



**THE DATASHEET OF  
MP0045/1D2GN012**



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 Arcoelectric'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.

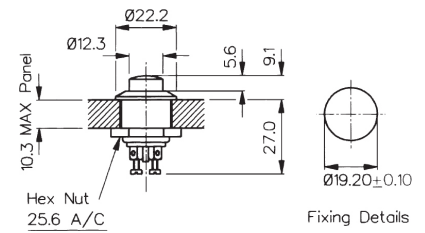


Front Panel Mounting



MP0012/Col

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

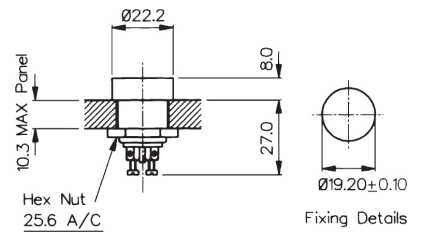


Front Panel Mounting



MP0012/1/Col

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

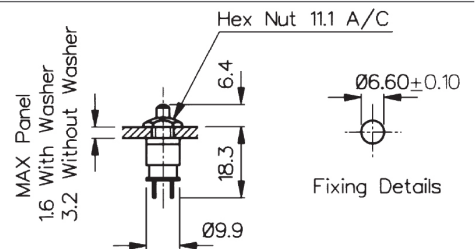


Rear Panel Mounting



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 <sup>4</sup> MΩ	>10 <sup>4</sup> MΩ	>10 <sup>4</sup> 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:	Glass Filled Nylon Brass,	Glass Filled Nylon Brass,	Glass Filled Nylon Brass,
Body:	Brass, Chrome Plated	Brass, Chrome Plated	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

# 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 nonilluminated
- 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

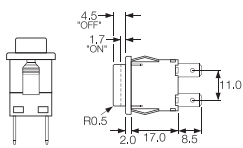
8300, 8301, 8303, 8304  
13A 250Vac SP, 250Vac 1hp, 125Vac 1/2hp

In house test:  
10(10)A 250Vac—Indicative rating only  
3mm contact gap.

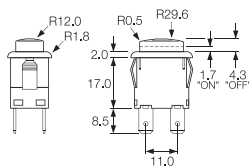
Terminal	Function	Actuator	Body Code	Body Colour								
<p><b>C</b></p>	<p>Approvals &amp; ratings vary with function Single Contact switches use terminals 1 &amp; 2 (&amp; 3)</p>		Panel cut-out ** Bezel									
	<p><b>8300</b> Single Contact ON - OFF</p>	<p><b>A</b> Standard actuator</p>	<p><b>B</b> Standard body</p>	<p><b>B</b> Black</p>								
	<p><b>8301</b> Single Contact ON - OFF (momentary ON)</p>	<p><b>H</b> Slotted for custom caps</p>		<p><b>W</b> White</p>								
<p><b>H</b></p>		<p>Slots for snap-in buttons</p>	<p><b>E</b> Softline style body with radiused bezel</p> <p>Cut-outs must be punched in the direction of insertion</p>									
	<p><b>8303</b> Single Contact ON - OFF With Light</p>	<p><b>C</b> Square actuator</p>										
<p><b>A</b></p>		<p><b>E</b> Radiused actuator</p>	<p><b>Dimensions for snap-in fixing</b></p> <table border="1"> <thead> <tr> <th>Panel thickness</th> <th>Dimension X</th> </tr> </thead> <tbody> <tr> <td>0.75-1.24</td> <td>19.1/19.2</td> </tr> <tr> <td>1.25-1.99</td> <td>19.3/19.4</td> </tr> <tr> <td>2.00-3.00</td> <td>19.7/19.8</td> </tr> </tbody> </table>	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	
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											
	<p><b>8304</b> Single Contact ON - OFF (momentary ON) with light</p>	<p><b>F</b> Small round actuator</p>										
	<p><b>8350</b> Double Contact ON - OFF</p>	<p><b>J</b> Smooth curved actuator</p>										
<p><b>K</b></p>		<p><b>M</b></p>										
	<p><b>8351</b> Double Contact ON - OFF (momentary ON)</p>	<p><b>D</b> Large round actuator</p>										
	<p><b>8353</b> Double Contact ON - OFF With light</p>											
	<p><b>8354</b> Double Contact ON - OFF (momentary ON) with light</p>											
<p><b>T</b></p>												
	<p><b>8355</b> Single Contact ON - OFF Isolated light - switched C, E &amp; M actuators only</p>											
	<p><b>8356</b> Single Contact ON - OFF Isolated light - unswitched C, E &amp; M actuators only</p>											
<p><b>X</b></p>												
<p><b>V</b></p>												

## Dimensions

Actuator A  
Body B



Actuator J  
Body E



## Examples



☐ H8350AB ---  
☐ T8350AB ---




☐ H8353JE ---  
☐ T8353JE ---



☐ H8353EB ---  
☐ T8353EB ---

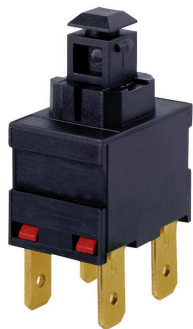


☐ H8353CB ---  
☐ T8353CB ---

Actuator Colour	Lamp Voltage	Legend	Legend Colour	Options
LIT				
<b>A</b> Amber	— None			<p><b>H</b> 12(12)A 250Vac switch rating</p> <p><b>Finish</b> Matt finish standard except on J and D actuators which are gloss</p> <p><b>Colour</b> Call sales for custom colours A full range is available for large orders</p> <p><b>Legend printing</b> Select from the examples or call sales for custom legends.</p> <p><b>Special buttons</b> Some of the many options are shown Call sales for the full range</p> <p><b>L167 Protective cover</b></p>  <p>Snaps on to switch bodies fitted with "A" or "J" style actuators, this reduces panel thickness by 0.8mm</p> <p><b>BioCote Antimicrobial Additive</b> Moulded components have antimicrobial properties using BioCote silver ion technology.</p>
<b>C</b> Clear	<b>2</b> 125V Neon			
<b>G</b> Green	<b>3</b> 250V Neon			
<b>R</b> Red	<b>7</b> 12V Filament			
UNLIT	<b>8</b> 24V Filament			
<b>B</b> Black				
<b>R</b> Red				
<b>W</b> White				

# 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

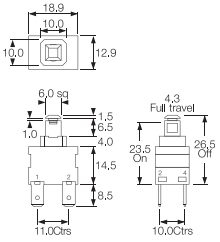
## Approvals and specifications

- ⚡ 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.

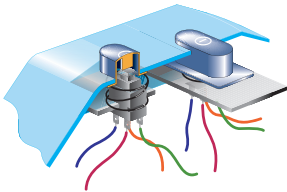
Terminal	Function	Actuator	Body Code
<p><b>C</b></p> <p>6.3 x 0.8 10.1</p>	<p>1 2 3 4</p> <p>Approvals &amp; ratings vary with function Single Contact switches use terminals 1 &amp; 2 (&amp; 3)</p> <p><b>8200</b> Single Contact ON - OFF</p>	<p><b>A</b></p> <p>Standard actuator for snap-on custom adaptors</p> <p><b>B</b></p> <p>Flat top actuator</p> <p><b>C</b></p> <p>Curved top actuator</p> <p>Examples of possible actuation methods</p> <p>Using a Snap on adaptor</p> <p>Using a Hinged Actuator</p>	<p><b>A</b></p> <p>Standard body</p> <p>See dimensioned drawings for details</p> <p><b>C</b></p> <p>As standard body but with side support peg for use with M PCB terminals</p> <p>X and V PCB terminals. Additional dummy terminals may be supplied for extra support.</p>
<p><b>H</b></p> <p>4.8 x 0.8 8.5</p> <p><b>A</b></p> <p>7.6 As "H" but right angle 4.8 x 0.8</p>	<p><b>8201</b> Single Contact ON - OFF (momentary ON)</p>	<p><b>C</b></p> <p>2.6 1.5 2.8 x 0.8 8.5</p>	<p><b>C</b></p> <p>As standard body but with side support peg for use with M PCB terminals</p> <p>X and V PCB terminals. Additional dummy terminals may be supplied for extra support.</p>
<p><b>T</b></p> <p>2.6 1.5 7.0 Solder</p> <p><b>V</b></p> <p>3.7 Ctrs 4.3 Dual Plug PCB (Call sales for mounting dims)</p>	<p><b>8250</b> Double Contact ON - OFF</p>	<p><b>C</b></p> <p>2.6 1.5 2.8 x 0.8 8.5</p>	<p><b>C</b></p> <p>As standard body but with side support peg for use with M PCB terminals</p> <p>X and V PCB terminals. Additional dummy terminals may be supplied for extra support.</p>
<p><b>X</b></p> <p>4.5 7.0 PCB 0.8 Sq</p>	<p><b>8251</b> Double Contact ON - OFF (momentary ON)</p>	<p><b>C</b></p> <p>2.6 1.5 2.8 x 0.8 8.5</p>	<p><b>C</b></p> <p>As standard body but with side support peg for use with M PCB terminals</p> <p>X and V PCB terminals. Additional dummy terminals may be supplied for extra support.</p>

## Dimensions

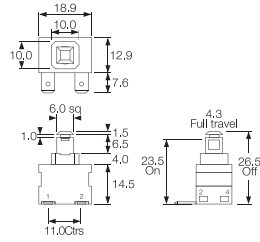
'A' body with 'H' 4.8 terminals



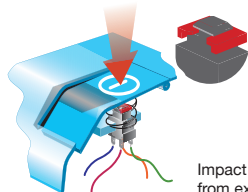
Example of possible mounting styles



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

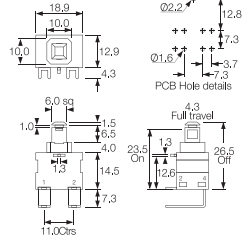


Alternative Actuator



Impact washer resists damage from excessive operator force

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



## Examples



C8250AA ---  
with impact  
washer M1226



X8201AA ---



K8200AA ---



A8200AA ---



M8200AC ---



Example of M8200AC

# 7000 Push Button Range

16A 250Vac



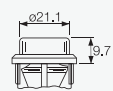

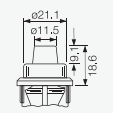
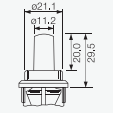
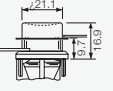


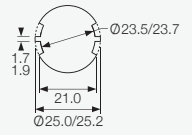
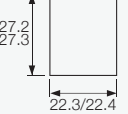


## Key Features

- 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

- CE 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.

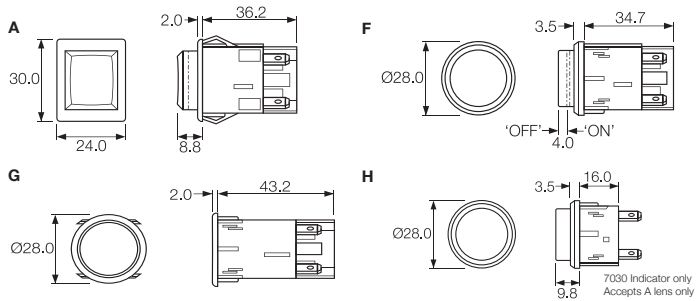
Terminal	Function	Actuator	Body Code
<p><b>C</b></p>  <p>6.3 x 0.8</p> <p><b>H</b></p>  <p>4.8 x 0.8</p>	<p>1 2 3 4 Approvals &amp; ratings vary with function Single Contact switches use terminals 1 &amp; 2 (&amp; 3)</p> <p><b>7000</b> Single Contact ON - OFF</p> <p><b>7001</b> Single Contact (momentary) ON - OFF</p> <p><b>7003</b> Single Contact (with light) ON - OFF</p> <p><b>7004</b> Single Contact (momentary) with light ON - OFF</p> <p><b>7050</b> Double Contact ON - OFF</p> <p><b>7051</b> Double Contact with light ON - OFF</p> <p><b>7053</b> Double Contact with light ON - OFF</p> <p><b>7054</b> Double Contact (momentary ON) with light ON - OFF</p> <p><b>7030</b> Indicator UL E63363 CSA LR29381</p>	<p><b>A</b> Round actuator shown in F body</p>  <p><b>A</b> Round actuator shown in G body</p>  <p><b>B</b> Round actuator - medium shown in F body</p>  <p><b>C</b> Round actuator - long shown in F body</p>  <p><b>D</b> Round actuator - sub panel mount</p>  <p><b>S</b> Rectangular actuator Shown in "A" body N/A for 7030</p> 	<p>Panel cut-outs</p> <p><b>F H G</b></p> <p>Body types fit either cut-out</p>   <p><b>A</b></p>  <p>Cut-outs must be punched in the direction of insertion</p>

## 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	Options
<b>B</b> Black	<b>A</b> Amber	— None			<p><b>Finish</b> Matt finish is standard on bodies. Gloss finish is standard on actuators.</p> <p><b>Colour</b> Call sales for custom colours. A full range is available for large orders.</p> <p><b>Legend printing</b> A wide range is available or call sales for custom legends.</p> <p><b>Lamp voltage</b> Call sales for details of available voltages.</p> <p><b>Weatherproof housing (E)</b> Additional housing which fits round body switches with an oversize housing with a clear silicone cover designed to IP65. Mounting hole dia: 38.0mm</p>
<b>W</b> White	<b>C</b> Clear	<b>2</b> 125V Neon			
	<b>G</b> Green	<b>3</b> 250V Neon			
	<b>R</b> Red	<b>7</b> 12V Filament			
		<b>8</b> 24V Filament			
	UNLIT				
	<b>B</b> Black				
	<b>R</b> Red				
	<b>W</b> White				

# 0911 Push Button Switches

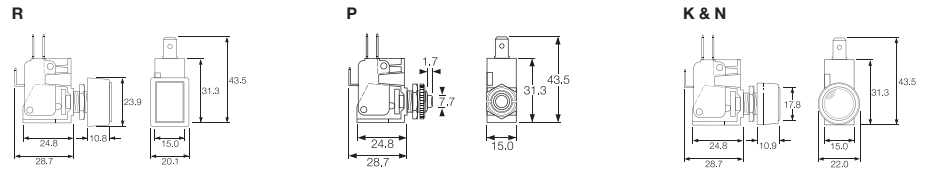
0.5A 250Vac

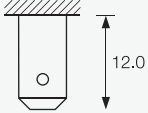

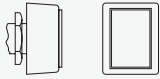
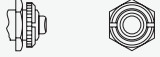


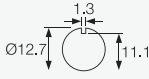


## Key Features

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

## Dimensions



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



### Key Features

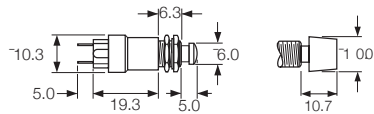
- Self wiping contacts
- Slow make & break
- Momentary action
- Choice of switch circuits
- Choice of actuators

### Approvals and specifications

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

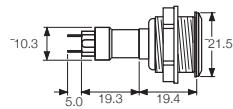
### Dimensions

Dimensions (mm) Nylon S and L actuators

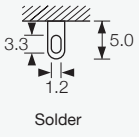






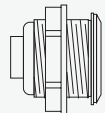





Neck thread - 40 TPI Whit. Actuator travel - 2.5 max

Stainless steel V actuator (IP66)



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

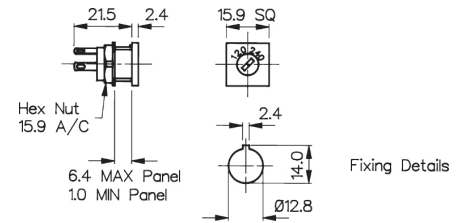
Terminal	Function	Actuator	Body Code	Options
<p><b>T</b></p> 	<p><b>0916</b></p>  <p>Black base SP ON - OFF (momentary)</p>	<p><b>S</b> Small Actuator</p> 	 <p>7.1</p>	<p>Finish</p> <p>Gloss finish for L and S actuators.</p>
	<p><b>0917</b> 50V only</p>  <p>Brown base SP ON - OFF (momentary 1 side)</p>	<p><b>L</b> Large Actuator</p> 	<p>Panel Cut-out (L &amp; S Actuators)</p> <p>Panel thickness Both nuts - 2.5mm No Backnut - 4.0</p>	<p>Colour</p> <p>Call sales for custom colours. A full range is available for large orders.</p>
	<p><b>0918</b></p>  <p>White base SP ON - OFF (momentary OFF)</p>	<p><b>V</b> Vandal Resistant IP66 Flattop Stainless Steel</p> 	 <p>19.2</p>	<p>Panel Cut-out (Stainless Steel V Actuator) Panel thickness - 8.0mm</p>
	<p><b>0919</b></p>  <p>Black base DP ON - OFF (momentary 1 side)</p>			
	<p><b>0920</b></p>  <p>White base DP ON - OFF (momentary ON)</p>			

120/140V Voltage Selector



VS0001

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

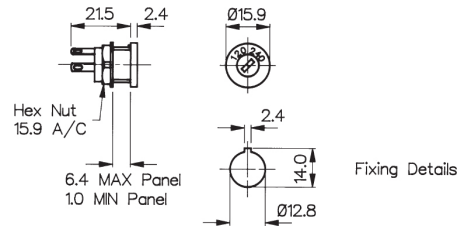


120/240V Voltage Selector

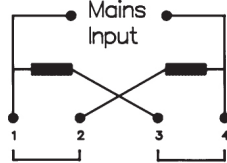


VS0002

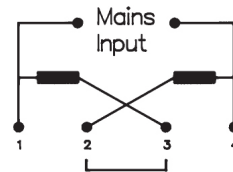
- 2.8 series tabs/Solder tags
- Round Front Bezel
- 6.3A



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
	<b>RoHS</b>	Compliant

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