and K terminals



"BC" body w/o barrier primarily for L or R terminals (can be used for all terminals)



'PO' Actuator and body - push button function (8500 only)



Insert Colour

X
Rocker Only

R
Red

W
White

—
Leave blank for other Rocker types

Lamp Voltage

—
Blank

2
125V Neon

3
250V Neon

7
12V Filament

8
24V Filament

Legend

—
Blank

076

Legend Colour

—
Blank

B
Black

W
White

Options

Finish
Matt finish only.

Colour
Call sales for custom colours. A full range is available for large orders.

Legend printing
Select from the examples or call sales for custom legends.

Lamp voltage
Call sales for details of available voltages.

Protective cover L167
Snaps on to bodies with V or X style rockers and A lens. This reduces panel thickness by 0.8mm.



Examples



T H8500VB - - -
T T8500VB - - -



T H8550VB - - -
T T8550VB - - -



T H8550HB - - -
T T8550HB - - -



T H8550XB - - -
T T8550XB - - -



H8550RB Semi-rotary
A splash proofing option



T H8500PO - - -
Pushbutton option



T H8553VB - - -
T T8553VB - - -



T H8580AB - - -

Downloaded from Arrow.com.

8600 Rocker Switches - Miniature

10A 250Vac Single & Double Contact

bulgin
an INFINITE company



Key Features

- Miniature rocker switch
- Ratings up to 16A, 250Vac
- Single & double Contact
- ON/OFF, C/O, biased and centre off switching
- Push on, solder and PCB terminals
- Illuminated and non illuminated
- Matching indicators
- Panel cut out
  single: 19.3 x 12.9
  double: 19.3 x 21.9

Approvals and specifications

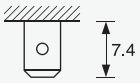
10(4)A 250Vac T90 (unless noted below)

UL See ratings below
UL 65°C, file E45221

3mm contact gap except where marked µ.

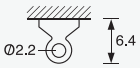
Terminal

H



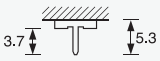
4.8 x 0.8

T



3.5 x 0.8
Solder

X



PCB
0.8Sq

Double Contact switches with "X" terminals are supplied without terminal barriers

Function

Approvals & ratings vary with function



ON OFF Switches are ON when pressed over terminal 3



8600
10(4)A
16A 250V, 10A 277V
1/2HP 277V,1/4HP 125V
ON - OFF

8650
10(4)A
10A 277V
1/2HP 277V,1/4HP 125V
ON - OFF

8601
6(1)A
16A 250V, 6A 277V
ON - OFF
(momentary ON)

8651
6(1)A
6A 277V
ON - OFF
(momentary ON)

8602
10A
6A 277V
ON - OFF
(momentary OFF)

8652
10(4)A
6A 277V
ON - OFF
(momentary OFF)

N/A

ON - OFF
Lit

8653
10(4)A
6A 277V
ON - OFF
Lit

8610
6(1)A
10A 277V
1/2HP 277V,1/4HP 125V
ON - ON

8660
6(1)A
10A 277V
1/2HP 277V,1/4HP 125V
ON - ON

8611
6A 277V
ON - ON
(momentary 1 side)

8661
6A 277V
ON - ON
(momentary 1 side)

* 8611 and 8661 not covered by ENEC

8620 µ
ON - OFF - ON

8670 µ
ON - OFF - ON

8630
6(1)A
UL E63363
CSA LR29381

N/A

Indicators

Rocker

V Curved



V Curved (lit)



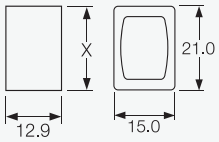
F Flat Indicator only (Single contact)



Body

B Single Contact

Panel cut out / Bezel



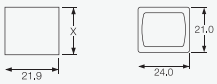
Single Contact dimensions for snap-in fixing

Panel thickness	Dim X
0.75-1.25	19.1/19.2
1.25-1.99	19.3/19.4
2.00-3.00	19.7/19.8

B (Double Contact) with terminal barrier

BC (Double Contact) w/o terminal barrier

Panel cut out / Bezel



Double Contact dimensions for snap-in fixing

Panel thickness	Dim X
0.75-1.24	19.1/19.2
1.25-1.99	19.3/19.4
2.00-3.00	19.7/19.8

Cut-outs must be punched in the direction of insertion

Body Colour

B Black

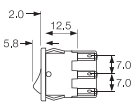
R Red

W White

Downloaded from Arrow.com.

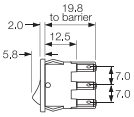
Dimensions

Single contact



Terminals shown
are "H" 4.8 push on type

Double contact



Terminal spacing
10.2 between contact centres

Rocker Colour

Un-Lit

B
Black

R
Red

W
White

Lit

A
Amber

G
Green

C
Clear

R
Red

Lamp Voltage

—
Blank

2
125V Neon

3
250V Neon

7
12V Filament

8
24V Filament

Legend

—
Blank

076

Legend Colour

—
Blank

B
Black

W
White

Options

Finish
Matt finish only.

Colour
Call sales for custom colours.
A full range is available for large orders.

Legend printing
Select from the examples or call sales for custom legend.

Lamp voltage
Call sales for details of available voltages.

Blanking plate A8634FB
Dummy unit to fill unused panel holes.
Single contact size only.

Protective covers
L167 for SP
L180 for DP
Snap on to bodies with V rocker or F lens. This reduces panel thickness by 2.2mm.



Single Contact options
Most switches shown can have single contact switching in double contact bodies.

Examples



H8600VB - - -
T8600VB - - -



H8600VB - - -
T8600VB - - -



H8630FB - - -
T8630FB - - -



H8650VB - - -
T8650VB - - -



H8660VB - - -
T8660VB - - -



H8653VB - - -
T8653VB - - -

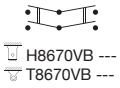
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8620 & 8670 Rocker Switches

3 Positions - 10A 250Vac









Key Features

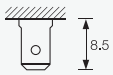
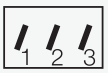
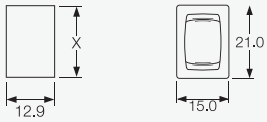
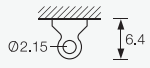
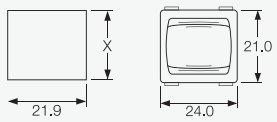
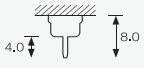
- 3 position miniature rocker switch
- Ratings up to 15A, 250Vac
- Single & double Contact
- Centre off switching
- Push on, solder and PCB terminals
- Matching indicators
- Panel cut out: single: 19.3 x 12.9 double: 19.3 x 21.9

Approvals and specifications

10(4)A 250Vac T90

UL 15A 277Vac (Single Contact)
UL 250Vac 1/2hp (Single Contact)
UL 125Vac 1/4hp (Single Contact)
UL 10A 277Vac (Double Contact)
UL 277Vac 1/2hp (Single & Double Contact)
UL 90°C

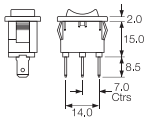
µ contact gap.

Terminal	Function	Rocker	Body	Body Colour	Rocker Colour
H  4.8 x 0.8	 **8620** ON - OFF - ON Single Contact	**V**  Curved	**B** Single Contact  Panel thickness / Dim X 0.75-1.24 — 19.1/19.2 1.25-1.99 — 19.3/19.4 2.00-3.00 — 19.7/19.8	**B** Black **R** Red **W** White	Lit (DP) **A** Amber **C** Clear **G** Green **R** Red
T  Solder	 **8670**  ON - OFF - ON Double Contact	**H**  Slotted for actuator (8620 only)	**B** Single Contact - Twin  Panel thickness / Dim X 0.75-1.24 — 19.1/19.2 1.25-1.99 — 19.3/19.4 2.00-3.00 — 19.7/19.8 Cut-outs must be punched in the direction of insertion		Lit (DP) **B** Black **R** Red **W** White
X  PCB 0.8sq Double Contact switches with X terminals are supplied without terminal barriers					

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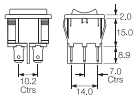
Dimensions

Single Contact



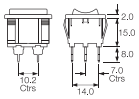
Terminals shown
are "H" 4.8 push on type

Double Contact



Terminal spacing
10.2 between Contact centres

Double Contact



Terminal spacing
10.2 between Contact centres

Lamp Voltage

— Blank

2 125V Neon

3 250V Neon

7 12V Filament

8 24V Filament

Legend

— Blank

076

Legend Colour

— Blank

B Black

W White

Options

Finish
Matt finish only.

Colour
Call sales for custom colours.
A full range is available for large orders.

Legend printing
Select from the examples or call sales for custom legend.

Lamp voltage
Call sales for details of available voltages.

Blanking plate A8634FB
Dummy unit to fill unused panel holes.
Single Contact size only.

Protective covers
L167 for SP
L180 for DP
Snap on to bodies with V rocker or F lens. This reduces panel thickness by 2.2mm.



Single Contact options
Most switches shown can have single Contact switching in double Contact bodies.

Downloaded from Arrow.com.

1250 Rocker Switches

10A 250Vac

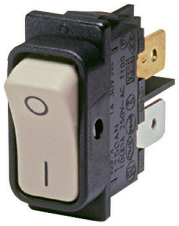




C1250AP ---

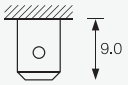
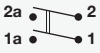
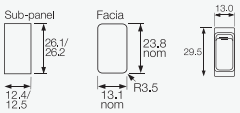
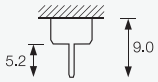
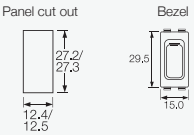


C1250AN ---



Key Features

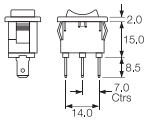
- Standard rocker switch
- Double Contact in single Contact body
- Snap in or sub panel mount
- Integral terminal barrier
- Push on or PCB terminals
- Panel cut out:
  27.2 x 12.4 (snap in)
  26.3 x 12.4 (sub panel mount)

Terminal	Function	Rocker	Body	Body Colour	Rocker Colour
C  6.3 x 0.8	 On when pressed over terminal 1 **1250**  ON - OFF Double Contact Contacts are 9.0mm between centres.	**A** Curved  Shown in N body	**N** Panel cut-out / Bezel  Panel thickness / Dim X 0.75-1.24 / 26.1/26.2 1.25-1.99 / 26.3/26.4 2.00-3.00 / 26.7/26.8	**B** Black **W** White	**B** Black **W** White
X  PCB 0.8sq (N body only)	 On when pressed over terminal 1 **1250SP**  ON - OFF Single Contact	 Shown in P body	**P** Panel cut out / Bezel  Panel thickness 0.75-3.00 Cut-outs must be punched in the direction of insertion		**G** Grey

Downloaded from Arrow.com.

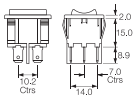
Dimensions

1250AN
(C terminals shown)



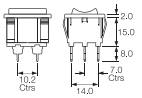
Terminals shown
are "H" 4.8 push on type

1250AN
(X terminals shown)



Terminal spacing
10.2 between Contact centres

1250AP
(C terminals shown)



Terminal spacing
10.2 between Contact centres

Approvals and specifications

10(6)A 250Vac T100
6A 400Vac T100
1A 30Vdc

UL 10A 250Vac
UL 16A 250Vac Resistive
UL 125Vac 1/2hp
UL 1A 30Vdc
UL 100°C

3mm contact gap

Legend

—
Blank

085

Legend Colour

—
Blank

B
Black

W
White

Options

Finish
Matt finish only.

Colour
Call sales for custom colours.
A full range is available for large orders.

Legend printing
Select from the examples or call sales for custom legend.

Downloaded from Arrow.com.

7500 Rocker Switches

30A 250Vac



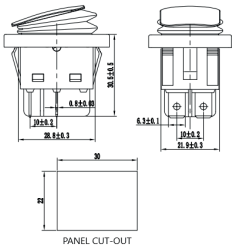
Key Features

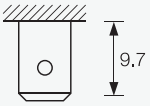
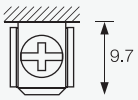
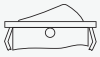
- IP68 Rated
- Rated to 30A at 250V
- Available colours:
  - Transparent: Red, Green, Blue, Yellow, White,
  - Solid: Black
- Termination options: Screw Terminal, 6.3 X 0.8mm solder tab / Push fit
- Switch functions available: ON-OFF, ON-ON, ON-OFF-ON.
- Panel Cut Out - 30mm x 22mm

Approvals and specifications

30A 125/250VAC, T125, 5E4 (50,000 Cycles)
20A 125/250VAC, T125, 5E4 (50,000 Cycles)
16A 125/250VAC, T125, 5E4 (50,000 Cycles)
(Solder Connections Only)

UL = 30A 250Vac, 40T85, 1E4 (10,000 cycles)
8(12) 125Vac, 40T85, 1E4 (10,000 Cycles)
cUL = 30A 250Vac, 40T85, 1E4 (10,000 cycles)



Terminal	Function	Rocker	Lamp Voltage	Rocker Colour
C  6.3 x 0.8mm ENEC rated, solder connections only **S**  Screw & Clamp Rated to cULus only	**7510**  ON - OFF **7520**  ON - ON **7530**  ON - OFF - ON	**T** Transparent  **S** Solid 	**000** No LED **012** 12V **024** 24V **110** 110V **250** 250V	Illuminated (DP) **R** Red **G** Green **B** Blue **Y** Yellow **W** White **K** Black Non-Illuminated (DP)

Downloaded from Arrow.com.

General Specifications	
	Electrical
Voltage	250VAC
Current	30A
Insulation Resistance	≥50MΩ/500VDC
Power-Frequency Withstand Voltage	AC1500v 10s
Durability	UL: 10,000 cycles | ENEC: 50,000 cycles
Operating Temperature	UL: -40oC to 85oC | ENEC: 125oC max
Switch Contact Configuration	Double Pole
	Technical
Panel Mount Cut-Out	22mm X 30mm Square
Max Panel Thickness	2.5mm
Terminal Material	Brass (Silver Plated)
Body Material	PA66 Nylon
Approvals	UL (File Number: E45221)
IP Rating	IP68

Downloaded from Arrow.com.

6000 SP Splash Resistant Rocker Switches

16A 250Vac



Key Features

- Ratings up to 20A, 277Vac
- Positive switch action
- Distinctive styling
- Illuminated & nonilluminated
- Single Contact
- Panel cut out: 30.1 x 11.1mm

Approvals and specifications

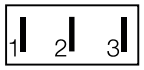
European 16(4)A 250Vac T125, 10A 400Vac T125

UL = 20A 277Vac, 1 1/2HP 250Vac 1HP 125Vac
cUL = 20A 277Vac, 1HP 125Vac, 1/2HP 125Vac

3mm contact gap with Positive Break switching.
Call factory for IP details.

Vary with Function

Approvals & ratings vary with function
ON OFF Switches - ON when pressed over terminals 3.



Terminal	Function	Rocker	Body	Body Colour	Rocker Colour	Lamp Voltage
C 9.7 6.3 x 0.8	**6000** ON - OFF	**A** Softline Matt	**L** Panel cut-out ** Bezel R2,0 30.0/30.1 31,5 11.0/11.1 14,0 Cut-outs must be punched in the direction of insertion	**B** Black	Lit (DP)	— Blank
H 9.7 4.8 x 0.8	**6001** ON - OFF (momentary ON)	**A** Softline Matt		**W** White	**A** Amber	**2** 125V Neon
S 9.7 Screw & Clamp N/A for assemblies with 3 terminals	**6002** ON - OFF (momentary OFF)	**P** Lit window Matt			**C** Clear	**3** 250V Neon
	6003 ON - OFF Lit				**G** Green	**5** 12Vdc LED (P Rocker)
	6008 ON - OFF Lit (Unswitched neutral)				**R** Red	**6** 24Vdc LED (P Rocker)
	6009 ON - OFF (momentary ON) Lit (Unswitched neutral)				Lit (DP) **B** Black	**7** 12V Filament
	6010 ON - ON				**R** Red	**8** 24Vdc Filament
	6011 ON - ON (momentary 1 side)				**W** White	

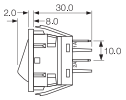
Downloaded from Arrow.com.

Integral Splash Resistance



Current carrying parts are protected from moisture.
Droplets which may enter the switch are channelled out through ports in the switch body.
For IP65 see options below

Dimensions



Panel thickness
L 0.75 to 2.5mm

Legend	Legend Colour	Options
— Blank	— Blank	**G74** Protective Cover
1223	**B** Black	Finish Matt is standard. Colour Call sales for custom colours. A full range is available for large orders. Legend printing Select from the examples or call sales for custom legends. Lamp voltage Call sales for details. Protective cover A snap on cover is available (add G after body code), this reduces panel thickness by 2mm.
	W White	 Panel sealing washer W46 is available, this reduces panel thickness by 1.2mm. Covers are not suitable for momentary types. For all options call the factory

Examples


C6000AL - - -


C6000AL - - -


C6010AL - - -


C6003AL - - -


C6003PL - - -


C6030AL - - -

Downloaded from Arrow.com.

6050 DP Splash Resistant Switches

& Twin Switches - 16A 250Vac



Key Features

- Ratings up to 20A, 277V ac
- Positive switch action
- Distinctive styling
- Illuminated & non-illuminated
- Double Contact
- DC LED Illumination Avaliable
- Panel cut out: 30.1 x 22.2mm

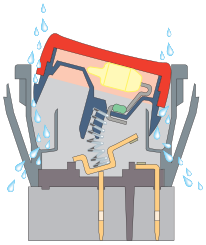
Approvals and specifications

- European 16(4)A 250Vac T125, 10A 400Vac T125
- UL (except 6054 & 6055 Swtiches) 20A 277Vac, 250Vac 11/2hp, 125Vac 1hp
- UL 100°C
- 3mm contact gap with Positive Break switching.

Terminal	Function	Rocker	Body	Body Colour
C 9.7 6.3 x 0.8 **H** 9.7 4.8 x 0.8 **S** 9.7 Screw & Clamp N/A for assemblies with 3 terminals	**6050** ON - OFF **6051** ON - OFF (momentary ON) **6052** ON - OFF (momentary OFF) **6053** ON - OFF Lit **6054** ON - OFF (momentary ON) Lit **6055** ON - OFF (Single Contact) (momentary ON) Lit **6056** ON - OFF (Single Contact) Isolated light **6057** ON - OFF Isolated light **6058** ON - OFF (Single Contact) Lit **6059** ON - OFF (Single Contact) (momentary ON) Isolated light **6060** ON - ON **6061** ON - ON (momentary 1 side) **6062** 2 Circuit ON - ON (In house tests only) **6066** ON - ON (Single Contact) Isolated light **6067** ON - ON Lit **6068** ON - ON 1 Contact ON - OFF Lit 1 Contact **6090** ON - OFF 1 Contact ON - OFF Lit 1 Contact **6091** ON - OFF (momentary ON) Lit **6092** ON - OFF 1 Contact ON - ON 1 Contact Lit Circuits are Double Contact unless described otherwise	**A** Softline Matt **A** Softline Matt **P** Lit window Matt Lit window	**L** Double Contact Panel cut-out ** Bezel 22.1/22.2 30.0/30.1 R2.0 25.0 31.5 **L** Twin units Contact sales for information on splash resistance and IP ratings 22.1/22.2 30.0/30.1 R2.0 25.0 31.5	Lit (DP) **A** Amber **C** Clear **G** Green **R** Red Un-Lit (DP) **B** Black **R** Red **W** White

Downloaded from Arrow.com.

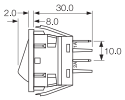
Integral Splash Resistance



Current carrying parts are protected from moisture. Droplets which may enter the switch are channelled out through ports in the switch body.

For IP65 see options below

Dimensions

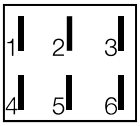


Panel thickness
L 0.75 to 2.5mm

Terminal spacing - Contacts 10.5 between centres

Vary with Function

Approvals & ratings vary with function
ON OFF Switches - ON when pressed over terminals 3 & 6.



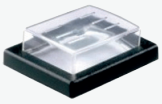
Rocker Colour	Lamp Voltage	Legend	Legend Colour	Options
B Black	— Blank	— Blank	— Blank	**G72** Protective Cover
R Red	**2** 125V Neon	**1223**	**B** Black	
W White	**3** 250V Neon		**W** White	
	5 12Vdc LED (P Rocker)			
	6 24Vdc LED (P Rocker)			
	7 12V Filament			
	8 24Vdc Filament			

Finish
Matt is standard.

Colour
Call sales for custom colours.
A full range is available for large orders.

Legend printing
Select from the examples or call sales for custom legends.

Protective cover
The 6050 series is a water through design. For a higher level of sealing, a snap on cover is available (add G after body code).
This reduces panel thickness by 1mm.



Panel sealing washer W42 is available. This reduces panel thickness by 1.00mm. Covers are not suitable for momentary types.

IP Ratings
Call the sales for details.

Terminal Link P1067
connects the Contacts of a double Contact switch or twin unit.

Mounting orientation may affect IP rating.

Examples

C6050AL - - -

C6053AL - - -

C6053PL - - -

C6000A/C6000AL

C6003P/C6003PL

C6003P/C6030AL

Downloaded from Arrow.com.

1500 Standard & 1300 High Inrush Switches

150A to EN61058-1 and 16A 250Vac



Key Features

- Standard rocker switch
- Non-illuminated
- 150A inrush
- Choice of switching circuits including 3 position
- Choice of bezel styles
- Choice of panel cut outs
- Matching indicator
- Single Contact
- Splash resistant option
- DC LED Illumination Avaliable for "P" Rocker
- Panel cut out 'A' style: 27.3 x 12.3mm

Approvals and specifications

1500 Series 16(4)A 250Vac T125 **(European Approvals Pending)**

UL 16A Non Ind 250Vac, (2 posn) 250Vac 1hp, 125Vac 1/2hp, (3 posn) 250Vac 1/2hp, 125Vac 1/4hp
1330 36Vdc 14A
1350 72 Vdc 7A
1500 & 1510 14 Vdc 10A
UL 85°C

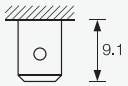
In house test:
10A 24Vdc—Indicative rating only

1300 Series 16(4)A 250Vac T125 5E4 (50,000 Ops)
150A Inrush to EN61058-1

UL 20A 250Vac 1hp, 125Vac 1/2hp
UL 85°C

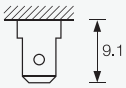
Terminal

C



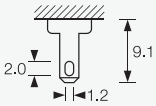
6.3 x 0.8

H



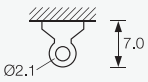
4.8 x 0.8*

K



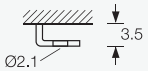
2.8 x 0.8*

T



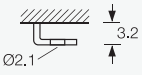
Solder

U



Right angle "T" solder terminal

X



PCB 0.8Sq*
*N/A for 1300 series

Function

Standard 1500
ON - OFF

1501
HP rating N/A
ON - OFF (momentary ON)

1502
HP rating N/A
ON - OFF (momentary OFF)

1510 µ
HP rating N/A
ON - ON

1511 µ
HP rating N/A
ON - ON (momentary 1 side)

1520 µ
125V & 250V 1/2 HP
H terminal rated T100 only
ON - OFF - ON

1521 µ
HP rating N/A
H terminal rated T100 only
ON - OFF - ON (momentary 1 side)

1522 µ
HP rating N/A
H terminal rated T100 only
ON - OFF - ON (momentary 2 sides)

0430 (Indicator)
HP rating N/A
H terminal rated T100 only

1484
In-house tested to 10(3)A 250Vac
3 position selective

1487
In-house tested to 10(3)A 250Vac
3 position selective

High Inrush 1300
ON - OFF

Rocker

A Softline Matt

B Splash resistant (with Arcshield) Matt

H Slotted (for custom Adaptors) not momentary

V Curved Matt or gloss

W Splash resistant (with Arcshield) Matt

X Two colour Matt ON - OFF only (not momentary)

F Flat lens Gloss (0430 only)

A Softline lens Matt (0430 only) as F but with raised profile

Body

Panel cut-out Bezel

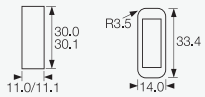
Cut-outs must be punched in the direction of insertion

A



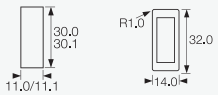
Gloss or Matt

B



Matt only

L



Matt only

Q



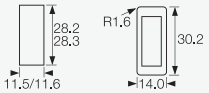
Gloss or matt

R



Matt only

T



Matt only

Finish

M Matt

G Gloss

Applies to both Rocker & Body

Body Colour

B Black

R Red

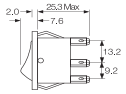
W White

Downloaded from Arrow.com.

In house test:
20A 24Vdc—Indicative rating only

3mm contact gap except if marked µ.

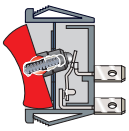
Dimensions



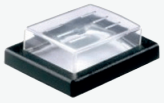
Panel thickness
A,Q 0.75 to 3.3mm
L,B,T 0.75 to 2.5mm
R 0.75 to 3.0mm

Splash Resistance

1500 W and B splash resistant options
Feather edge seals and a close fitting collar protect current carrying parts from moisture.
B option has Hytrel collar/seals for enhanced protection.



1300 High inrush, positive break switching
The 1300 series mechanism ensures contact welds formed at switch-on are positively separated by the plunger tube acting directly on the step in the moving contact.

Rocker Colour	Lamp Voltage	Insert Colour	Legend	Legend Colour	Options
Un-Lit	— Blank	— Blank	— Blank	— Blank	Finish Matt is standard.
B Black	**2** 125V Neon	**R** Red	**602A**	**B** Black	Colour Call sales for custom colours. A full range is available for large orders.
R Red	**3** 250V Neon	**W** White		**W** White	Legend printing Select from the examples or call sales for custom legends.
W White	**7** 12V Filament				Lamp voltage Call sales for details.
Lit	**8** 24Vdc Filament				Blanking plates A0434 - - Dummy units to fill unused panel holes.
A Amber					Protective cover Snaps on to A, L, Q or T bodies (add G after body code in cat no.), this reduces panel thickness by 1mm.
C Clear					
G Green					Panel sealing washer W46 is available for the same body sizes, this reduces panel thickness by a further 0.8mm. Covers are not suitable for momentary types.
R Red					For all options call sales.

Examples


C1500AR - - -
T1500AR - - -


C1500AL - - -
T1500AL - - -


C1500XL - - -
T1500XL - - -


C1510AL - - -
T1510AL - - -


C1520AL - - -
T1520AL - - -


C0430AL - - -
T0430AL - - -

Downloaded from Arrow.com.

5500 Lit Rocker Switches

10A 250Vac



Key Features

- Standard rocker switch
- Illuminated
- Choice of switching circuits
- Choice of bezel styles
- Choice of panel cut outs
- Matching indicator
- Single Contact
- Splash resistant option
- Panel cut out 'A' style:

Approvals and specifications

16(4) A, 250 V ac, 50/60 Hz, IP40, 1E4, T85/55, micro disconnection
12 A, 250 V ac, 50/60 Hz, IP40, 1E4, T125/55, micro disconnection

UL 15A 250Vac, CSA 16A Non Ind 250Vac
UL 250Vac 1hp, 125Vac 1/2hp
UL 85°C

µ contact gap.

For Twin units repeat the order details for both the left and right sides.

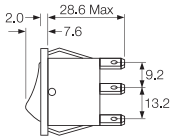
Terminal	Function	Rocker	Body	Body Colour	Rocker Colour
C 9.1 6.3 x 0.8 **H** 9.1 4.8 x 0.8 **T** 7.0 Ø2.1 Solder	Approvals & ratings vary with function ON OFF Switches - ON when pressed over terminal 3 1 2 3 **5500 µ** ON - OFF Single Contact **5503 µ** ON - OFF Lit Switched neutral **5508 µ** ON - OFF Lit Unswitched neutral	**A** Softline (Matt only) **P** Lit window (Matt only)	**A** Panel Cut - outs 27.2 27.3 12.2/12.3 Bezel 30.2 14.0 **B** 30.0 30.1 11.0/11.1 R3.5 33 14.0 **L** 30.0 30.1 11.0/11.1 R1.0 31.9 14.0 **Q** 28.2 28.3 11.5/11.6 R1.6 30.2 14.0 **R** 28.5 28.6 14.0/14.1 31.5 17.0 **T** 28.2 28.3 11.5/11.6 R1.6 30.2 14.0	**B** Black **W** White	Un-Lit **B** Black **R** Red **W** White Lit **A** Amber **C** Clear **G** Green **R** Red

Downloaded from Arrow.com.

Dimensions

Panel thickness

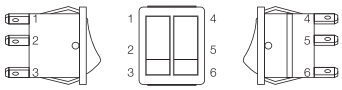
A,Q	0.75 to 3.3mm
L,B,T	0.75 to 2.5mm
R	0.75 to 3.0mm



Terminal spacing -
Contacts 10.8 between centres (twin units)

Twin units

Two single switches or a switch and an indicator light can be assembled side by side in one double Contact body.
For 5500 range panel cut-out details (L, B and T) call sales.



For twin units the first set of order format details refer to the left hand unit, when looking at the front of the assembly. (This has terminal numbers 1, 2 & 3)

Lamp Voltage

— Blank

2 125V Neon

3 250V Neon

5 12Vdc LED (P Rocker) IF = 20-30mA

6 24Vdc LED (P Rocker) IF = 20-30mA

7 12V Filament

8 24Vdc Filament

Legend

— Blank

602A

Legend Colour

— Blank

B Black

W White

Options

Finish
Matt is standard.

Colour
Call factory for custom colours.
A full range is available for large orders.

Legend printing
Select from the examples or call factory for custom legends.

Lamp voltage
Call factory for details.

Blanking plate A0434 - - (SP) A0494 - - (DP)
Dummy units to fill unused panel holes.

Protective cover
Snaps on to A, L, Q or T bodies (add G after body in cat no.), this reduces panel thickness by 1.00mm.



Panel sealing washers W46 (Single Contact) and W42 (Double Contact) are available for these body types, this reduces panel thickness by 2mm.

For all options call the factory.

Examples


C5503AL - - -


C5500AL - - -


C5503PL - - -


C5503A/C5430AL


C5503A/C5503AL


C5503P/C5503PL

Downloaded from Arrow.com.

1500 Twin Units Switches and Indicators

16A 250Vac



Key Features

- Twin unit rocker switch
- Choice of switching circuits including 3 position
- Push-on, solder and PCB terminals
- Choice of bezel styles
- Choice of panel cut outs
- Matching indicator
- Single Contact switches
- Splash resistant option
- Panel cut out 'A' style: 27.2 x 22.3mm

Approvals and Specifications

16(4)A 250Vac T125 **(Pending)**

UL 16A 250Vac
UL (2 posn) 250Vac 1hp, 125Vac 1/2hp, (3 posn) 250 Vac
1/2hp, 125Vac 1/4hp
UL 85°C

For versions with High Inrush or for 50,000 operations,
3mm contact gap except where marked µ.

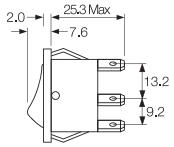
Terminal	Function	Rocker	Body	Finish	Body Colour	Rocker Colour
C 6.3 x 0.8, 9.1	Approvals & ratings vary with function ON OFF Switches - ON when pressed over terminal 1 or 4 1 2 3 4 5 6	**A** Softline (Matt only)	Panel Cut - outs / Bezel **A** 27.2 27.3 / 22.3/22.4 Gloss or Matt / 30.2 / 25.0	**M** Matt	**B** Black	Un-Lit
H 4.8 x 0.8, 9.1	**1500** ON - OFF	**B** Softline (Matt only)	**B** 30.0 30.1 / 22.1/22.2 Matt only / R3.5 / 33.4 / 25.0	**G** Gloss	**W** White	**B** Black **R** Red
T Ø2.1, 7.0 Solder	**1510 µ** ON - ON	**W** Softline (Matt only)	**L** 30.0 30.1 / 22.1/22.2 Matt only / R1.0 / 32.0 / 25.0	Applies to both Rocker & Body		**W** White
K 2.0, 1.2, 9.1	**1520 µ** ON - OFF - ON	**X** Softline (Matt only)	**Q** 28.2 28.3 / 22.3/22.4 Gloss or matt / R1.6 / 30.2 / 25.0			Lit **A** Amber
X 4.0, 9.1	**0430** Indicator	**A** Softline (Matt only)	**R** 28.4 28.5 / 25.3/25.4 Matt only / 33.2 / 28.9 **T** 28.2 28.3 / 22.3/22.4 Matt only / R1.6 / 30.2 / 25.0			**C** Clear **G** Green **R** Red

Downloaded from Arrow.com.

Dimensions

Panel thickness

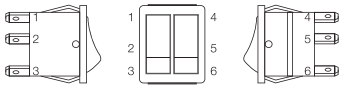
A,Q	0.75 to 3.3mm
L,B,T	0.75 to 2.5mm
R	0.75 to 3.0mm



Call sales for terminal spacing details

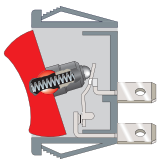
Twin units

Two single switches or a switch and an indicator light can be assembled side by side in one double Contact body.



For twin units the first set of order format details refer to the left hand unit, when looking at the front of the assembly.
(This has terminal numbers 1, 2 & 3)

Splash Resistant



Feather edge seals and a close fitting collar protect current carrying parts from moisture.

B option has Hytrel collar/ seals for enhanced protection.

Insert Colour	Lamp Voltage	Legend	Legend Colour	Options
— Blank	— Blank	— Blank	— Blank	Finish Matt is standard.
R Red	**2** 125V Neon	**602A**	**B** Black	Colour Call factory for custom colours. A full range is available for large orders.
W White	**3** 250V Neon		**W** White	Legend printing Select from the examples or call factory for custom legends.
	5 12Vdc LED (P Rocker)			Lamp voltage Call factory for details.
	6 24Vdc LED (P Rocker)			
	7 12V Filament			
	8 24Vdc Filament			

Examples


C1500A/C1500AL


C1500A/C0430AL


C1500X/C1500XL


C1520A/C1510AL


C1500A/C1520AL


C0430A/C0430AL

Downloaded from Arrow.com.

1550 Standard and 1350 High Inrush Switches

150A to EN61058-1 and 16A 250Vac



Key Features

- Standard rocker switch
- 1350/53 high inrush
- Choice of switching circuits including 3 position
- Push-on, solder and PCB terminals
- Choice of bezel styles
- Choice of panel cut outs
- Matching indicator
- Double Contact
- Splash resistant option
- Panel cut out 'A' style: 27.2 x 22.3mm

Approvals and specifications

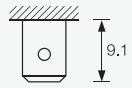
1550 Series 16(4)A 250Vac T125 **(Pending)**

UL 16A 250Vac, (2 posn) 250Vac 1hp, 125Vac 1/2hp, 1350 72 Vdc 7A
(3 posn) 250 Vac 1/2hp, 125Vac 1/4hp.
UL 85°C

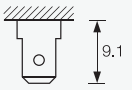
In house test:
10A 24Vdc—Indicative rating only. NB Types fitted with Neon will not illuminate for low DC voltage applications.

1330 Series 16(6)A 250Vac T125 5E4 (50,000 Ops)
1350 Series 16(6)A 250Vac T125 5E4 (50,000 Ops)
150A Inrush to EN61058-1.

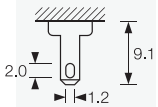
Terminal

C


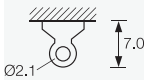
6.3 x 0.8

H


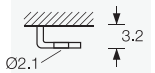
4.8 x 0.8*

K


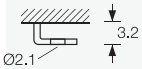
2.8 x 0.8*

T


Solder

U


Right angle "T" solder terminal

X


PCB 0.8Sq*

Function

Standard 1550

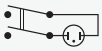
ON - OFF

1551
HP rating N/A

ON - OFF
(momentary ON)

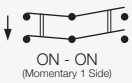
1552
HP rating N/A

ON - OFF
(momentary OFF)

1553
Not W, X or B rocker

ON - OFF
Lit

1560 µ

ON - ON

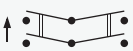
1561 µ
HP rating N/A

ON - ON
(Momentary 1 Side)

1562 µ
In house tests only

2 Circuit
ON - ON

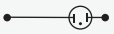
1570 µ
125V & 250V 1/2 HP
H terminal rated T100 only H terminal rated T100 only

ON - OFF - ON

1571 µ
HP rating N/A
H terminal rated T100 only

ON - OFF - ON
(momentary 1 side)

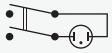
1572 µ
HP rating N/A
H terminal rated T100 only

ON - OFF - ON
(momentary 2 sides)

0480
X terminal N/A


High Inrush 1350
Not W, X or B rocker

ON - OFF

1353
Not W, X or B rocker

ON - OFF
Lit

High Inrush 1300
ON - OFF

Rocker

A
Softline Matt


B
Splash resistant Softline

V Curved

Matt or Gloss
Gloss only
Lit (not momentary)

W Splash resistant Curved

P Lit window Matt

Lit (not momentary)

X Two colour Matt

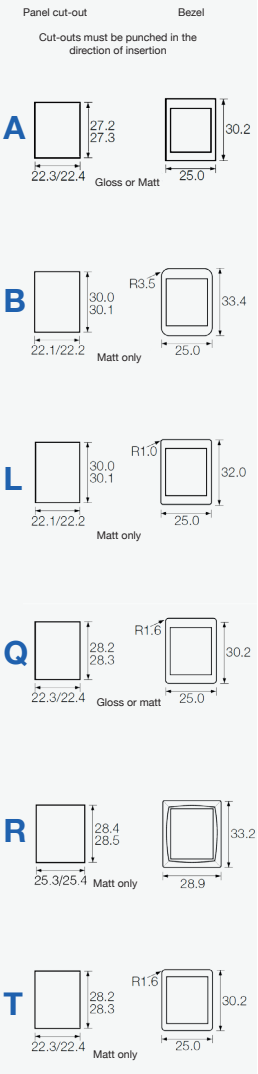
(ON OFF only - not momentary)

R Round


F Flat Lens Gloss (0480)


A Softline lens Matt (0480 only) as F but with raised profile


Body



Downloaded from Arrow.com.

Approvals and specifications (continued)

UL 20A 250Vac 1hp, 125Vac 1/2hp.
UL 72Vdc 7A, 36Vdc 14A.
UL 85°C.

In house test:
20A 24Vdc—Indicative rating only

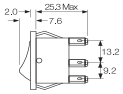
3mm contact gap except if marked μ.

Splash Resistance



1300 High inrush, positive break switching
The 1300 series mechanism ensures contact welds formed at
switch-on are positively separated by the plunger tube acting directly
on the step in the moving contact.

Dimensions



Panel thickness
A,Q 0.75 to 3.3mm
L,B,T 0.75 to 2.5mm
R 0.75 to 3.0mm

Finish	Body Colour	Rocker Colour	Insert Colour	Lamp Voltage	Legend	Legend Colour
M Matt	**B** Black	Un-Lit **B** Black	— Blank	— Blank	— Blank	— Blank
G Gloss	**W** White	**R** Red	**R** Red	**2** 125V Neon	**602A**	**B** Black
Applies to both Rocker & Body		**W** White	**W** White	**3** 250V Neon		**W** White
		Lit **A** Amber		**5** 12Vdc LED (P Rocker)		
		G Green		**6** 24Vdc LED (P Rocker)		
		C Clear		**7** 12V Filament		
		R Red		**8** 24Vdc Filament		

Examples



C1350AL - - -



C1550XL - - -



C1553PL - - -



C1553RA ---
Shown with M614 bezel cover



Optional snap-in M441 barrier



C1553AA with M616 guard Cut-out 22.0/22.1 x 29.4/29.5 Guard accepts "A" body only



C0480RA ---
Shown with M614 bezel cover



C0480AL - - -

Options

Finish
Matt is standard.

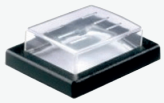
Colour
Call sales for custom colours.
A full range is available for large orders.

Legend printing
Select from the examples or
call sales for custom legends.

Lamp voltage
Call sales for details.

Blanking plates A0494
Dummy units to fill unused panel holes.

Protective cover
Snaps on to A, L, Q or T bodies (add G after body in cat no). This reduces panel thickness by 1mm.



Panel sealing washer W42 is available for the above body sizes. This reduces panel thickness by a further 1.00mm.
Covers are not suitable for momentary types.

For all options call sales.

Downloaded from Arrow.com.

1550 Standard & 1350 High Inrush Switches

150A to EN61058-1 and 16A 250Vac250Vac



Key Features

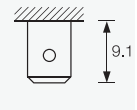
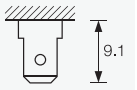
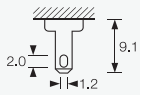
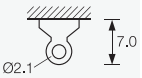
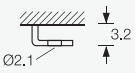
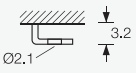
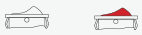
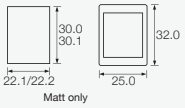
- Standard rocker switch
- 1350/53 high inrush
- Choice of switching circuits including 3 position
- Push-on, solder and PCB terminals
- Choice of bezel styles
- Choice of panel cut outs
- Matching indicator
- Double Contact
- Option with guard & cover
- DC LED Illumination Available for “P“ Rocker
- Bezel size ‘G’ style 32.0 x 25.0

Approvals and specifications

1550 Series 16(4)A 250Vac T125 **(Pending)**

UL 16A 250Vac, (2 posn) 250Vac 1hp, 125Vac 1/2hp,
(3 posn) 250 Vac 1/2hp, 125Vac 1/4hp.
UL 85°C.

1350 series 16(4)A 250Vac T125 1E4 (10,000 Ops.)
1330 series 16(6)A 250Vac T125 1E4 (10,000 Ops.)
150A Inrush to EN61058-1.

Terminal	Function	Rocker	Body	Finish	Body Colour	Rocker Colour
C  6.3 x 0.8 **H**  4.8 x 0.8* **K**  2.8 x 0.8* **T**  Solder **U**  Right angle T Solder (Not DP) **X**  PCB 0.8Sq* *Contact sales for details on 1350 series	**Standard 1550** ON - OFF **1551** HP rating N/A ON - OFF (momentary ON) **1552** HP rating N/A ON - OFF (momentary OFF) **1553** Not W, X or B rocker ON - OFF Lit **1560 µ** ON - ON **1561 µ** HP rating N/A ON - ON (Momentary 1 Side) **1562 µ** In house tests only ON - ON 2 Circuit **1570 µ** 125V & 250V 1/2 HP H terminal rated T100 onlyH terminal rated T100 only ON - OFF - ON **1571 µ** HP rating N/A H terminal rated T100 only ON - OFF - ON (momentary 1 side) **1572 µ** HP rating N/A H terminal rated T100 only ON - OFF - ON (momentary 2 sides) **High Inrush 1350** Not W, X or B rocker ON - OFF **1353** Not W, X or B rocker ON - OFF Lit **High Inrush 1300** ON - OFF	**A** Softline Matt  **V** Curved  Matt or Gloss — Gloss only Lit (not momentary) **P** Lit window Matt  Lit (not momentary)	Panel cut-out — Bezel Cut-outs must be punched in the direction of insertion **H**  Matt only **G**  Matt only	**M** Matt **G** Gloss Applies to both Rocker & Body	**B** Black **W** White	Un-Lit **B** Black **R** Red **W** White Lit **A** Amber **G** Green **C** Clear **R** Red

Downloaded from Arrow.com.

Approvals and specifications cont..

In house test:
10A 24Vdc—Indicative rating only

UL 20A 250Vac 1hp, 125Vac 1/2hp.
UL 72Vdc 7A, 36Vdc 14A, UL 85°C.

In house test:
20A 24Vdc—Indicative rating only

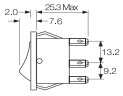
3mm contact gap except if marked μ

Splash Resistance



1350 High inrush, positive break switching
The 1350 series mechanism ensures contact welds formed at
switch-on are positively separated by the plunger tube acting directly on the step in the moving contact.

Dimensions



Panel thickness
G, H 0.75 to 2.5mm

Terminal spacing - Contacts 10.2 between centres

Insert Colour

— Blank

R Red

W White

Lamp Voltage

— Blank

2 125V Neon

3 250V Neon

5 12Vdc LED (P Rocker)

6 24Vdc LED (P Rocker)

7 12V Filament

8 24Vdc Filament

Legend

— Blank

602A

Legend Colour

— Blank

B Black

W White

Options

Finish
Matt is standard.

Colour
Call sales for custom colours.
A full range is available for large orders.

Legend printing
Select from the examples or call sales for custom legends.

Lamp voltage
Call sales for details.

Examples



C1553AH - - -



C1550AH - - -

Downloaded from Arrow.com.

R13 Round Rocker Switches

10A 250Vac



Key Features

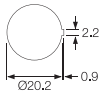
- Miniature round rocker switch
- Ratings up to 10A, 250Vac
- Single & double Contact
- Illuminated & nonilluminated, neon andLED
- Choice of actuators
- Matching indicator
- Panel cut out: 20.2 dia.

Approvals and specifications

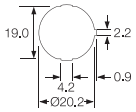
RoHS compliant
Single Contact has µ contact gap.

Special products
Are made to order and can be supplied with a range of body and rocker / lens colours, print & lamp voltage.

Dimensions

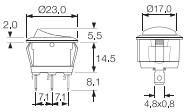


Snap fixing into
2.0 to 3.0mm panels

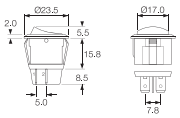


Snap fixing into
0.7 to 3.0mm panels

Single Contact



Double Contact

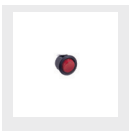


Protective cover L188



Snaps on to bodies (not R13 211 or R13 112LP), this reduces maximum acceptable panel thickness to 2.4mm.

Examples



R13 112B NAA



R13 112A AAA



R13 112A2 ---

R13	/112	/ A	/ B	/ B	/ 3	/ 2	/ 602A	/ W	/L188
Series	Type	Function	Body Colour	Rocker Colour	Insert Colour	Lamp Voltage	Legend	Legend Colour	Legend Colour

Downloaded from Arrow.com.

Product details



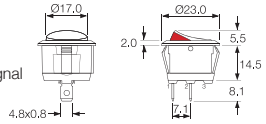
SP ON - OFF µ
Cat no.
R13 112A AAA



SP ON - OFF µ
Lit 230V
Cat no.
R13 112B NAC



SP ON - OFF µ
Bright colour ON signal
Cat no.
R13 112A2 - -





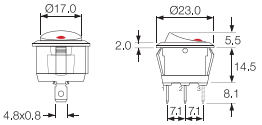
SP ON - OFF µ
Cat no.
R13 112A AAB

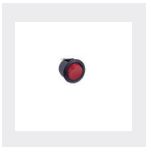


SP ON - ON µ
Cat no.
R13 112C AAA



SP ON - OFF µ
Lit Window
Cat no.
R13 112B2 - -





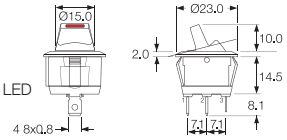
SP ON - OFF µ
Lit 230V
Cat no.
R13 112B NAA



SP ON - OFF - ON µ
Cat no.
R13 112D AAA



SP ON - OFF µ
Paddle tip has red LED
Cat no.
R13 112LP - -





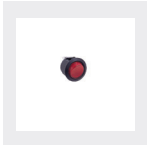
SP ON - OFF µ
Lit 230V
Cat no.
R13 112B NAB



SP ON - OFF µ
(Momentary ON)
Cat no.
R13 208F AAA*



DP ON - OFF
Cat no.
R13 244A AAA



DP ON - OFF
Lit 230V
Cat no.
R13 244B NAA

Downloaded from Arrow.com.

Well known for their quality and reliability, Bulgin's toggle switches are cost effective solutions to many existing applications. These switches offer features at an attractive price point often well below that of the existing competition.

- Nylon and Metal switch variants
- Multiple Lever Options
- Ratings up to 20A, 250V ac - 277V ac
- IP67 panel seal versions, supplied complete with gaskets (3900 Series – All Variants)
- Single and double Contact
- Choice of circuit options including 3 position and momentary
- Mounting hole: 12.2mm diameter.
- Sealing accessories available
- Quick Connect, Solder, Screw and PCB Termination Options



Downloaded from Arrow.com.

3900 Metal Toggle Switches

16A 250Vac - IP67 Sealed Versions

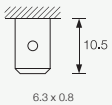


Key Features

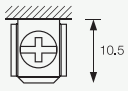
- Metal toggle switches
- Ratings up to 20A, 277V ac
- Single and double Contact
- Choice of circuits including 3 position and momentary
- Sealed version supplied complete with gaskets
- Panel seal version to IP67
- 6.3mm terminals
- Guard option

Terminal

C

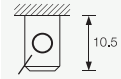


S



Screw & Clamp

T



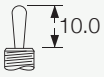
Solder

Function

Single Contact	Double Contact
3900 ON - OFF	**3950** ON - OFF
3901 ON - OFF (momentary ON)	**3951** ON - OFF (momentary ON)
3902 ON - OFF (momentary OFF)	**3952** ON - OFF (momentary OFF)
3910 ON - ON	**3960** ON - ON
3911 ON - ON (momentary 1 side)	**3961** ON - ON (momentary 1 side)
3920 ON - OFF - ON μ	**3970** ON - OFF - ON μ
3921 ON - OFF - ON μ (momentary 1 side)	**3971** ON - OFF - ON μ (momentary 1 side)
3922 ON - OFF - ON μ (momentary 2 sides)	**3972** ON - OFF - ON μ (momentary 2 sides)

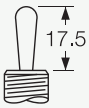
Actuator

A



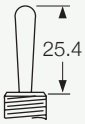
Metal
Metal toggle finish is nickel plate

B

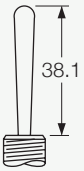


Metal
Metal toggle finish is nickel plate

D



E



Metal toggle finish is nickel plate

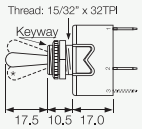
F



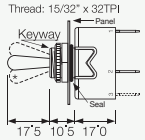
Metal toggle finish is nickel plate

Body

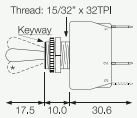
A Single Contact



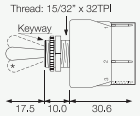
E Panel sealed, single Contact



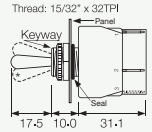
A Double Contact, without barrier



B Double Contact, with barrier

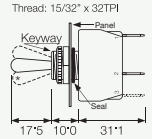


F Panel sealed, double Contact, with terminal barrier



Switches with F toggles have double Contact bodies, regardless of circuit

G Panel sealed, double Contact, without terminal barrier



Options

Neck Seal M539
Actuator is visible



Cover M1080



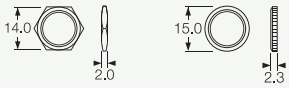
Covers have internal nylon nuts

M1080-2



Covers have internal metal hex nuts

Fixing nuts
Nickel plated brass are supplied



Knurled Front nut
Panel thickness 4.0 with backnut

Plate P236
Plate SP or DP



Downloaded from Arrow.com.

Approvals and specifications

ENEC

ENEC Ratings
3900, 3901, 3902, 3950, 3952, 3960, 3961
16(4)A 250Vac

3910, 3911, 3920, 3921, 3922, 3951, 3970, 3972
10(4)A 250Vac

3900, 3950	3910, 3901, 3952, 3960, 3961, 3970, 3971, 3972
20A, 277Vac	16A, 277Vac
1 HP, 250Vac	1 HP, 250Vac
1/2 HP, 125Vac	1/2 HP, 125Vac
7A, 72Vdc	7A, 72Vdc
14A, 36Vd	14A, 36Vdc

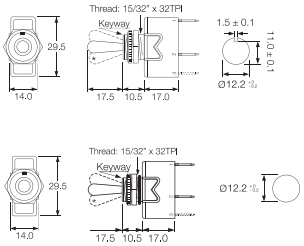
Approvals and ratings vary with function.
3mm contact gap except where marked µ.

Dimensions

mm) * Indicates ON position (for ON - OFF switches)

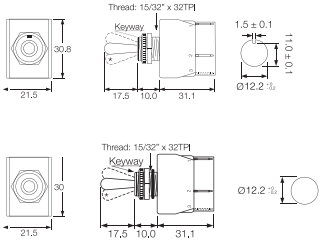
Single Contact

(C terminals shown)



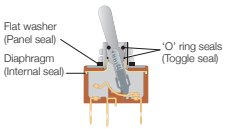
Double Contact

(C terminals shown with barrier)



Toggle Switch - sealed version

BE and BF types



Guard TG1-RED

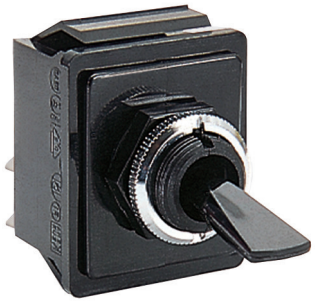


Examples



C3900BE - - - C3920BA - - - C3950BF - - - C3972BB - - -

Downloaded from Arrow.com.



Key Features

- Nylon toggle switches
- Ratings up to 20A, 250V ac
- Single and double Contact
- Wide choice of terminals
- Choice of circuit options including 3 position
- Flat & round actuator options

Approvals and specifications

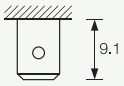
16(4)A 250Vac T85 (ENEC approval pending)

UL 20A 250Vac Non Ind (Single Contact)
UL 16A 250Vac Non Ind (Double Contact)
UL (2 pos types) 250Vac 1hp, 125Vac 1/2hp
UL (3 pos types) 250Vac 1/2hp, 125Vac 1/4hp
CSA 16A 250Vac Non Ind
UL 85°C, file E45221, CSA file LR10990
UL and CSA N/A on momentary types

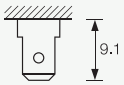
Selective “A, B, C” and “OFF, A, A+B” circuits at 5 amp also available.
3mm contact gap except where marked µ.

Terminal

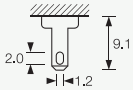
C



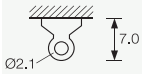
H



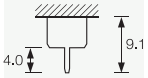
K



T



X



Function

Single Contact

Double Contact

1700
ON - OFF

1750
ON - OFF

1710 µ
ON - ON

1760 µ
ON - ON

1720 µ
ON - OFF - ON

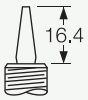
1770 µ
ON - OFF - ON

1721 µ
ON - OFF - ON µ
(momentary 1 side)

1722
ON - OFF - ON µ
(momentary 2 sides)

Actuator

H



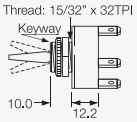
R



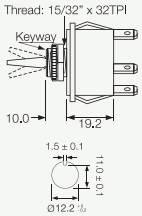
The switch is on between centre terminals (2 & 5) and the terminals over which the lever is positioned.

Body

O Single Contact



O Double Contact



Panel hole (all types)

Panel thickness (Max)
Both nuts - 3.5mm
Less backnut - 6.5mm

Options

Neck Seal M539

Material - Nitrile
(H & R Actuators)
Actuator visible



Cover M1080

Material - EPDM
(R Actuator only)



Cover M531

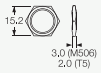
Material - PVC
(R Actuator only)



Covers have internal nylon nuts

Fixing nuts
(Standard is M506 & T92)

T5 Hex brass
M506 Hex nylon



T92 Knurled brass - slotted



M279 Knurled nylon



Plate P236
Plate SP or DP



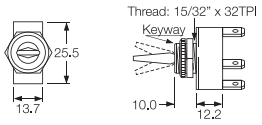
Downloaded from Arrow.com.

Dimensions

mm) * Indicates ON position (for ON - OFF switches)

Single Contact

(C terminals shown)

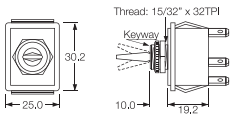




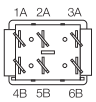
Optional
F00232PAAA
plate SP or DP

Double Contact

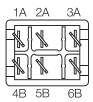
(C terminals shown)



Without barrier



With barrier



Examples



C1700R - -



C1700H - -



C1760R - -



C1750H - -

Downloaded from Arrow.com.

Long recognised as a leader in refrigerator door switches, Bulgin's wide range of types and configurations will suit almost any need. With both double contact and single contact options, our switches are not only ideal for traditional refrigerator and freezer applications but can and have been used in a variety of door applications as well.

- Door switches
- Switch rating from 0.2A, 250V ac up to 5A, 250Vac
- Splash resistant variants
- Choice of actuators
- Momentary on and momentary off switching



Downloaded from Arrow.com.

0055 Door Switches



C0056RB ---



C0055RB ---



C0056RB ---



C0055RB ---

Key Features

- Ratings up to 0.2A, 250V ac
- High temperature rating up to 125°C
- Long overtravel
- Choice of terminal orientation

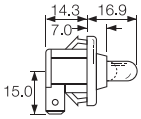
Approvals and specifications

0055 & 0056
0.2(0.2)A 250Vac 25T125 5E4
(50,000 operations)

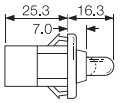
μ contact gap

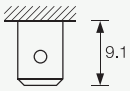
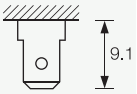
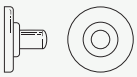
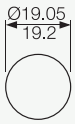
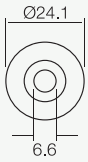
Dimensions and Properties

C0055RB



C0056RB



Terminal	Function	Actuator	Body	Options
C  9.1 6.3x0.8 **H**  9.1 4.8x0.8	**0055** ON - OFF (momentary OFF) 90° terminals **0056** ON - OFF (momentary OFF) straight terminals	**R** 	**B** Panel cut - out  Ø19.05 19.2 Panel thickness 0055 1.0 - 1.6 0056 1.0 - 2.6 Flange  Ø24.1 6.6	Finish Gloss finish only Colour White or black Call sales for custom colours.

Downloaded from Arrow.com.

3005 Refrigerator Door Switches

Splash Resistant



C3005BL - - -

C3005CB - - -

Key Features

- Door switches
- Momentary on and momentary off switching
- Splash resistant
- Choice of terminal orientation
- Choice of actuators

Approvals and specifications

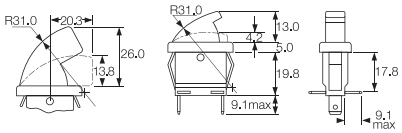
3005 25W 25T85 5E4 (50,000 Operations) 250Vac
3006 65W 25T85 5E4 (50,000 Operations) 250Vac
(ENEC approval pending)

UL 0.3A 250Vac (Black Versions Only)
UL 0.2A 125Vac (Black Versions Only)

µ contact gap

Dimensions and Properties

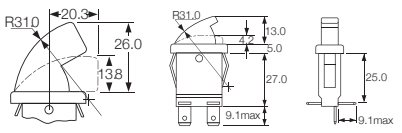
3005



Panel thickness 1.0 - 2.5mm

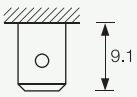
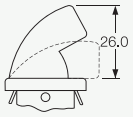
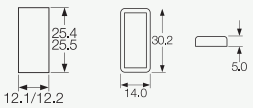
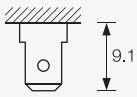
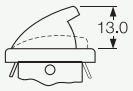
B Actuator C Actuator R, L & B terminals

3006



Panel thickness 1.0 - 2.5mm

B Actuator C Actuator R, L & B terminals

Terminal	Function	Actuator	Body	Options
C  6.3x0.8	**3005** ON - OFF (momentary OFF) 1mm max travel to OFF position	**B**  	**R** **L** **B**  Terminal direction (viewed from hinge end) Panel cut - out Bezel Bezel Profile  	Finish Gloss finish only Colour White or black Call sales for custom colours. A full range is available for large orders.
H  4.8x0.8	**3006** ON - OFF (momentary ON) 3mm min travel to ON position	**C**  		

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3100 Refrigerator Door Switches

Splash resistant



E3111BA - - -



E3102AA - - -

Key Features

- Door switches
- Ratings up to 5A, 250V ac
- Splash resistant
- Changeover, momentary ON and momentary OFF
- Choice of actuators

Approvals and specifications

5A 250Vac 25T85 5E4 (50,000 Operations)

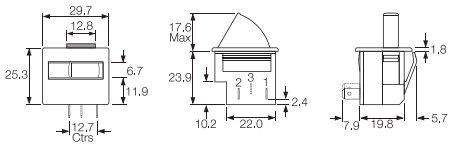
UL 5A 250Vac
UL 85°C, file E45221

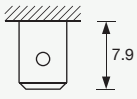
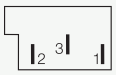
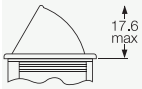
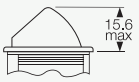
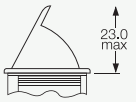
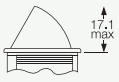
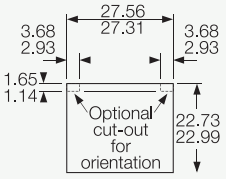
μ contact gap.
Sealed terminals option available.

Dimensions and Properties

3101 uses terminals 1,2
3102 uses terminals 1,2
3111 uses terminals 1,2,3

For details of actuator travel and switching angles call sales.



Terminal	Function	Actuator	Body	Colour	Options
E  4.8x0.5 QC	 **3101**  ON - OFF (momentary CLOSED) **3102**  ON - OFF (momentary OFF) **3111**  ON - ON (momentary 1 side)	**A**  **B**  **C**  **D** 	**A** 	**W** White **B** Black **PW** Polar White	Finish Gloss finish only Colour White or black Call sales for custom colours. A full range is available for large orders.

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3100 ATEX Refrigerator Door Switches



Key Features

- ATEX Rated up to 2.5A, 250Vac
- Splash resistant
- Changeover, momentary ON and momentary OFF
- Choice of actuators & colours

Approvals and specifications

ATEX Approved for hazardous locations
2.5A 250Vac
Compiles with:
EN IEC 60079-0 & 60079-15
Ex II 3 G & Ex nC IIA Gc
Type Examination Certificate no. UL 22 ATEX 2897U

5A 250Vac (Standard location only)
25T85 5E4 (50,000 Operations)

UL 5A 250Vac (Standard location only)
UL 85°C

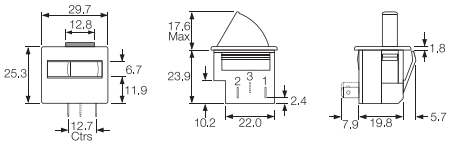
Dimensions and Properties

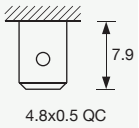
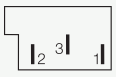
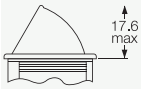
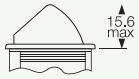
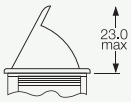
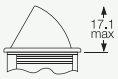
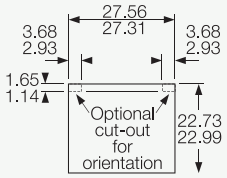
3101 uses terminals 1,2
3102 uses terminals 1,2
3111 uses terminals 1,2,3

μ contact gap.

For details of actuator travel and switching angles call sales.

Finish: Gloss finish only



Terminal	Function	Actuator	Body	Colour	Options	Approval
E  4.8x0.5 QC	 **3101**  ON - OFF (momentary CLOSED) **3102**  ON - OFF (momentary OFF) **3111**  ON - ON (momentary 1 side)	**A**  **B**  **C**  **D**  	**A**  	**W** White **B** Black **P** Polar White Call sales for custom colours. A full range is available for large orders.	**A** Standard Call sales for plated contacts and sealed terminal options.	**EX** ATEX Approved

Part Code System

E	31XX	X	A	X	X	X
Terminal E	**Function** 3101 3102 3111	**Actuator Type** A B C D	**Body** A	**Colour** W B P	**Options** A	**Approval** EX

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3140 Refrigerator Door Switches

Splash resistant



HK3141AA - - -



H3145AA - - -

Key Features

- Door switches
- Ratings up to 5A, 250V ac
- Splash resistant
- Momentary action
- Choice of actuators
- 2 circuit switch

Approvals and specifications

5A 250Vac 25T85 5E4 (50,000 Operations)

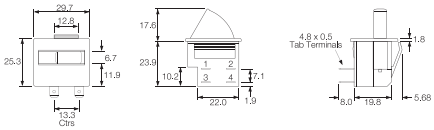
UL 5A 250Vac
UL 85°C

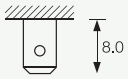
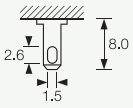
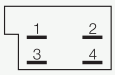
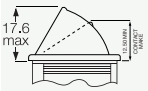
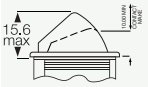
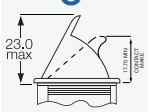
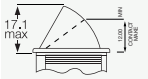
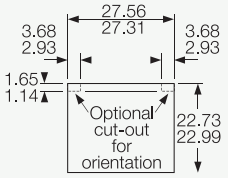
3141, μ contact gap.
3145 and 3146, 3mm contact gap.

Sealed terminals option available.

Dimensions and Properties

3141 uses terminals 1,2,3,4
3145 uses terminals 3,4
3146 uses terminals 1,2



Terminal	Function	Actuator	Body	Colour	Options
H  4.8x0.8 **K**  2.8x0.8 Standard format is H terminals in positions 1 & 2 and K terminals in positions 3 & 4 For sealed terminals call sales	 **3141** ON - ON (momentary) **3145** ON - OFF (momentary OFF) **3146** ON - OFF (momentary ON)	**A**  **B**  **C**  **D** 	**A** 	**W** White **B** Black **PW** Polar White	Finish Gloss finish only Colour White or black Call sales for custom colours. A full range is available for large orders.

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3140 ATEX Refrigerator Door Switches



Key Features

- ATEX Rated up to 2.5A, 250Vac
- Splash resistant
- Momentary action
- Choice of actuators & colours
- 2 circuit switch

Approvals and specifications

ATEX Approved for hazardous locations
2.5A 250Vac
Compiles with:
EN IEC 60079-0 & 60079-15
Ex II 3 G & Ex nC IIA Gc
Type Examination Certificate no. UL 22 ATEX 2897U

5A 250Vac (Standard location only)
25T85 5E4 (50,000 Operations)

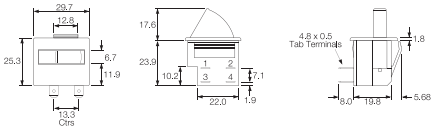
UL 5A 250Vac (Standard location only)
UL 85°C

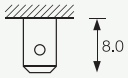
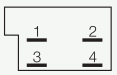
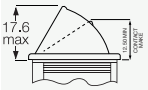
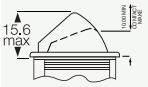
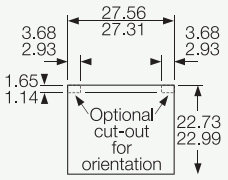
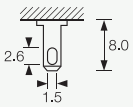
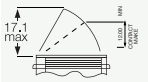
Dimensions and Properties

3141 uses terminals 1,2,3,4
3145 uses terminals 3,4
3146 uses terminals 1,2

3141, μ contact gap.
3145 and 3146, 3mm contact gap.

Finish: Gloss finish only



Terminal	Function	Actuator	Body	Colour	Options	Approval
H  4.8x0.8	 **3141**  ON - ON (momentary)	**A**  **B**  	**A**  	**W** White **B** Black	**A** Standard	**EX** ATEX Approved
K 3141 Only  2.8x0.8	**3145**  ON - OFF (momentary OFF)	**C**  		**P** Polar White		
Standard format is H terminals in positions 1 & 2 and K terminals in positions 3 & 4 (HK3141)	**3146**  ON - OFF (momentary ON)	**D**  		Call sales for custom colours. A full range is available for large orders.	Call sales for plated contacts and sealed terminal options.	

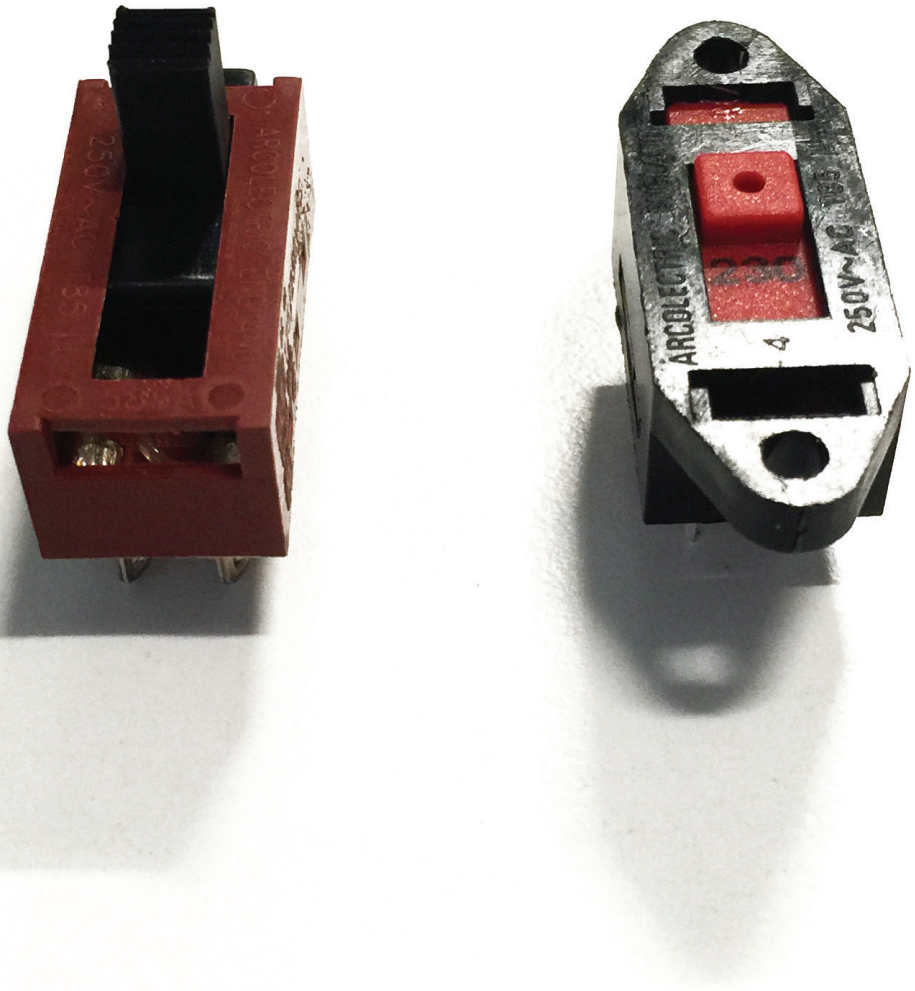
Part Code System

X	314X	X	A	X	X	X
Terminal HK (3141 only) H	**Function** 3141 3145 3146	**Actuator Type** A B C D	**Body** A	**Colour** W B P	**Options** A	**Approval** EX

Downloaded from Arrow.com.

With up to 5 switching positions as well as multiple terminal, circuit and slider options, Bulgin's board mounted power slide switches can be configured to suit your needs. We also offer a wide range of voltage selector types that can be either snapped into a panel or flange mounted.

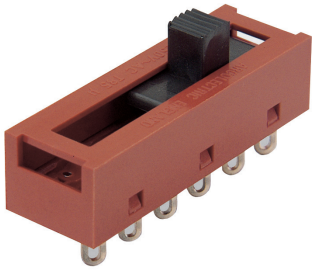
- Ratings up to 16A, 250V ac
- PCB and solder terminals
- Voltage Selector Models
- Snap in and flange mounting
- 2, 3, 4 and 5 position
- Choice of circuits
- Choice of actuators



Downloaded from Arrow.com.

2000 Slide Switches - up to 5 position

10A 250Vac



Key Features

- Slide switches
- Ratings up to 16A, 250V ac
- PCB and solder terminals
- 2, 3, 4 and 5 position
- Choice of circuits
- Choice of actuators

Approvals and specifications

UL 16A 250Vac Non Inductive
UL 4A 300Vac
UL 65°C

μ contact gap
Please specify: Standard action (SP116) or Light action (SP118).
2000 series lubrication is inorganic and does not degrade plastics.

Terminal	Series	Position	Circuit	Slider
K 2.8 x 0.8	**2**	**2** Switching positions	**10** 5 3 1 / 6 4 2	**0** 5.8Sq, 6.0, 21.0
R 2.8 x 0.8			**20** 5 3 1 / 6 4 2	**6** 5.8Sq, 6.0, 15.5
T Solder			**30** 5 3 1 / 6 4 2	**D** 5.8Sq, 9.5, 15.5
X PCB 0.8 Sq.			**40** 5 3 1 / 6 4 2	**L** 8.0, 7.9, 2.3 Blade, 15.5, 5.8
Y PCB 0.8 Sq.		**3** Switching positions	**10** 7 5 3 1 / 8 6 4 2	**1** 7.9, 6.0, 36.8, 5.8
For mounting stability switches have extra "support" terminals			**20** 7 5 3 1 / 8 6 4 2	**7** 5.8Sq, 4.0, 15.5
* Nominal - Dimension varies with body type. For exact figure call sales			**30** 7 5 3 1 / 8 6 4 2	**E** 7.0, 8.2, 9.2, 2.0 Blade, 21.0, 5.8
			40 7 5 3 1 / 8 6 4 2	**N** 4.2, 7.5, 21.0, 5.8
		4 Switching positions	**10** 9 7 5 3 1 / 10 8 6 4 2	**2** 5.8Sq, 1.7, 21.0, Ø2.0 Hole
			20 9 7 5 3 1 / 10 8 6 4 2	**9** 5.8Sq, 3.5, 15.5
			30 9 7 5 3 1 / 10 8 6 4 2	**G** 7.9, 6.0, 1.4 Slot, 36.8, 5.9
			40 9 7 5 3 1 / 10 8 6 4 2	**P** 7.7, 4.0, 15.5, 5.6
		5 Switching positions	**10** 11 9 7 5 3 1 / 12 10 8 6 4 2	**3** 5.8 Sq, 5.5, 2.4 Slot, 11.0, 15.5
			20 11 9 7 5 3 1 / 12 10 8 6 4 2	**A** 5.8Sq, 9.5, 21.0
			30 11 9 7 5 3 1 / 12 10 8 6 4 2	**H** 5.7Sq, 4.7, 21.0
			40 11 9 7 5 3 1 / 12 10 8 6 4 2	**R** Ø5.0, 2.4, 15.5, 5.8
				4 Ø2.5, 3.0, 15.5, 5.8Sq
				B Ø2.9, 3.0, 36.8, 5.8Sq
				J 5.7Sq, 4.7, 36.5
				S 8.0, 9.0, 2.2 Blade, 15.5, 5.8
				5 5.8Sq, 1.0, 21.0, Ø2.0 Hole
				C 5.8Sq, 2.3, 13.5, Ø2.0 Hole
				K 8.0, 5.4, 2.3 Blade, 15.5, 5.8
				T 5.8Sq, 4.6, 15.5

Downloaded from Arrow.com.

Examples


X22205C - - -


T2220EC - - -


T23206A - - -

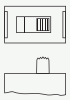

T24306A - - -


T25302A - - -


T25100A - - -

Body

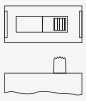
C 2 positions



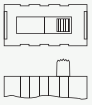
H 2 positions



A 3 positions



H 3 positions



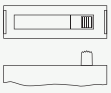
A 4 positions



H 4 positions



A 5 positions



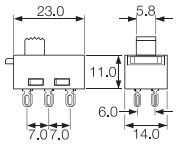
Options

Colour
Call sales for custom colours.
A full range is available for large orders.

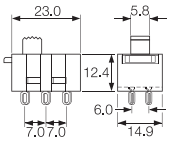
Legend printing
A wide range is available
For all options call sales

Dimensions

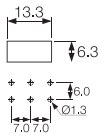
C 2 positions



H 2 positions

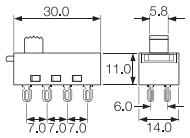


Cut-out /PCB Matrix

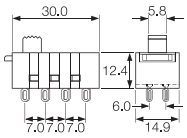


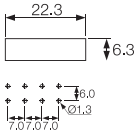
for PCB

A 3 positions



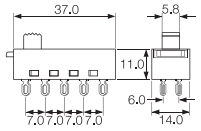
H 3 positions



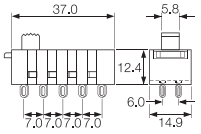


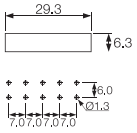
for PCB

A 4 positions



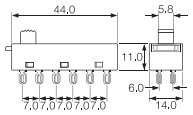
H 4 positions

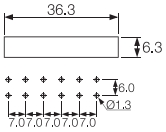




for PCB

A 5 positions



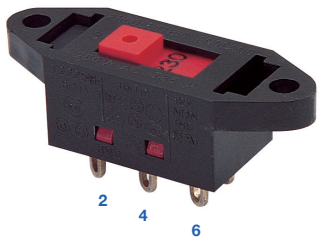


for PCB

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2000 Slide Switches - Snap fit and panel mount

10A 250Vac



115/230 is preferred legend

Key Features

- 2 way 'voltage selector'
- Ratings up to 16A, 250V ac
- Snap fit and panel mount
- PCB & solder terminals
- 2 and 3 position
- Choice of circuits
- Choice of actuators

Approvals and specifications

UL 16A 250Vac Non Inductive
UL 4A 300Vac
UL 65°C

μ contact gap
Please specify: Standard action (SP116) or Light action (SP118).
2000 series lubrication is inorganic and does not degrade plastics.

Terminal	Series	Position	Circuit	Slider
K 2.8 x 0.8 **R** 2.8 x 0.8 **T** Solder **X** PCB 0.8 Sq. For mounting stability switches have extra "support" terminals. * Nominal - Dimension varies with body type. For exact figure call sales	**2**	**2** Switching positions	**10** 5 3 1 / 6 4 2 **20** 5 3 1 / 6 4 2 **30** 5 3 1 / 6 4 2 **40** 5 3 1 / 6 4 2	**0** 5.8Sq, 6.0, 21.0 **2** 5.8Sq, 1.7, 21.0, Ø2.0 Hole **3** 5.8Sq, 2.4 Slot, 5.5, 11.0, 15.5 **4** Ø2.5, 3.0, 15.5, 5.8Sq **5** 5.8Sq, 1.0, 21.0, Ø2.0 Hole **6** 5.8Sq, 6.0, 15.5 **7** 5.8Sq, 4.0, 15.5 **8** 4.0, 18.4, 8.0 **9** 5.8Sq, 3.5, 15.5 **A** 5.8Sq, 9.5, 21.0 **C** 5.8Sq, 2.3, 13.5, Ø2.0 Hole **D** 5.8Sq, 9.5, 15.5 **E** 7.0, 8.2, 9.2, 21.0, 2.0 Blade, 5.8 **H** 5.7Sq, 4.7, 21.0 **K** 8.0, 5.4, 2.3 Blade, 15.5, 5.8 **L** 8.0, 7.9, 2.3 Blade, 15.5, 5.8 **M** 4.1, 18.4, 4.8 **N** 4.2, 7.5, 21.0, 5.8 **P** 7.7, 4.0, 15.5, 5.6 **R** Ø5.0, 2.4, 15.5, 5.8 **S** 8.0, 9.0, 2.2 Blade, 15.5, 5.8 **T** 5.8Sq, 4.6, 15.5
		3 Switching positions	**10** 7 5 3 1 / 8 6 4 2 **20** 7 5 3 1 / 8 6 4 2 **30** 7 5 3 1 / 8 6 4 2 **40** 7 5 3 1 / 8 6 4 2	

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Examples


T22208E - - -


T22308E - - -


T2230MF - - -

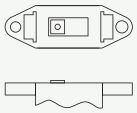

T22205B - - -


T22305B - - -

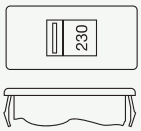

T23204B - - -

Body

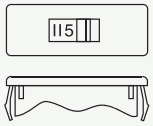
B
With mounting holes



E
Snap fit



F
Snap fit
(single contact ON OFF only)

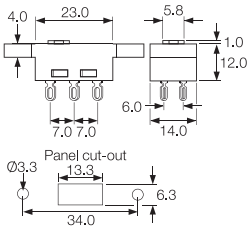


Options

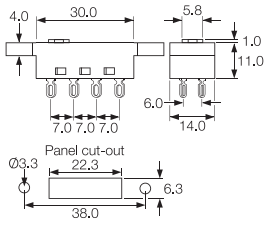
Colour
Call sales for custom colours.
A full range is available for large orders.
Standard body colour is black.

Dimensions

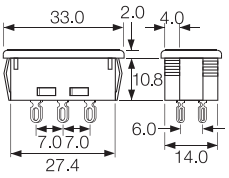
2 Pos B

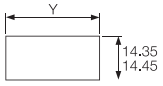


3 Pos B



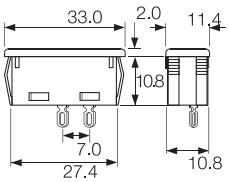
2 Pos E

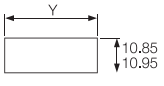




Panel thickness	Dim. Y
0.8-1.2	29.75/29.85
1.63	30.15/30.25
2.0	30.35/30.45
2.5	30.55/30.65

2 Pos F





Panel thickness	Dim. Y
0.8-1.2	29.75/29.85
1.63	30.15/30.25
2.0	30.35/30.45
2.5	30.55/30.65

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Manufactured from quality moulding and metal components to ensure a secure and reliable connection, Bulgin's battery holder range caters for battery sizes AAA(R03), AA(R6), C(R14), D(R20) and PP3(6R61), accommodating 1, 2, 3 or 4 cells.



There's a choice of fixing styles including screw and flange panel fixing, PCB and base mounting versions.

The panel mounting versions are now available in two styles; standard fixing and front panel sealed to IP67, extending the applications into harsher external environments where dust or water would inhibit equipment operation.

The open frame styles are designed to be either PCB or base mounted and most have an interlocking facility to join adjacent holders together.

Principle applications include portable equipment and memory back-up.

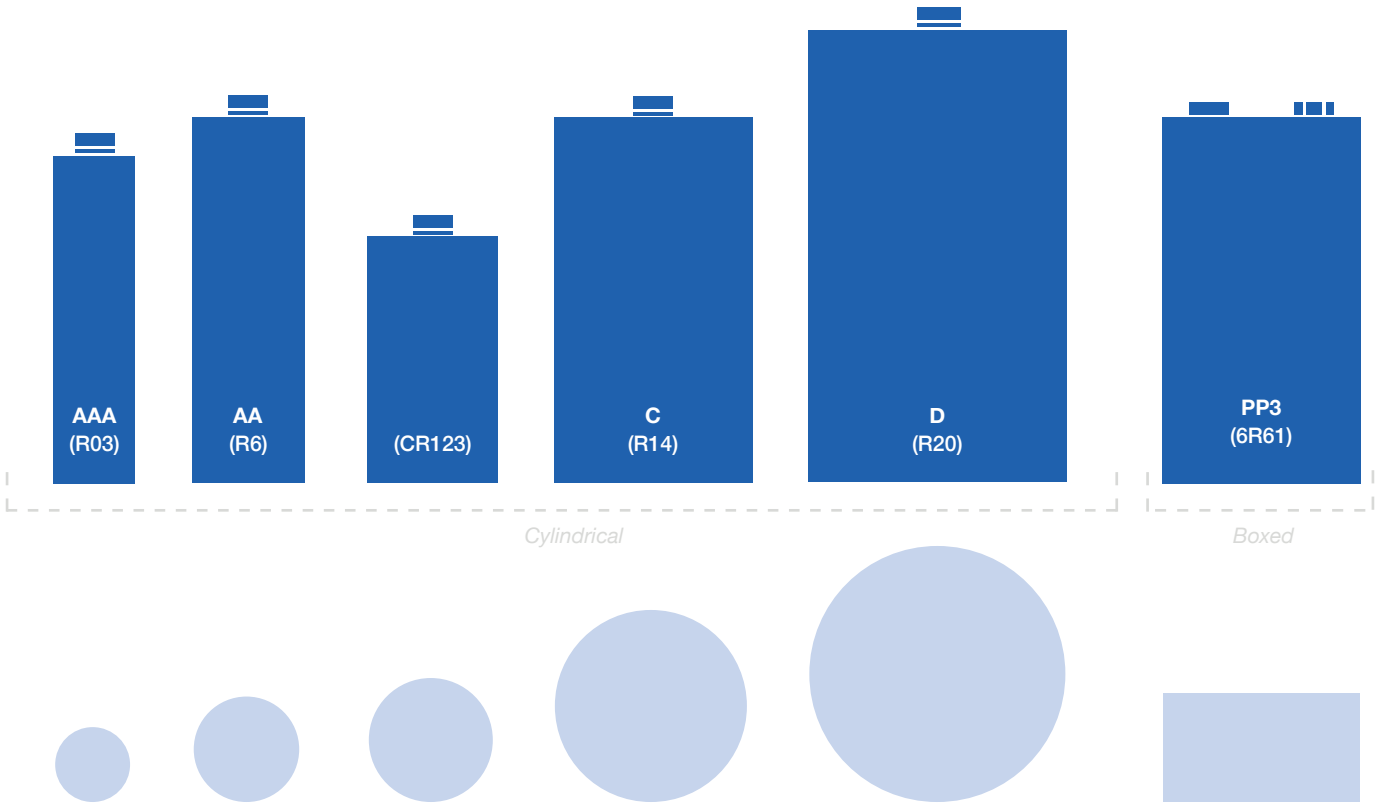
Front panel sealed to IP67 106
Panel Mounting 107
PCB/Base Mounting 109

Downloaded from Arrow.com.

Battery Holder Selector

Maximum Battery Size to BSEN 60086-1 and -2

Battery size	Battery Dimensions	No. of Cells	Mounting	Part No.
AAA (R03)	Ø10.5 x 44.5	1	PCB/Base	BX0034
AA (R6)	Ø14.5 x 50.5	1	PCB/Base	BX0035
		1	Panel	BX0011/1
		2	Panel	BX0012/1
		3	Panel	BX0013/1
		4	Panel	BX0027
		1	Panel Sealed	BXS011/1
		2	Panel Sealed Panel	BXS012/1
		3	Sealed	BXS013/1
CR123	Ø17.0 x 34.5	1	PCB/Base	BX0123
C (R14)	Ø26.2 x 50	1	PCB/Base	BX0036
		1	Panel	BX0001/1
		2	Panel	BX0002/1
		3	Panel	BX0003/1
		1	Panel Sealed	BXS001/1
		2	Panel Sealed	BXS002/1
		3	Panel Sealed	BXS003/1
D (R20)	Ø34.2 x 61.5	1	PCB/Base	BX0037
		1	Panel	BX0016
		2	Panel	BX0017
		3	Panel	BX0018
		1	Panel Sealed	BXS016
		2	Panel Sealed	BXS017
		3	Panel Sealed	BXS018
PP3 (6R61)	W26.5 x D17.5 x H48.5	1	PCB/Base	BX0033
		1	Panel	BX0023
		1	Panel	BX0023/GY
		2	Panel	BX0026



As batteries from different manufacturers may vary slightly in size, Dimensions & Drawings are approximate only.
All Bulgin Battery Holders have polarity clearly marked.

Downloaded from Arrow.com.

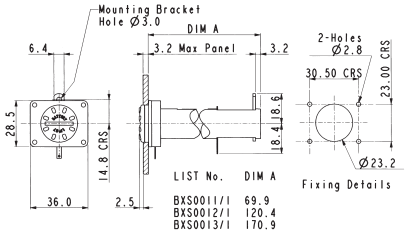
Front panel sealed to IP67

AA SIZE BATTERY HOLDER



BXS011/1

- 1, 2 or 3 Cells
- Flanged Panel Mount
- Bayonet with finger/coin slot release
- Supplied with gasket and sealing grommets for screws

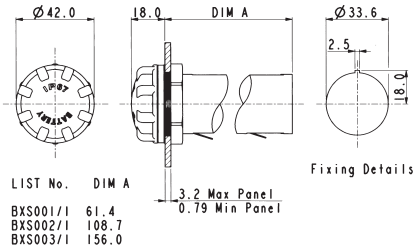


C SIZE BATTERY HOLDER



BXS001/1

- 1, 2 or 3 Cells
- Panel Mount
- Screw Cap/Hand release
- Supplied with gasket

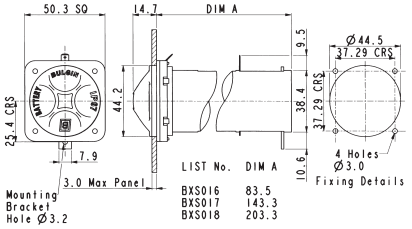


D SIZE BATTERY HOLDER



BXS016

- 1, 2 or 3 Cells
- Flanged Panel Mount
- Bayonet/finger release
- Supplied with flange gasket and sealing grommets for screws



Specification	BXS011/1, BXS012/1, BXS013/1	BXS001/1, BXS002/1, BXS003/1	BXS016, BXS017, BXS018
Battery/Cell Type:	AA (R6)	C (R14)	D (R20)
No. Cells:	BXS011/1 - 1 cell BXS012/1 - 2 cells BXS013/1 - 3 cells	BXS001/1 - 1 cell BXS002/1 - 2 cells BXS003/1 - 3 cells	BXS016 -1 cell BXS017 - 2 cells BXS018 - 3 cells
Terminations:	2.8 series tabs/solder tags	2.8 series tabs/solder tags	4.8 series tabs/solder tags
Operating Temperature:	–30°C to +70°C	–30°C to +70°C	–30°C to +70°C
Mouldings:	Nylon Glass filled Polyester Polycarbonate	Nylon Glass filled Polyester	Nylon Glass filled Polyester
Flammability Rating:	UL94V-0	UL94V-0	UL94V-0
Contacts:	Brass,Tin Plated - rear contact Nickel Silver, clean - front contact and cap contact plate	Brass, Tin Plated - front and rear contacts Nickel Silver, clean - cap contact plate	Brass, Nickel Plated - front and rear contacts and cap contact plate
Features:	Bayonet cap with finger grip and coin slot Rear support bracket	Screw on cap with finger grip Recommended torque for panel ring 1.13-1.7Nm (10-15lbf.in)	Bayonet cap with finger grip Rear support bracket
Sealing (front of panel):	Protection classification IP67, EN60529:1992+A2:2013	Protection classification IP67, EN60529:1992+A2:2013	Protection classification IP67, EN60529:1992+A2:2013
Notes:	Recommend 2 & 3 cell versions are supported by rear bracket		Recommend 2 & 3 cell versions are supported by rear bracket
RoHS	Compliant	Compliant	Compliant
Dim A (depending on number of cells):	BXS011/1 = 69.9 BXS012/1 = 120.4 BXS013/1 = 170.9	BXS001/1 = 61.4 BXS002/1 = 108.7 BXS003/1 = 156.0	BXS016 = 83.5 BXS017 = 143.3 BXS018 = 203.3

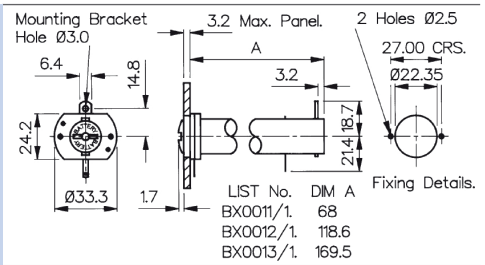
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AA SIZE BATTERY HOLDER

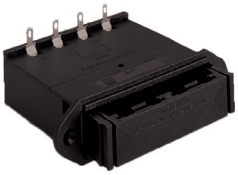


BX0011/1

- 1, 2 or 3 Cells
- Flanged Panel Mount
- Bayonet/Screwdriver release

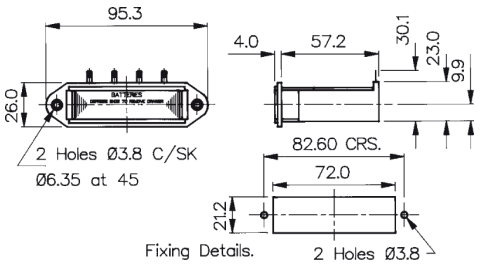


AA SIZE BATTERY HOLDER



BX0027

- 4 Cells
- Flanged Panel Mount
- Drawer function

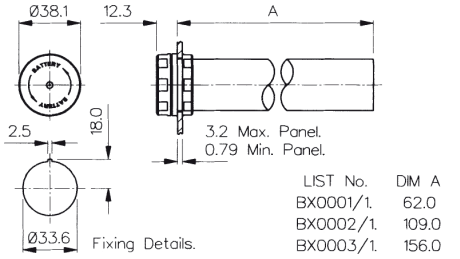


C SIZE BATTERY HOLDER



BX0001/1

- 1, 2 or 3 Cells
- Panel Mount
- Screw Cap/Hand release



Specification	BX0011/1, BX0012/1, BX0013/1	BX0027	BX0001/1, BX0002/1,BX0003/1
Battery/Cell Type:	AA (R6)	AA (R6)	C (R14)
No. Cells:	BX0011/1 - 1 cell BX0012/1 - 2 cells BX0013/1 - 3 cells	4 cells	BX0001/1 - 1 cell BX0002/1 - 2 cells BX0003/1 - 3 cells
Terminations:	2.8 series tabs/solder tags	4 solder tags (can be wired in series or in pairs)	2.8 series tabs/solder tags
Operating Temperature:	–30°C to +70°C	–30°C to +70°C	–30°C to +70°C
Flammability Rating:	UL94V-0	UL94HB	UL94V-0 (Cap = UL94HB)
Mouldings:	Glass Filled Nylon & Polyester	Glass Filled Nylon	Nylon & Glass Filled Nylon
Contacts:	Brass, Tin Plated Nickel Silver, clean	Phosphor Bronze, Tin Plated Nickel Silver, clean	Nickel Silver, clean Brass, Tin Plated
Features:	Bayonet cap with coin slot Rear support bracket	Removable loading/latching drawer	Screw on cap. Recommended torque for panel ring 1.13-1.7Nm (10-15lbf.in)
Notes:	Recommend 2 & 3 cell versions are supported by rear bracket		
RoHS	Compliant	Compliant	Compliant
Dim A (depending on number of cells):	BX0011/1 = 68 BX0012/1 = 118.6 BX0013/1 = 169.5		BX0001/1 = 62.0 BX0002/1 = 109.0 BX0003/1 = 156.0

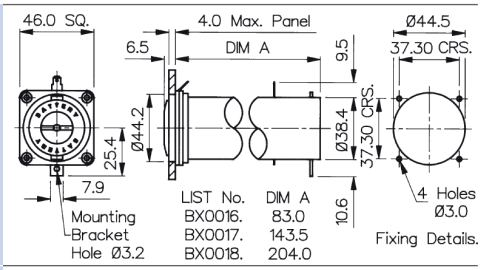
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D SIZE BATTERY HOLDER



BX0016

- 1, 2 or 3 Cells
- Flanged Panel Mount
- Bayonet/Screwdriver release

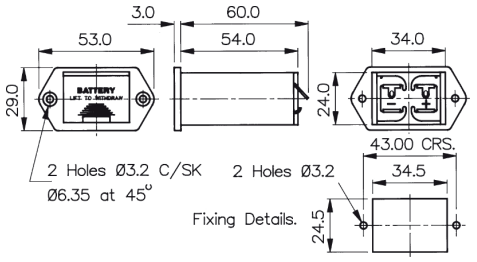


PP3 SIZE BATTERY HOLDER



BX0023
BX0023/GY

- 1 Cell
- Flanged Panel Mount
- Drawer function
- Grey version available (BX0023/GY)

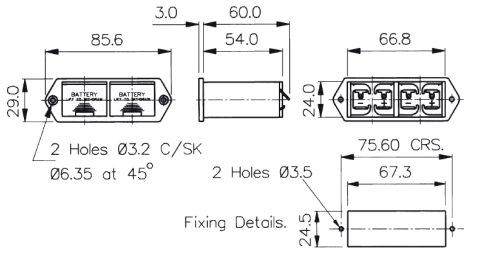


PP3 SIZE BATTERY HOLDER



BX0026

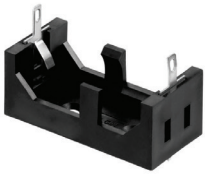
- 2 Cell
- Panel Mount
- Screw Cap/Hand release



Specification	BX0016, BX0017, BX0018	BX0023, BX0023/GY	BX0026
Battery/Cell Type:	D (R20)	PP3 (6R61)	PP3 (6R61)
No. Cells:	BX0016 -1 cell BX0017 - 2 cells BX0018 - 3 cells	BX0023 - 1 cell BX0023/GY - 1 cell (grey version)	2 cells
Terminations:	4.8 series tabs/solder tags	Solder tag	Solder tags
Operating Temperature:	–30°C to +70°C	–30°C to +70°C	–30°C to +70°C
Flammability Rating:	UL94V-0 (Cap = UL94HB)	UL94HB	UL94HB
Mouldings:	Nylon & Polycarbonate	Glass Filled Nylon	Glass Filled Nylon
Contacts:	Brass, Nickel Plated	Phosphor Bronze, Tin Plated	Phosphor Bronze, Tin Plated
Features:	Bayonet cap with coin slot Rear support bracket	Removable loading drawer	Removable loading drawer
Notes:	Recommend 2 & 3 cell versions are supported by rear bracket		
RoHS	Compliant	Compliant	Compliant
Dim A (depending on number of cells):	BX0016 = 83.0 BX0017 = 143.5 BX0018 = 204.0		

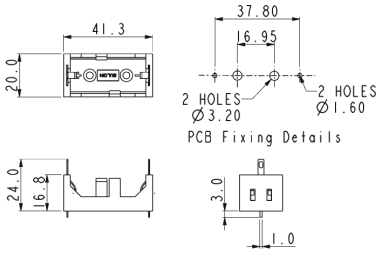
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CR123 SIZE BATTERY HOLDER



BX0123

- 1 Cell
- PCB/Base Mount
- Open style

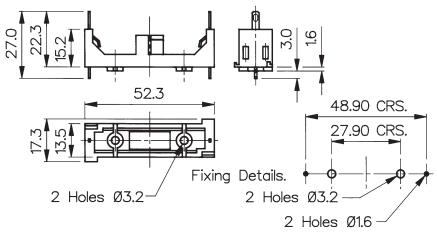


AAA SIZE BATTERY HOLDER

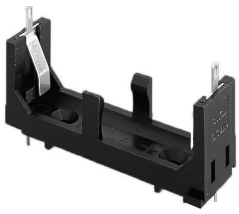


BX0034

- 1 Cell
- PCB/Base Mount
- Open style

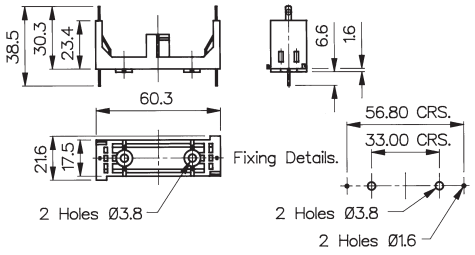


AA SIZE BATTERY HOLDER



BX0035

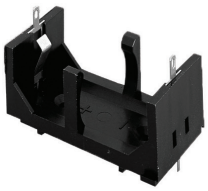
- 1 Cell
- PCB/Base Mount
- Open style



Specification	BX0123	BX0034	BX0035
Battery/Cell Type:	CR123	AAA (R03)	AA (R6)
No. Cells:	1 cell	1 cell	1 cell
Terminations:	Dual connections, PCB spills & 2.8 series tabs/solder tags. (PCB spills may be removed if required)	Dual connections, PCB spills & 2.8 series tabs/solder tags. (PCB spills may be removed if required)	Dual connections, PCB spills & 2.8 series tabs/solder tags. (PCB spills may be removed if required)
Operating Temperature:	–30°C to +70°C	–30°C to +70°C	–30°C to +70°C
Flammability Rating:	UL94HB	UL94HB	UL94HB
Mouldings:	Glass Filled Nylon	Glass Filled Nylon	Nylon & Glass Filled Nylon
Contacts:	Nickel Silver, clean	Nickel Silver, clean	Nickel Silver, clean
Features:		Interlocking for multiple assemblies	Interlocking for multiple assemblies
RoHS	Compliant	Compliant	Compliant

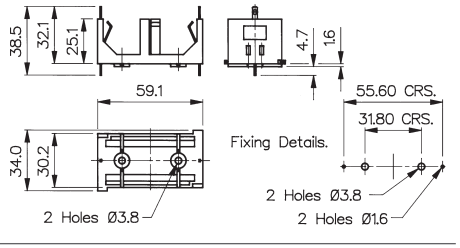
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C SIZE BATTERY HOLDER



BX0036

- 1 Cell
- PCB/Base Mount
- Open style

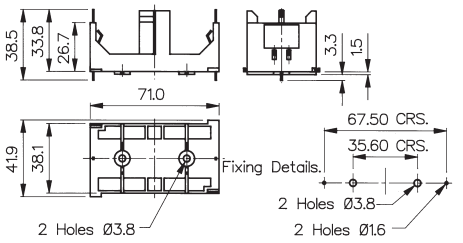


D SIZE BATTERY HOLDER



BX0037

- 1 Cell
- PCB/Base Mount
- Open style

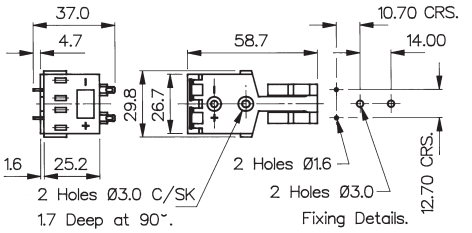


PP3 SIZE BATTERY HOLDER



BX0033

- 1 Cell
- PCB/Base Mount
- Open style



Specification	BX0036	BX0037	BX0033
Battery/Cell Type:	C (R14)	D (R20)	PP3 (6R61)
No. Cells:	1 cell	1 cell	1 cell
Terminations:	Dual connections, PCB spills & 2.8 series tabs/solder tags. (PCB spills may be removed if required)	Dual connections, PCB spills & 2.8 series tabs/solder tags. (PCB spills may be removed if required)	Dual connections, PCB spills & 2.8 series tabs/solder tags. (PCB spills may be removed if required)
Operating Temperature:	–30°C to +70°C	–30°C to +70°C	–30°C to +70°C
Flammability Rating:	UL94HB	UL94HB	UL94V-2
Mouldings:	Glass Filled Nylon	Glass Filled Nylon	Nylon & Glass Filled Nylon
Contacts:	Nickel Silver, clean	Nickel Silver, clean	Nickel Silver, clean
Features:	Interlocking for multiple assemblies	Interlocking for multiple assemblies	
RoHS	Compliant	Compliant	Compliant

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