

Bulgin's range of **high quality rocker switches** includes a huge choice of **single** and **double pole** options available in various sizes, colours, terminations, actuator types and **ratings up to 16A, 250Vac**, 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 pole 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



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

10(6)A 250Vac T100 1E4 (10,000 Operations)
6(2)A 250Vac T100 5E4 (50,000 Operations)
Inrush rating 10/50A 1E4 (10,000 Operations)

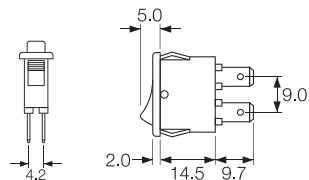
UL CSA 15A 250Vac (Twin unit is 10A 250Vac)
UL CSA 125Vac 1/2hp
UL 100°C, file E45221, CSA file LR10990

3mm contact gap.

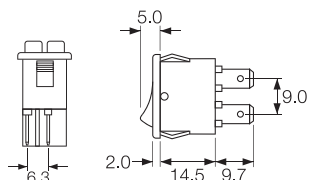
Terminal	Function	Rocker	Body	Body Colour	Rocker Colour
H	 Switches are ON when pressed over terminal 1 8800 ON - OFF Single pole		A. Single pole Panel Cut: 6.2, 6.3, 6.8, 6.9, 17.4, 17.5, X Bezel: 21.0, 9.5 *Optional profile for orientation	B Black R Red W White	B Black R Red W White
T	 Switches are ON when pressed over terminal 1 or 3 8800 ON - OFF Twin pole		B. Single pole - Twin Panel Cut: 9.9, 10.0, 13.4, 13.5, 17.4, 17.5, X Bezel: 21.0, 15.5 *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		
X	 8800 ON - OFF Twin pole		Cut-outs must be punched in the direction of insertion		

Dimensions

8800VA (H terminals shown)



8800V/8800VA (H terminals shown)



Legend	Legend Colour	Options
Blank	Blank	<p>Finish Matt finish only.</p> <p>Colour Call sales for custom colours. A full range is available for large orders.</p> <p>Legend printing Select from the examples or call sales for custom legends.</p>
132	B Black	
	W White	

Examples



☐ X8800VA



☐ X8800VA
☐ T8800VA ---



☐ X8800VA
☐ T8800VA ---



☐ H8800V/H8800VA
☐ T8800V/T8800VA



☐ H8800V/H8800VA
☐ T8800V/T8800VA

8500 Rocker Switches - Miniature

10A 250Vac Single & Double Pole



Key Features

- Miniature rocker switch
- Ratings up to 15A, 250Vac
- Single & double pole 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

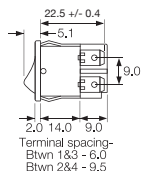
- 10(6)A 250Vac T125 IE4 (non lit types)
6(4)A 250Vac T125 5E4 (50,000 Operations)
10(6)A 250Vac T100 (lit types)
- UL CSA 15A Non Ind 250Vac, 14A Ind 250Vac, 10A 277Vac
UL CSA 250Vac 1/2hp, 125Vac 1/4hp
UL 105°C, (non lit) file E45221, CSA file LR10990

3mm contact gap.

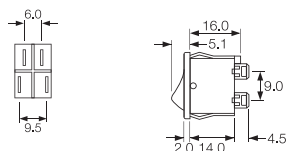
Terminal	Function	Rocker	Body	Body Colour	Rocker Colour								
<p>H</p> <p>4.8 x 0.8 8.5</p>	<p>ON OFF Switches are ON when pressed over terminal 1</p>	<p>H Slotted for custom caps</p> <p>Slots for snap-in buttons</p>	<p>B Standard body with terminal barrier</p> <p>Panel cut out: 12.9 x X Bezel: 15.0 x 21.0</p>	<p>B Black</p>	<p>Un-Lit B Black</p>								
<p>K</p> <p>2.6 x 0.8 8.5</p>	<p>8500</p> <p>ON - OFF Single pole (Uses terminals 1a & 2a)</p>	<p>R Semi-rotary (not lit)</p>	<p>BC Body without terminal barrier</p> <p>Panel cut out: 12.9 x X Bezel: 15.0 x 21.0</p> <p>Dimensions for snap-in fixing</p> <table border="1"> <thead> <tr> <th>Panel thickness</th> <th>Dim X</th> </tr> </thead> <tbody> <tr> <td>0.75-1.25</td> <td>19.1/19.2</td> </tr> <tr> <td>1.25-2.00</td> <td>19.3/19.4</td> </tr> <tr> <td>2.00-3.00</td> <td>19.7/19.8</td> </tr> </tbody> </table> <p>Cut-outs must be punched in the direction of insertion</p>	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	<p>R Red</p>	<p>R Red</p> <p>W White</p>
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												
<p>L</p> <p>2.6 x 0.8 3.2</p> <p>Right angle version of K terminal available on 8500 only</p>	<p>8503</p> <p>ON (lit) - OFF Single pole</p>	<p>D Paddle lever (not lit)</p>	<p>W White</p>	<p>Lit A Amber</p>									
<p>R</p> <p>4.8 x 0.8 4.5</p>	<p>8550</p> <p>ON - OFF Double pole</p>	<p>V Curved (not lit)</p>	<p>W White</p>	<p>G Green</p> <p>C Clear</p>									
<p>T</p> <p>3.5 x 0.8 8.5 +/- 0.4</p> <p>Solder</p>	<p>8580</p> <p>Available with H terminals only</p> <p>Indicator</p> <p>UL/CSA E83363</p>	<p>V Curved (lit)</p>	<p>R Red</p>	<p>R Red</p>									
		<p>X Two colour (not lit)</p>											
		<p>A Softline lens</p>											
		<p>P Push button operation (8500 only) See drawing opposite</p>											

Dimensions

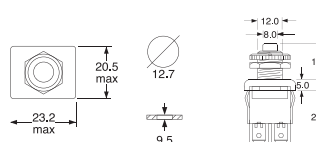
“B” body with barrier for H, T and K terminals




“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	Lamp Voltage	Legend	Legend Colour	Options
X Rocker Only	Blank	Blank	Blank	<p>Finish Matt finish only.</p> <p>Colour Call sales for custom colours. A full range is available for large orders.</p> <p>Legend printing Select from the examples or call sales for custom legends.</p> <p>Lamp voltage Call sales for details of available voltages.</p> <p>Protective cover L167 Snaps on to bodies with V or X style rockers and A lens. This reduces panel thickness by 0.8mm.</p> 
R Red	2 125V Neon	076	B Black	
W White	3 250V Neon		W White	
Blank Leave blank for other Rocker types	7 12V Filament			
	8 24V Filament			

Examples



H8500VB ---
T8500VB ---



H8550VB ---
T8550VB ---



H8550HB ---
T8550HB ---



H8550XB ---
T8550XB ---



H8550RB Semi-rotary
A splash proofing option



H8500PO ---
Pushbutton option



H8553VB ---
T8553VB ---



H8580AB ---

8600 Rocker Switches - Miniature

10A 250Vac Single & Double Pole



Key Features

- Miniature rocker switch
- Ratings up to 16A, 250Vac
- Single & double pole
- 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

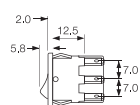
Approvals and specifications

- 10(4)A 250Vac T90 (unless noted below)
- UL CSA See ratings below
UL 65°C, file E45221, CSA file LR10990
- 3mm contact gap except where marked μ .

Terminal	Function	UL 15 UL 508	Rocker	Body	Body Colour	
<p>H</p> <p>4.8 x 0.8 7.4</p> <p>T</p> <p>Ø2.2 6.4 3.5 x 0.8 Solder</p> <p>X</p> <p>3.7 5.3 PCB 0.65sq</p> <p>Double Pole switches with "X" terminals are supplied without terminal barriers</p>	<p>Approvals & ratings vary with function</p> <p>8600</p> <p>10(4)A 16A 250V, 10A 277V 1/2HP 277V, 1/4HP 125V ON - OFF</p> <p>8601</p> <p>6(1)A 16A 250V, 6A 277V ON - OFF (momentary ON)</p> <p>8602</p> <p>10A 6A 277V ON - OFF (momentary OFF)</p>	<p>ON OFF Switches are ON when pressed over terminal 3</p> <p>8650</p> <p>10(4)A 10A 277V 1/2HP 277V, 1/4HP 125V ON - OFF</p> <p>8651</p> <p>6(1)A 6A 277V ON - OFF (momentary ON)</p> <p>8652</p> <p>10(4)A 6A 277V ON - OFF (momentary OFF)</p>	<p>V Curved</p> <p>V Curved (lit)</p> <p>F Flat Indicator only (Single pole)</p>	<p>B Single pole</p> <p>Panel cut out</p> <p>Bezel</p> <p>Single Pole dimensions for snap-in fixing</p> <p>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</p> <p>B (Double Pole) with terminal barrier</p> <p>BC (Double Pole) w/o terminal barrier</p> <p>Panel cut out</p> <p>Bezel</p> <p>Double Pole dimensions for snap-in fixing</p> <p>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</p> <p>Cut-outs must be punched in the direction of insertion</p>	<p>B Black</p> <p>R Red</p> <p>W White</p>	
	<p>N/A</p> <p>ON - OFF Lit</p> <p>8610</p> <p>6(1)A 10A 277V 1/2HP 277V, 1/4HP 125V ON - ON</p> <p>8611</p> <p>6A 277V ON - ON (momentary 1 side)</p> <p>8620 μ</p> <p>ON - OFF - ON</p>	<p>8653</p> <p>10(4)A 6A 277V ON - OFF Lit</p> <p>8655</p> <p>10(4)A 6A 277V ON - OFF (momentary OFF)</p> <p>8660</p> <p>6(1)A 10A 277V 1/2HP 277V, 1/4HP 125V ON - ON</p> <p>8661</p> <p>6A 277V ON - ON (momentary 1 side)</p> <p>8670 μ</p> <p>ON - OFF - ON</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>
	<p>8630</p> <p>6(1)A UL E63363 CSA LR29381 KEMA-KUER</p> <p>Indicators</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>

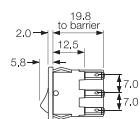
Dimensions

Single pole




Terminals shown are "H" 4.8 push on type

Double pole



Terminal spacing 10.2 between pole centres

Rocker Colour	Lamp Voltage	Legend	Legend Colour	Options
Un-Lit B Black	Blank	Blank	Blank	<p>Finish Matt finish only.</p> <p>Colour Call sales for custom colours. A full range is available for large orders.</p> <p>Legend printing Select from the examples or call sales for custom legend.</p> <p>Lamp voltage Call sales for details of available voltages.</p> <p>Blanking plate A8634FB Dummy unit to fill unused panel holes. Single pole size only.</p> <p>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.</p>  <p>Single Pole options Most switches shown can have single pole switching in double pole bodies.</p>
R Red	2 125V Neon	076	B Black	
W White				
Lit A Amber	3 250V Neon		W White	
G Green				
C Clear	7 12V Filament			
R Red	8 24V Filament			

Examples



H8600VB ---
T8600VB ---



H8600VB ---
T8600VB ---



H8630FB ---
T8630FB ---



H8650VB ---
T8650VB ---



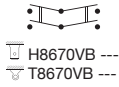
H8660VB ---
T8660VB ---



H8653VB ---
T8653VB ---

8620 & 8670 Rocker Switches

3 Positions - 10A 250Vac



Key Features

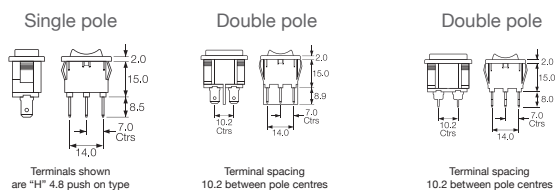
- 3 position miniature rocker switch
- Ratings up to 15A, 250Vac
- Single & double pole
- Centre off switching
- Push on, solder and PCB terminals
- Matching indicators
- Panel cut out: single: 19.3 x 12.9 double: 19.3 x 21.9


Approvals and specifications

- UL 10(4)A 250Vac T90
- UL CSA 15A 277Vac (Single pole)
- UL CSA 250Vac 1/2hp (Single pole)
- UL CSA 125Vac 1/4hp (Single pole)
- UL CSA 10A 277Vac (Double pole)
- UL CSA 277Vac 1/2hp (Single & Double pole)
- UL 90°C, file E45221, CSA file LR10990
- μ contact gap.

Terminal	Function	Rocker	Body	Body Colour	Rocker Colour
<p>H</p> <p>4.8 x 0.8</p>	<p>8620</p> <p>ON - OFF - ON Single pole</p>	<p>V</p> <p>Curved</p>	<p>B Single pole</p> <p>Panel thickness 0.75-1.24 1.25-1.99 2.00-3.00</p> <p>Dim X 19.1/19.2 19.3/19.4 19.7/19.8</p>	<p>B Black</p> <p>R Red</p> <p>W White</p>	<p>Lit (DP)</p> <p>A Amber</p> <p>C Clear</p> <p>G Green</p> <p>R Red</p> <p>Lit (DP)</p> <p>B Black</p> <p>R Red</p> <p>W White</p>
<p>T</p> <p>Ø2.15 Solder</p>	<p>8670</p> <p>ON - OFF - ON Double pole</p>	<p>H</p> <p>Slotted for actuator (8620 only)</p>	<p>B Single pole - Twin</p> <p>Panel thickness 0.75-1.24 1.25-1.99 2.00-3.00</p> <p>Dim X 19.1/19.2 19.3/19.4 19.7/19.8</p> <p><small>Cut-outs must be punched in the direction of insertion</small></p>		
<p>X</p> <p>PCB 0.8sq Double pole switches with X terminals are supplied without terminal barriers</p>					

Dimensions



Lamp Voltage	Legend	Legend Colour	Options
Blank	Blank	Blank	<p>Finish Matt finish only.</p> <p>Colour Call sales for custom colours. A full range is available for large orders.</p> <p>Legend printing Select from the examples or call sales for custom legend.</p> <p>Lamp voltage Call sales for details of available voltages.</p> <p>Blanking plate A8634FB Dummy unit to fill unused panel holes. Single pole size only.</p> <p>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.</p>  <p>Single Pole options Most switches shown can have single pole switching in double pole bodies.</p>
2 125V Neon	076	B Black	
3 250V Neon		W White	
7 12V Filament			
8 24V Filament			

1250 Rocker Switches

10A 250Vac



Key Features

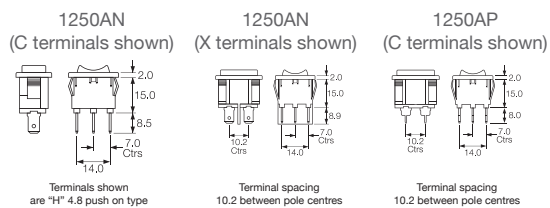
- Standard rocker switch
- Double pole in single pole body
- Snap in or sub panel mount
- Integral terminal barrier
- Push on or PCB terminals
- Panel cut out: 27.2 x 12.4 (snap in) 26.3 x 12.4 (sub panel mount)

Terminal	Function	Rocker	Body	Body Colour	Rocker Colour
<p>C</p> <p>On when pressed over terminal 1</p> <p>1250</p> <p>ON - OFF Double pole</p> <p>Poles are 9.0mm between centres.</p> <p>6.3 x 0.8</p> <p>On when pressed over terminal 1</p> <p>1250SP</p> <p>ON - OFF Single pole</p> <p>PCB 0.8sq (N body only)</p>	<p>A Curved</p> <p>Shown in N body</p>	<p>N</p> <p>Panel cut-out</p> <p>Sub-panel: 26.1/26.2, 12.4/12.5</p> <p>Facia: 23.8 nom, 13.1 nom, R3.5</p> <p>Bezel: 13.0, 29.5</p> <p>Panel thickness: 0.75-1.24, 1.25-1.99, 2.00-3.00</p> <p>Dim X: 26.1/26.2, 26.3/26.4, 26.7/26.8</p>	<p>B Black</p> <p>W White</p>	<p>B Black</p> <p>W White</p> <p>G Grey</p>	
<p>X</p> <p>On when pressed over terminal 1</p> <p>1250SP</p> <p>ON - OFF Single pole</p> <p>PCB 0.8sq (N body only)</p>	<p>A Curved</p> <p>Shown in P body</p>	<p>P</p> <p>Panel cut-out</p> <p>Panel cut-out: 27.2/27.3, 12.4/12.5</p> <p>Bezel: 29.5, 15.0</p> <p>Panel thickness: 0.75-3.00</p> <p><small>Cut-outs must be punched in the direction of insertion</small></p>	<p>B Black</p> <p>W White</p>	<p>G Grey</p>	

Approvals and specifications

-  10(6)A 250Vac T100
 6A 400Vac T100
 1A 30Vdc
-  UL CSA 10A 250Vac
 UL CSA 16A 250Vac Resistive
 UL CSA 125Vac 1/2hp
 UL CSA 1A 30Vdc
 UL 100°C, file E45221, CSA file LR10990
- 3mm contact gap

Dimensions



Legend	Legend Colour	Options
— Blank	— Blank	<p>Finish Matt finish only.</p> <p>Colour Call sales for custom colours. A full range is available for large orders.</p> <p>Legend printing Select from the examples or call sales for custom legend.</p>
085	B Black	
	W White	

6000 SP Splash Resistant Rocker Switches

16A 250Vac



Key Features

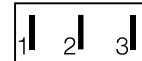
- Ratings up to 20A, 277Vac
- Positive switch action
- Distinctive styling
- Illuminated & nonilluminated
- Single pole
- Panel cut out: 30.1 x 11.1mm

Approvals and specifications

- European 16(4)A 250Vac T125, 10A 400Vac T125
 - UL = 20A 277Vac, 1 1/2HP 250Vac 1HP 125Vac
CSA = 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.



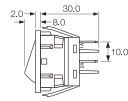
Terminal	Function	Rocker	Body	Body Colour	Rocker Colour	Lamp Voltage
C 6.3 x 0.8 9.7	6000 ON - OFF	A Softline Matt 	L Panel cut-out ** Bezel 30.0/30.1 11.0/11.1 31.5 14.0 R2.0 Cut-outs must be punched in the direction of insertion	B Black W White	Lit (DP) A Amber	Blank
	6001 ON - OFF (momentary ON)				C Clear 2 125V Neon	
H 4.8 x 0.8 9.7	6002 ON - OFF (momentary OFF)	A Softline Matt 	L Panel cut-out ** Bezel 30.0/30.1 11.0/11.1 31.5 14.0 R2.0 Cut-outs must be punched in the direction of insertion	B Black W White	G Green 3 250V Neon	2 125V Neon
	6003 ON - OFF Lit	R Red 5 12Vdc LED (P Rocker)				
S 4.8 x 0.8 9.7 Screw & Clamp N/A for assemblies with 3 terminals	6008 ON - OFF Lit (Unswitched neutral)	P Lit window Matt 	L Panel cut-out ** Bezel 30.0/30.1 11.0/11.1 31.5 14.0 R2.0 Cut-outs must be punched in the direction of insertion	B Black W White	Lit (DP) B Black 6 24Vdc LED (P Rocker)	5 12Vdc LED (P Rocker)
	6009 ON - OFF (momentary ON) Lit (Unswitched neutral)	R Red 7 12V Filament				
	6010 ON - ON	8 24Vdc Filament				
	6011 ON - ON (momentary 1 side)					

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
** For cut-out details on momentary switches call sales

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

Examples



☐ C6000AL - - -



☐ C6000AL - - -



☐ C6010AL - - -



☐ C6003AL - - -



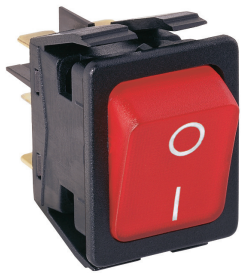
☐ C6003PL - - -



☐ C6030AL - - -

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 pole
- DC LED Illumination Available
- Panel cut out: 30.1 x 22.2mm

Approvals and specifications

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

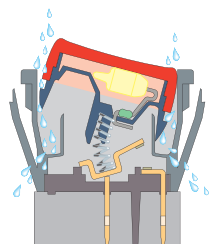
UL CSA (except 6054 & 6055 Switches)
20A 277Vac, 250Vac 11/2hp, 125Vac 1hp

UL 100°C, file E45221, CSA file LR10990

3mm contact gap with Positive Break switching.

Terminal	Function	Rocker	Body	Body Colour										
<p>C</p> <p>6.3 x 0.8</p>	<p>6050</p> <p>ON - OFF</p>	<p>A</p> <p>Softline Matt</p>	<p>L</p> <p>Double Pole</p> <p>Panel cut-out ** Bezel</p>	<p>Lit (DP)</p> <p>A Amber</p> <p>C Clear</p>										
	<p>6051</p> <p>ON - OFF (momentary ON)</p>				<p>6059</p> <p>ON - OFF (Single pole) (momentary ON) Isolated light</p>	<p>L</p> <p>Twin units</p> <p>Contact sales for information on splash resistance and IP ratings</p>	<p>G Green</p> <p>R Red</p>							
	<p>6052</p> <p>ON - OFF (momentary OFF)</p>				<p>A</p> <p>Softline Matt</p>			<p>P</p> <p>Lit window Matt</p>	<p>Un-Lit (DP)</p>					
	<p>6053</p> <p>ON - OFF Lit</p>				<p>S</p> <p>4.8 x 0.8</p>					<p>Lit window</p>	<p>B Black</p> <p>R Red</p>			
	<p>6054</p> <p>ON - OFF (momentary ON) Lit</p>				<p>Screw & Clamp N/A for assemblies with 3 terminals</p>							<p>W White</p>		
	<p>6055</p> <p>ON - OFF (Single pole) (momentary ON) Lit</p>												<p>6056</p> <p>ON - OFF (Single pole) Isolated light</p>	
	<p>6057</p> <p>ON - OFF Isolated light</p>													<p>6058</p> <p>ON - OFF (Single pole) Lit</p>

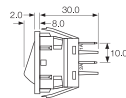
Integral Splash Resistance



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

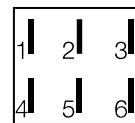
L 0.75 to 2.5mm

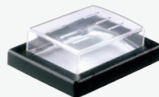
** For cut-out details on momentary switches call sales

Terminal spacing - Poles 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	<p>G74 Protective Cover</p> <p>Finish Matt is standard.</p> <p>Colour Call sales for custom colours. A full range is available for large orders.</p> <p>Legend printing Select from the examples or call sales for custom legends.</p> <p>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.</p>  <p>Panel sealing washer W42 is available. This reduces panel thickness by 1.00mm. Covers are not suitable for momentary types.</p> <p>IP Ratings Call the sales for details.</p> <p>Terminal Link P1067 connects the poles of a double pole switch or twin unit.</p> <p># Mounting orientation may affect IP rating.</p>
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			

Examples



C6050AL - - -



C6053AL - - -



C6053PL - - -



C6000A/C6000AL



C6003P/C6003PL



C6003P/C6030AL

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 pole
- Splash resistant option
- DC LED Illumination Available for "P" Rocker
- Panel cut out 'A' style: 27.3 x 12.3mm

Approvals and specifications

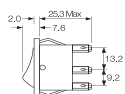
- UL 1500 Series 16(4)A 250Vac T125
- UL CSA 16A Non Ind 250Vac, (2 posn) 250Vac 1hp, 125Vac 1/2hp, (3 posn) 250Vac 1/2hp, 125Vac 1/4hp
1330 36Vdc 14A
1350 72 Vdc 7A
1500 & 1510 14 Vdc 10A
UL 85°C, file E45221, CSA file LR10990

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

1300 series 16(6)A 250Vac T125 5E4 (50,000 Ops.)
150A Inrush to EN61058-1

Terminal	Function	Rocker	Body	Finish	Body Colour	Rocker Colour
C 	Standard 1500 ON - OFF	A 	Panel cut-out Cut-outs must be punched in the direction of insertion A 	M Matt	B Black	Un-Lit
H 	1501 HP rating N/A ON - OFF (momentary ON)	B 	B 	G Gloss	R Red	B Black
K 	1502 HP rating N/A ON - OFF (momentary OFF)	H 	L 	Applies to both Rocker & Body	W White	R Red
T 	1510 µ HP rating N/A ON - ON	V 	Q 		A Amber	
U 	1511 µ HP rating N/A ON - ON (momentary 1 side)	W 	R 	C Clear		
X 	1520 µ 125V & 250V 1/2 HP H terminal rated T100 only ON - OFF - ON	X 	T 	G Green		
	1521 µ HP rating N/A H terminal rated T100 only ON - OFF - ON (momentary 1 side)	F 		A Amber		
	1522 µ HP rating N/A H terminal rated T100 only ON - OFF - ON (momentary 2 sides)	A 		R Red		
	0430 HP rating N/A H terminal rated T100 only ON - OFF					

Dimensions



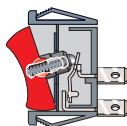
Panel thickness
 A, Q 0.75 to 3.3mm
 L, B, T 0.75 to 2.5mm
 R 0.75 to 3.0mm

* For cut-out details on momentary switches call sales

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.

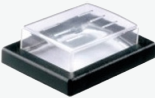
UL CSA 20A 250Vac 1hp, 125Vac 1/2hp
 UL 85°C, file E45221, CSA file LR10990

In house test:

20A 24Vdc — Indicative rating only

BioCote antimicrobial additive. Independently verified to ISO22196:2007.

3mm contact gap except if marked μ .

Lamp Voltage	Insert Colour	Legend	Legend Colour	Options
Blank	Blank	Blank	Blank	<p>Finish Matt is standard.</p> <p>Colour Call sales for custom colours. A full range is available for large orders.</p> <p>Legend printing Select from the examples or call sales for custom legends.</p> <p>Lamp voltage Call sales for details.</p> <p>Blanking plates A0434 - - Dummy units to fill unused panel holes.</p> <p>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.</p>  <p>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.</p> <p>For all options call sales.</p>
2 125V Neon	R Red	602A	B Black	
3 250V Neon	W White		W White	
7 12V Filament				
8 24Vdc Filament				

Examples



C1500AR ---
 T1500AR ---



C1500AL ---
 T1500AL ---



C1500XL ---
 T1500XL ---



C1510AL ---
 T1510AL ---



C1520AL ---
 T1520AL ---



C0430AL ---
 T0430AL ---

5500 Lit Rocker Series

10A 250Vac



Key Features

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

Approvals and specifications

16(4)A 250Vac T85
10(3)A 250Vac T100, (12A 250Vac T125 for P rocker only)

UL CSA 15A 250Vac, CSA 16A Non Ind 250Vac
UL CSA 250Vac 1hp, 125Vac 1/2hp
UL 85°C, file E45221, CSA file LR10990

μ contact gap.

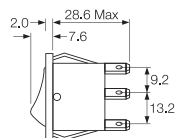
For Twin units repeat the order details for both the left and right sides.

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

Dimensions

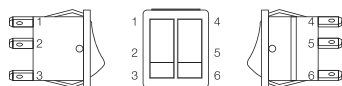
Panel thickness

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




Twin units

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



Terminal spacing -
Poles 10.8 between centres (twin units)

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	Legend	Legend Colour	Options
Blank	Blank	Blank	<p>Finish Matt is standard.</p> <p>Colour Call factory for custom colours. A full range is available for large orders.</p> <p>Legend printing Select from the examples or call factory for custom legends.</p> <p>Lamp voltage Call factory for details.</p> <p>Blanking plate A0434 - - (SP) A0494 - - (DP) Dummy units to fill unused panel holes.</p> <p>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.</p>  <p>Panel sealing washers W46 (Single Pole) and W42 (Double Pole) are available for these body types, this reduces panel thickness by 2mm.</p> <p>For all options call the factory.</p>
2 125V Neon	602A	B Black	
3 250V Neon		W White	
5 12Vdc LED (P Rocker) IF = 20-30mA			
6 24Vdc LED (P Rocker) IF = 20-30mA			
7 12V Filament			
8 24Vdc Filament			

Examples



C5503AL - - -



C5500AL - - -



C5503PL - - -



C5503A/C5430AL



C5503A/C5503AL



C5503P/C5503PL

1500 Twin Units Switches and Indicators

16A 250Vac



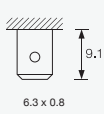




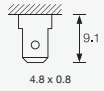


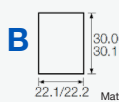
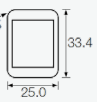
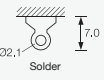



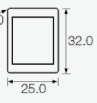
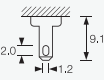


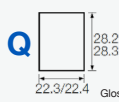
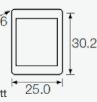
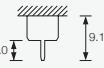

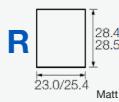
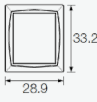

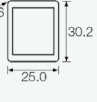
Key Features

- 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 pole switches
- Splash resistant option
- Panel cut out 'A' style: 27.2 x 22.3mm

Approvals and Specifications

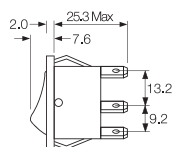
- 16(4)A 250Vac T125
- UL CSA 16A 250Vac
- UL CSA (2 posn) 250Vac 1hp, 125Vac
- 1/2hp, (3 posn) 250 Vac
- 1/2hp, 125Vac 1/4hp
- UL 85°C, file E45221, CSA file LR10990

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	Approvals & ratings vary with function ON OFF Switches - ON when pressed over terminal 1 or 4 	A Softline (Matt only) 	Panel Cut - outs Bezel A  27.2/27.3 22.3/22.4 Gloss or Matt B  30.2 25.0	M Matt	B Black	Un-Lit B Black
H  4.8 x 0.8	1500  ON - OFF	B Softline (Matt only) 	B  30.0 30.1 22.1/22.2 Matt only B  33.4 25.0 R3.5	G Gloss	W White	R Red
T  02.1 Solder	1510 μ  ON - ON	W Softline (Matt only) 	L  30.0 30.1 22.1/22.2 Matt only L  32.0 25.0 R1.0	Applies to both Rocker & Body	W White	W White
K  2.0 x 1.2	0430  Indicator	X Softline (Matt only) 	Q  28.2 28.3 22.3/22.4 Gloss or matt Q  30.2 25.0 R1.6			A Amber
X  4.0		A Softline (Matt only) 	R  28.4 28.5 23.0/25.4 Matt only R  33.2 28.9			C Clear
			T  28.2 28.3 22.3/22.4 Matt only T  30.2 25.0 R1.6			G Green
						R Red

Dimensions

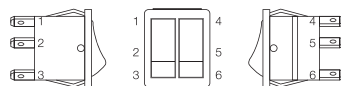
Panel thickness
A,Q 0.75 to 3.3mm
L,B,T 0.75 to 2.5mm
R 0.75 to 3.0mm



Call sales for terminal spacing details

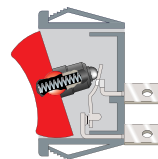
Twin units

Two single switches or a switch and an indicator light can be assembled side by side in one double pole 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	<p>Finish Matt is standard.</p> <p>Colour Call factory for custom colours. A full range is available for large orders.</p> <p>Legend printing Select from the examples or call factory for custom legends.</p> <p>Lamp voltage Call factory for details.</p>
R Red	2 125V Neon	602A	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			

Examples



☐ C1500A/C1500AL



☐ C1500A/C0430AL



☐ C1500X/C1500XL



☐ C1520A/C1510AL



☐ C1500A/C1520AL



☐ C0430A/C0430AL

1550 Standard and 1350 High Inrush

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 pole
- Splash resistant option
- Panel cut out 'A' style: 27.2 x 22.3mm

Approvals and specifications

1550 Series 16(4)A 250Vac T125

UL CSA 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, file E45221, CSA file LR10990.

In house test:

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

1350 series 16(4)A 250Vac T85 1E4 (10,000 Ops.)
1330 series 16(6)A 250Vac T125 5E4 (50,000 Ops.)
150A Inrush to EN61058-1.

Terminal	Function		Rocker	Body
C 6.3 x 0.8	Standard 1550 ON - OFF	0480 X terminal N/A ON - OFF	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)	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
	1551 HP rating N/A ON - OFF (momentary ON)	High Inrush 1350 Not W, X or B rocker ON - OFF		
H 4.8 x 0.8*	1552 HP rating N/A ON - OFF (momentary OFF)	1353 Not W, X or B rocker ON - OFF Lit	R Round F Flat Lens Gloss (0480) A Softline lens Matt (0480 only) as F but with raised profile 	
	1553 Not W, X or B rocker ON - OFF Lit			
K 2.8 x 0.8*	1560 μ ON - ON			
	1561 μ HP rating N/A ON - ON (Momentary 1 Side)			
T Ø2.1 Solder	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		
U Ø2.1 Right angle "T" solder terminal	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)			
X Ø2.1 PCB 0.8Sq*				

Approvals and specifications (continued)

UL CSA 20A 250Vac 1hp, 125Vac 1/2hp.
 UL 72Vdc 7A, 36Vdc 14A.
 UL 85°C, file E45221, CSA file LR10990.

In house test:

20A 24Vdc—Indicative rating only

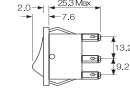
3mm contact gap except if marked μ .

Splash Resistance



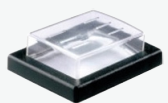
1300 High inrush, positive break switching
 The 1300 series mechanism ensures contact welds formed at switch-on are positively separated by the plunger tube acting directly on the step in the moving contact.

Dimensions



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

* For cut-out details on momentary switches call sales

Finish	Body Colour	Rocker Colour	Insert Colour	Lamp Voltage	Legend	Legend Colour	Options
M Matt	B Black	Un-Lit B Black	Blank	Blank	Blank	Blank	<p>Finish Matt is standard.</p> <p>Colour Call sales for custom colours. A full range is available for large orders.</p> <p>Legend printing Select from the examples or call sales for custom legends.</p> <p>Lamp voltage Call sales for details.</p> <p>Blanking plates A0494 Dummy units to fill unused panel holes.</p> <p>Protective cover Snaps on to A, L, Q or T bodies (add G after body in cat no). This reduces panel thickness by 1mm.</p>  <p>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.</p> <p>For all options call sales.</p>
G Gloss	W White	R Red	R Red	2 125V Neon	602A	B Black	
<small>Applies to both Rocker & Body</small>		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 ---

1550 Standard & 1350 High Inrush Switches

150A to EN61058-1 and 16A 250Vac/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 pole
- 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
- UL CSA 16A 250Vac, (2 posn) 250Vac 1hp, 125Vac 1/2hp, (3 posn) 250 Vac 1/2hp, 125Vac 1/4hp. UL 85°C, file E45221, CSA file LR10990.
- In house test:**
10A 24Vdc— Indicative rating only
- 1350 Series
- UL CSA 20A 250Vac 1hp, 125Vac 1/2hp. UL 72Vdc 7A, 36Vdc 14A, UL 85°C, file E45221, CSA file LR10990.

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

Splash Resistance

In house test:

20A 24Vdc— Indicative rating only

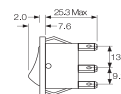
3mm contact gap except if marked μ .



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 - Poles 10.2 between centres

* For cut-out details on momentary switches call sales

Insert Colour	Lamp Voltage	Legend	Legend Colour	Options
Blank	Blank	Blank	Blank	<p>Finish Matt is standard.</p> <p>Colour Call sales for custom colours. A full range is available for large orders.</p> <p>Legend printing Select from the examples or call sales for custom legends.</p> <p>Lamp voltage Call sales for details.</p>
R Red	2 125V Neon	602A	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			

Examples



C1553AH - - -



C1550AH - - -

R13 Round Rocker Switches

10A 250Vac



Key Features

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

Approvals and specifications

- ⚡ SP 10(4)A 250Vac T85 1E4
- ⚡ DP 10(4)A 250Vac T85 1E4
- UL CSA SP 16A 125Vac & 10A 250Vac
UL CSA DP 16A 125Vac, 10A 250Vac, 10A 28Vdc
UL 85°C, file E67774(S), CSA file LR45128

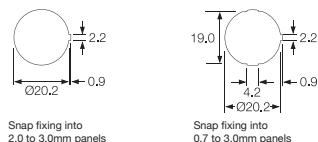
RoHS compliant

Single pole has μ contact gap.

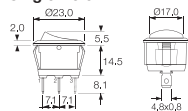
Special products

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

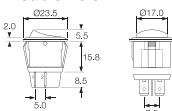
Dimensions



Single Pole



Double Pole



Protective cover L188



Examples



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


Product details





 SP ON - OFF μ
Cat no.
R13 112A AAA



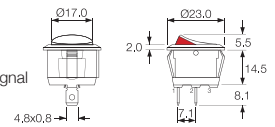


 SP ON - OFF μ
 Lit 230V
Cat no.
R13 112B NAC






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





 SP ON - OFF μ
Cat no.
R13 112A AAB



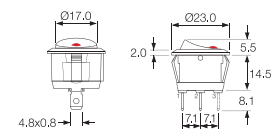



 SP ON - ON μ
Cat no.
R13 112C AAA






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





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



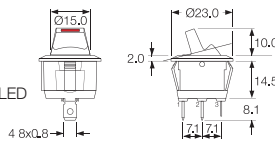


 SP ON - OFF - ON μ
Cat no.
R13 112D AAA





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






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

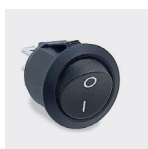
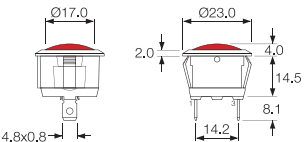


SP ON - OFF μ
 (Momentary ON)
Cat no.
R13 208F AAA*





 Indicator light
Cat no.
R9 92B ---





 DP ON - OFF
Cat no.
R13 244A AAA



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

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Rocker Switches](#) category:

Click to view products by [Bulgin](#) manufacturer:

Other Similar products are found below :

[LTILA6E-1S-WH-RC-FN12VXCR1](#) [6-1571986-9](#) [8007K26N324V52](#) [8055K23Z7V](#) [8055K32Z7V](#) [8055K52Z7V](#) [8138K20E6M50](#) [84206L](#)
[84312LX](#) [PREDD5-07F-BB0GW](#) [999-16716-002](#) [999-16716-003](#) [999-16716-004](#) [A101J1V3Q004](#) [A101J2ZQ004](#) [A101J4ZQ004](#)
[A101J51CB0004](#) [A103J1ZQ004](#) [A201J1AQ004](#) [A201J3ZB004](#) [A201J50ZQ004](#) [A203J51ZQ0004](#) [A435S1YZQ](#) [H8500XBBBBL-A](#)
[H8653VBBG2577W](#) [HB130CHNWWNAAC](#) [R13112ABB-602W](#) [1251.0303](#) [AE205J60V3B004](#) [1352.0107](#) [1571099-3](#) [1571987-4](#)
[1571987-5](#) [1571989-7](#) [1571988-5](#) [B123J77V7B2](#) [B226J50W4Q22P](#) [B433J37ZQ22M](#) [160212E](#) [1634200-7](#) [1801.1164](#) [1839.1502](#) [PANEL-](#)
[PLUG-VHP-BLACK](#) [PANEL-PLUG-VHP-WT](#) [K1ABBSCADN](#) [KG312A2DXD246X](#) [250011E714](#) [2600HM11E](#) [2600R21E](#) [260413E](#)