



E-SWITCH®



SELECTION. SERVICE. SPEED. >>>

PRODUCT MATRIX

TABLE OF CONTENTS

DO YOU NEED A SWITCH?

Questions To Ask When Specifying A Switch3-5

PRODUCT MATRIX

	Anti-vandal Switch Series Comparison6-9
	Pushbutton Switch Series Comparison10-17
	Subminiature Pushbuttons.....10
	PCB Mount Pushbuttons.....12-13
	Panel Mount Pushbuttons14-17
	Tactile Switch Series Comparison18-23
	Snap Action Switch Series Comparison24-25
	Rocker Switch Series Comparison26-31
	Subminiature Rockers27
	Rectangular Panel Mount Rockers28-29
	Oval / Round Panel Mount Rockers30-31
	Toggle Switch Series Comparison32-33
	Slide Switch Series Comparison34-35
	DIP Switch Series Comparison36-37
	Glossary / IP Rating Chart38
	Recommended Soldering Guidelines39



Do You Need A Switch?

E-Switch has prepared a 7-step process to help guide users to determine the type of switch best suited to their needs.

1

WHAT TYPE OF SWITCH ARE YOU LOOKING FOR?

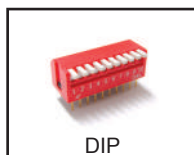
The switch categories below show the different types to choose from.



Anti-vandal



Detector



DIP



Keylock



Navigation



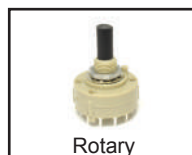
Pushbutton



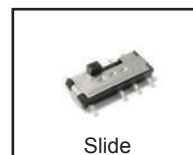
Push-pull



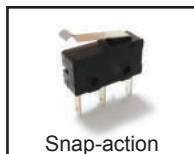
Rocker



Rotary



Slide



Snap-action



Tactile



Tilt



Toggle



Trigger

2

WHAT ELECTRICAL RATINGS ARE NEEDED?

1. Is the product AC or DC?
 - Common Voltages for AC: 125VAC, 250VAC
 - Common Voltages for DC: 3, 6, 12, 24 and 48VDC
2. How many amperes does the switch need to handle?
 - Low Power is in the milliamps
 - Medium Power is from 2 amps to 5 amps
 - High Power is greater than 6 amps
3. If you're looking at medium to high power, what agency approvals are needed?
 - Where the product is sold determines what approvals are needed.



(cULus)
North American Agency



(ENEC)
European Agency



(VDE)
German Agency



(TUV)
Worldwide Agency



E-SWITCH®

www.e-switch.com

800.867.2717

3

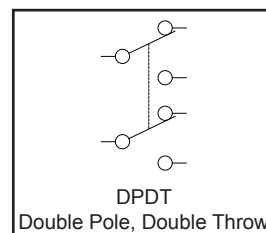
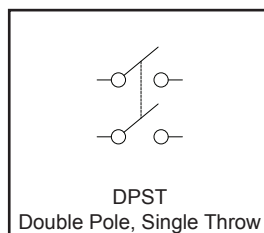
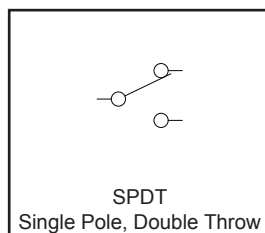
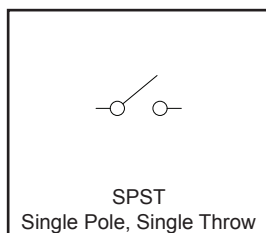
3

HOW MANY POLES AND THROWS DO YOU NEED?

Poles are the number of closed independent circuits.

Throws are the number of positions in which a given pole is closed.

Common pole/throw configurations are:



Basic examples of above configurations are:

SPST - Flashlight: 1 pole for turning the light on or off.

SPDT - Vacuum Cleaner: 1 pole for power, 1 throw for low speed, 1 throw for high speed.

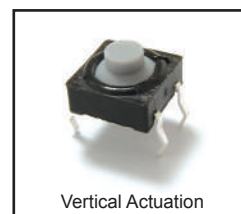
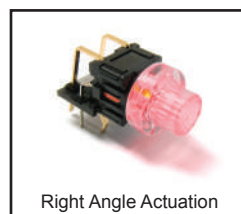
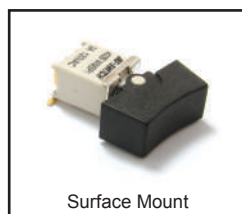
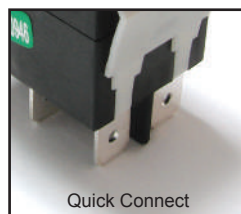
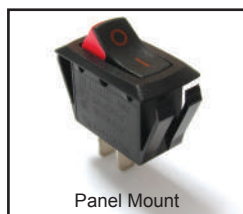
DPST - Air Conditioner: 1 pole controls the chiller, 1 pole controls the fan.

DPDT - Hair Dryer: 1 pole controls the heater, 1 pole controls the fan, 1 throw is for low speed, 1 throw is for high speed.

4

HOW DOES THE SWITCH ATTACH TO YOUR PRODUCT?

1. Panel Mount
 - What is the panel cutout size?
 - What is the thickness of the panel?
 - What type of termination?
 - » Quick connect or solder lug
2. PC Board Mount
 - What type of termination?
 - » Through hole or surface mount
 - What type of actuation?
 - » Right angle or vertical
 - Do you need a process sealed component?



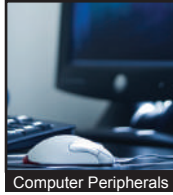
5

WHAT IS YOUR APPLICATION?

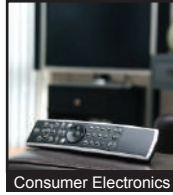
Knowing the application that the switch goes into aids us in the ability to look for unique instances where certain switches work better than others. Below are some examples of industries we sell our switches to.



Audio / Visual



Computer Peripherals



Consumer Electronics



Electrical Housewares



Floor Care Appliances



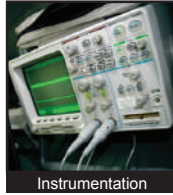
Gaming and Computer



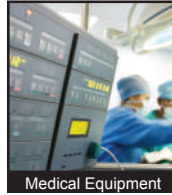
Handheld Devices



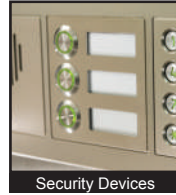
Industrial Controls



Instrumentation



Medical Equipment



Security Devices



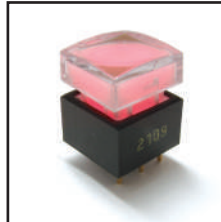
White Goods

6

ARE THERE ANY ADDITIONAL REQUIREMENTS?

Many products have requirements that are not initially thought of. Some might make the switch more aesthetically pleasing and others will help the switch perform better under special circumstances. Below are examples that should be brought up during discussion:

- Momentary or Latching
- Illumination
- Sealed Protection (IP Rating)
- Custom Cap Options
 - » Colors
 - » Graphics
 - » Styles
- Long Life Expectancy
- High Inrush or Horse Power Rating
- Extreme Temperature Rating
- Custom User Requirements



7

WHAT IS THE ESTIMATED ANNUAL USAGE (EAU)?

If you are looking for a custom switch, it is important to know an accurate EAU for your project. Once we know, we are able to determine how feasible certain customizations are. Since unique requirements sometimes incur additional tooling charges, knowing in the beginning will help expedite the process.











Anti-vandal switches feature a metal housing and actuator which is sealed from dust and moisture penetration. The ULV anti-vandal series is also UL certified. These features along with the capacity for a long life expectancy make anti-vandal switches ideal for rugged use in harsh weather conditions, such as vending kiosks and parking ticket dispensers. The anti-vandal switches offer a variety of options, including bi-color and pattern illumination, different actuator styles and housing material.



ANTI-VANDAL SWITCH SERIES

		Electrical Ratings	Cutout Diameter / Panel Depth	Functions Available	Terminal Options	Actuator Options	Material Options	Illumination Options	Water Resistance Ratings	
	PV0	2A, 36VDC	Diameter: 12.2mm Max. Depth: 6mm	1 Pole: Off-(On)	Solder	High	Stainless Steel Black Anodized	Dot Ring	IP65	
	PV1	2A, 36VDC	Diameter: 19mm Max. Depth: 8mm	1 Pole: Off-(On)	Screw Solder	Domed Flat High	Anodized Aluminum Gold Plated Brass Nickel Plated Brass Stainless Steel	N/A	IP65	
	PV2	2A, 48VDC	Diameter: 16mm Max. Depth: 6mm	1 Pole: Off-(On)	Screw Solder	Domed Flat High	Anodized Aluminum Gold Plated Brass Nickel Plated Brass Stainless Steel	N/A	IP65	
	PV3	2A, 48VDC	Diameter: 16mm Max. Depth: 10mm or 14mm	1 Pole: On-(On) 2 Pole: On-(On)	Solder	Concave Flat Guarded High	Anodized Aluminum Gold Plated Brass Nickel Plated Brass Stainless Steel	Bi-Color Dot Ring	IP67 Optional	
	PV4	2A, 24VDC .7A 125VAC (cURus)	Diameter: 19mm Max. Depth: 10mm	1 Pole: On-On On-(On) 1P Off-(On) + 1P On-(Off) 2 Pole: On-On On-(On)	Screw Solder	Flat High	Anodized Aluminum Nickel Plated Brass Stainless Steel	Bi-Color Dot Ring Arrow	IP65	
	PV5	2A, 36VDC	Diameter: 12mm Max. Depth: 6mm	1 Pole: Off-(On)	Screw Solder	Domed	Anodized Aluminum Nickel Plated Brass Stainless Steel	N/A	IP65	

Specifications subject to change without notice






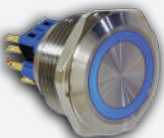


E-SWITCH®

www.e-switch.com

800.867.2717

7

ANTI-VANDAL SWITCH SERIES

Electrical Ratings		Cutout Diameter / Panel Depth	Functions Available	Terminal Options	Actuator Options	Material Options	Illumination Options	Water Resistance Ratings	
	PV6	2A, 48VDC	Diameter: 16mm Max. Depth: 9mm	1 Pole: Off-(On)	Solder	Flat High	Anodized Aluminum Nickel Plated Brass Stainless Steel	Bi-Color Dot Ring	IP65
	PV7	2A, 48VDC	Diameter: 22mm Max. Depth: 8mm (Momentary), 13mm (Maintained)	1 Pole: 1P Off-On + 1P On-Off 1P Off-(On) + 1P On-(Off)	Solder	Flat	Anodized Aluminum Nickel Plated Brass Stainless Steel	Bi-Color Dot Ring	IP65
	PV8	2A, 48VDC	Diameter: 25mm Max. Depth: 10mm (Momentary), 14mm (Maintained)	1 Pole: 1P Off-On + 1P On-Off 1P Off-(On) + 1P On-(Off) 2 Pole: 2P Off-On + 2P On-Off 2P Off-(On) + 2P On-(Off)	Solder	Flat	Anodized Aluminum Nickel Plated Brass Stainless Steel	Bi-Color Dot Ring	IP65
	PV9	2A, 48VDC	Diameter: 28mm Max. Depth: 10mm (Momentary), 13mm (Maintained)	1 Pole: 1P Off-On + 1P On-Off 1P Off-(On) + 1P On-(Off) 2 Pole: 2P Off-On + 2P On-Off 2P Off-(On) + 2P On-(Off)	Solder	Flat	Nickel Plated Brass Stainless Steel	Bi-Color Dot Ring	IP65
	PVA6	2A, 48VDC	Diameter: 16mm Max. Depth: 6mm	1 Pole: Off-(On)	Solder Wire Lead	Dome Flat High	Anodized Aluminum Stainless Steel Brushed Stainless Steel	Ring Power Symbol	IP67
	PVL	N/A	Diameter: 6-19mm Max. Depth: 6mm to 10mm (depending on mounting diameter)	N/A	Solder	Flat	Stainless Steel Black	Pilot Lamp	IP67

Specifications subject to change without notice





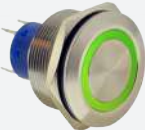
E-SWITCH®

www.e-switch.com

800.867.2717

8










ANTI-VANDAL SWITCH SERIES (UL CERTIFIED)

Electrical Ratings		Cutout Diameter / Panel Depth	Functions Available		Terminal Options	Actuator Options	Material Options	Illumination Options	Water Resistance Ratings	
	ULV4	3A 250VAC (cURus)	Diameter: 19mm Max. Depth: 10mm	1 Pole:	Solder	Flat High	Anodized Aluminum Nickel Plated Brass Stainless Steel	Bi-Color Dot Ring Power	IP67	
				2 Pole:						
	ULV7	3A 250VAC (cURus)	Diameter: 22mm Max. Depth: 10mm	1 Pole:	Solder	Flat	Anodized Aluminum Stainless Steel	Bi-Color Ring w/ Power	IP67	
				2 Pole:						
	ULV8	3A 250VAC (cURus)	Diameter: 25mm Max. Depth: 10mm	1 Pole:	Solder	Flat	Anodized Aluminum Stainless Steel	Ring Bi-color	IP67	
				2 Pole:						

Specifications subject to change without notice



PUSHBUTTON SWITCH SERIES (SUBMINIATURE)

General Ratings		Electrical Ratings	Poles / Throws / Functions Travel	Bushing Options	Terminal Options	Water Resistance Ratings		
	700 <i>*Panel Mount Version</i>	Life Cycles: 50,000 Operating Force: 200gf Operating Temperature: -30°C to 85°C Contact Resistance: 10mΩ Max. Insulation Resistance: 1,000MΩ Min.	Silver: 3A, 120VAC [cURus] 3A, 28VDC 1A, 250VAC [cURus] Gold: 0.4VA, Max. 20V (AC or DC)	1.0mm	SPDT: On-(On) DPDT: On-(On)	Panel Cutout 12.7mm x 15.7mm	Quick Connect Solder	N/A
	700	Life Cycles: 50,000 Operating Force: 200gf Operating Temperature: -30°C to 85°C Contact Resistance: 10mΩ Max. Insulation Resistance: 1,000MΩ Min.	Silver: 3A, 120VAC [cURus] 3A, 28VDC 1A, 250VAC [cURus] Gold: 0.4VA, Max. 20V (AC or DC)	1.0mm	SPDT: On-(On) DPDT: On-(On)	Flat Non-Threaded Flat Threaded Keyway Non-Threaded Keyway Threaded	Right Angle PCB Pin Solder Vertical PCB Pin Vertical PCB Pin with Bracket Wire Wrap	N/A
	700A	Life Cycles: 50,000 Operating Force: 300gf Operating Temperature: -30°C to 85°C Contact Resistance: 20mΩ Max. Insulation Resistance: 1,000MΩ Min.	Silver: 3A, 120VAC [cURus] 3A, 28VDC 1A, 250VAC [cURus] Gold: 0.4VA, Max. 20V (AC or DC)	1.0mm	SPDT: On-(On) DPDT: On-(On)	Non-Threaded Threaded	Right Angle PCB Pin Solder Vertical PCB Pin Vertical PCB Pin with Bracket	
	700C	Life Cycles: 50,000 Operating Force: 400gf SP7, 600gf DP7 Operating Temperature: -30°C to 85°C Contact Resistance: 10mΩ Max. Insulation Resistance: 1,000MΩ Min.	Silver: 3A, 120VAC [cURus] 3A, 28VDC 1A, 250VAC [cURus] Gold: 0.4VA, Max. 20V (AC or DC)	3.0mm	SPDT: On-On	Flat Non-Threaded Flat Threaded Keyway Non-Threaded Keyway Threaded	Right Angle PCB Pin Solder Vertical PCB Pin Vertical PCB Pin with Bracket	N/A
	800	Life Cycles: 50,000 Operating Force: 200gf Operating Temperature: -30°C to 85°C Contact Resistance: 10mΩ Max. Insulation Resistance: 1,000MΩ Min.	Silver: 3A, 120VAC [cURus] 3A, 28VDC 1A, 250VAC [cURus] Gold: 0.4VA, Max. 20V (AC or DC)	0.9mm	SPST Off-(On) SPDT On-(On)	Flat Non-Threaded Flat Threaded Non-Threaded	Right Angle PCB Pin Solder Right Angle PCB Pin with Bracket Vertical PCB Pin Vertical PCB Pin with Bracket	N/A
	800A	Life Cycles: 50,000 Operating Force: 200gf Operating Temperature: -30°C to 85°C Contact Resistance: 10mΩ Max. Insulation Resistance: 1,000MΩ Min.	Silver: 1A, 120VAC [cURus] 1A, 28VDC Gold: 0.4VA, Max. 20V (AC or DC)	0.9mm	SPST Off-(On) SPDT On-(On)	Non-Threaded	Right Angle PCB Pin Vertical PCB Pin	IP67
	800B	Life Cycles: 50,000 Operating Force: 200gf Operating Temperature: -30°C to 85°C Contact Resistance: 20mΩ Max. Insulation Resistance: 1,000MΩ Min.	Silver: 3A, 120VAC [cURus] 3A, 28VDC 1A, 250VAC [cURus] Gold: 0.4VA, Max. 20V (AC or DC)	0.9mm	SPST Off-(On) SPDT On-(On)	Non-Threaded	Surface Mount	IP67
	800C	Life Cycles: 6,000 Operating Force: 350gf Operating Temperature: -30°C to 85°C Contact Resistance: Silver: 50mΩ Max initial Gold: 20mΩ Max initial Insulation Resistance: 1,000MΩ Min.	Silver: 3A, 120VAC or 28VDC 1A, 250VAC Gold: 0.4VA, Max. 20V (AC or DC)	Electrical Make: 1.34mm Full travel: 1.88mm	SPDT On-On	Non-Threaded Threaded		N/A
	800U	Life Cycles: 6,000 Operating Force: 250gf Operating Temperature: -30°C to 85°C Contact Resistance: 100mΩ Initial Insulation Resistance: 500MΩ Min.	Gold: 0.4VA, Max. 20V (AC or DC)	1.0mm	SPDT On-(On) DPDT On-(On)	Non-Threaded	PC thru-hole Right Angle, PC thru-hole Vertical Right angle, PC thru-hole	IP67

Specifications subject to change without notice



E-SWITCH®

www.e-switch.com

800.867.2717

11

PUSHBUTTON SWITCH SERIES (PCB MOUNT)

		General Ratings	Electrical Ratings	Operating Force Options	Poles / Throws Travel	Mounting Options	Terminal Options	Water Resistance Ratings Illumination Options		
	5500	Life Cycles: 500,000 Operating Temperature: -25°C to 65°C Contact Resistance: 50mΩ Max. Insulation Resistance: 50MΩ Min.	300mA, 12VDC	255gf Max.	2.5mm	SPDT	PCB	PCB Pin	1 or 2 Dot	N/A
	FS5700	Life Cycles: 30,000 Operating Temperature: -10°C to 70°C Contact Resistance: 50mΩ Max. Insulation Resistance: 100MΩ Min. @ 500VDC	1A, 9VDC	1000gf to 3000gf	2.7mm to 5.0mm	SPDT DPDT 3PDT	PCB Panel Mount	PCB Pin Soldering Lugs	N/A	N/A
	KS1100	Life Cycles: 50,000,000 Operating Temperature: -10°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min. @ 100VDC	10mA, 12VDC	60gf	4.0mm	SPST	PCB	PCB Pin	N/A	N/A
	LC	Life Cycles: 10,000 Operating Temperature: -20°C to 85°C Contact Resistance: 20mΩ Max. Insulation Resistance: 100MΩ Min.	300mA, 30VDC	200gf to 330gf	3.5mm	SPDT DPDT	PCB	Right Angle PCB Pin	N/A	N/A
	LP11	Life Cycles: 200,000 Operating Temperature: -20°C to 70°C Contact Resistance: 200mΩ Max. Insulation Resistance: 100MΩ Min.	100mA, 12VDC	250gf	4.5mm	SPST	PCB	PCB Pin	Full	N/A
	LP15	Life Cycles: 300,000 Operating Temperature: -20°C to 70°C Contact Resistance: 200mΩ Max. Insulation Resistance: 100MΩ Min.	1mA, 20VDC	125gf	1.3mm	SPST	PCB	PCB Pin	Full	N/A
	LP16	Life Cycles: 50,000,000 Operating Temperature: -5°C to 60°C Contact Resistance: 150mΩ Max. Insulation Resistance: 10MΩ Min.	100mA, 200VDC	250gf	3.3mm	SPST	PCB	PCB Pin	Full	N/A
	LP2	Life Cycles: 300,000 Operating Temperature: -20°C to 70°C Contact Resistance: 200mΩ Max. Insulation Resistance: 100MΩ Min.	1mA, 20VDC 5mA, 5VDC	125gf	1.3mm	SPST	PCB	PCB Pin	Full	N/A
	LP37	Life Cycles: 30,000 Operating Temperature: -30°C to 85°C Contact Resistance: 50mΩ Max. Insulation Resistance: 1,000MΩ Min.	10mA to 250mA 20mVDC to 50VDC	250gf	Full: 5.1mm Switching: 2.95mm Latching: 3.3mm	SPDT	PCB	Right Angle PCB Pin	Dot	N/A
	LP4	Life Cycles: 50,000 Operating Temperature: -20°C to 70°C Contact Resistance: 50mΩ Max. Insulation Resistance: 100MΩ Min.	100mA, 30VDC	250gf	Full: 1.5mm Latching: 1.0mm	DPDT	PCB	PCB Pin	Full	N/A

Specifications subject to change without notice



E-SWITCH®

www.e-switch.com

800.867.2717

12

PUSHBUTTON SWITCH SERIES (PCB MOUNT)

		General Ratings	Electrical Ratings	Operating Force Options	Poles / Throws	Mounting Options	Terminal Options	Water Resistance Ratings		Illumination Options	
	LP6	Life Cycles: 200,000 Operating Temperature: -20°C to 70°C Contact Resistance: 50mΩ Max. Insulation Resistance: 100MΩ Min.	12mA, 12VDC	150gf SPST 200gf DPST	2.2mm	SPST DPST	PCB	PCB Pin	Full	N/A	
	P197	Electrical Life: 10,000 Cycles Temperature: -20°C to 85°C Contact Resistance: 100mΩ Max. Insulation Resistance: 1,000MΩ Min.	10A, 125VAC [cURus] 5A, 250VAC [cURus, VDE] TV-5 125VAC [cURus]	300gf	3.5mm	SPST	PCB Panel Mount	Right Angle PCB Pin Solder	N/A	N/A	
	PBH	Life Cycles: 6,000 Operating Temperature: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	100mA, 30VDC	230gf DPDT 280gf 4PDT 380gf 6PDT	5.5mm	DPST DPDT	PCB	Right Angle PCB Pin	N/A	N/A	
	PB300	Life Cycles: 20,000 Operating Temperature: -40°C to 95°C Contact Resistance: 50mΩ Max. Initial Insulation Resistance: 100MΩ Min.	30mA, 28VDC	ST: 490gf DT 1st position: 600gf 2nd position: 1150gf	2.0mm	SPST SPDT	PCB	PCB Pin	N/A	N/A	
	TL2201 TL4201	Life Cycles: 10,000 Operating Temperature: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	100mA, 30VDC	220gf DPDT 300gf 4PDT	2.5mm	DPDT 4PDT	PCB	PCB Pin	N/A	N/A	
<i>*TL2201 Pictured</i>											
	TL2203	Life Cycles: 10,000 Operating Temperature: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	100mA, 30VDC	180gf	1.9mm	DPDT	PCB	PCB Pin	N/A	N/A	
	TL2205	Life Cycles: 10,000 Operating Temperature: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	100mA, 30VDC	250gf	Full: 2.5mm Lock: 1.5mm	DPDT	PCB	PCB Pin	Dot	N/A	
	TL2230	Life Cycles: 10,000 Operating Temperature: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	100mA, 30VDC	140gf 230gf	1.8mm	DPDT	PCB	PCB Pin	N/A	N/A	
	TL2285	Life Cycles: 10,000 Operating Temperature: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	100mA, 30VDC	180gf	2.5mm	DPDT	PCB	PCB Pin	N/A	N/A	
	WBL	Life Cycles: 10,000 Operating Temperature: -20°C to 70°C Contact Resistance: 50mΩ Max. Insulation Resistance: 100MΩ Min.	300mA, 30VDC	200gf	Full: 3.3mm Lock: 2.5mm	DPDT 4PDT	PCB	Right Angle PCB Pin	Full	N/A	

Specifications subject to change without notice



E-SWITCH®

www.e-switch.com

800.867.2717

13

PUSHBUTTON SWITCH SERIES (PANEL MOUNT)

		General Ratings	Electrical Ratings	Operating Force Options	Poles / Throws / Functions	Travel	Panel Cutout Dimensions	Terminal Options	Illumination Options	Water Resistance Ratings
	D16	Electrical / Mechanical Life: 50,000 / 100,000 Cycles Operating Temperature: -20°C to 55°C Contact Resistance: 100mΩ Max. Insulation Resistance: 1,000MΩ Min.	8A, 125VAC [cURus, CSA] 5A, 250VAC [cURus, VDE] 6A, 24VDC [cURus, CSA]	300gf	3.0mm	SPDT, DPDT, 3PDT, 4PDT On-On On-(On)	16mm Diameter	Solder	Full	N/A
	L16	Operating Temperature: -20°C to 55°C Insulation Resistance: 1,000MΩ Min.	N/A	N/A	N/A	Signal Light	16mm Diameter	Solder	Full Signal Light	N/A
	LA	Electrical / Mechanical Life: 50,000 / 100,000 Cycles Operating Temperature: -20°C to 55°C Contact Resistance: 100mΩ Max. Insulation Resistance: 1,000MΩ Min.	8A, 125VAC [cURus] 5A, 250VAC [cURus] 2A, 250VDC [cURus] 6A, 24VDC [cURus]	300gf	3.0mm	SPDT, DPDT, 3PDT, 4PDT On-On On-(On)	22mm Diameter 25.5mm Diameter 30.5mm Diameter	Socket Solder Tab	Full Signal Light	IP65
	LP1	Electrical / Mechanical Life: 50,000 / 50,000 Cycles Operating Temperature: -20°C to 55°C Contact Resistance: 50mΩ Max. Insulation Resistance: 100MΩ Min.	100mA, 30VDC	250gf	1.8mm	SPST Off-(On)	8.2mm Diameter	Solder	Full	N/A
	MDP-16	Electrical / Mechanical Life: 6,000 / 50,000 Cycles Operating Temperature: -25°C to 55°C Contact Resistance: 100mΩ Max. Insulation Resistance: 50MΩ Min.	8A, 125VAC [cURus, VDE] 5A, 250VAC [cURus, VDE]	SPDT 500gf DPDT 800gf	3.0mm	SPDT On-On On-(On) DPDT On-On On-(On)	16mm Diameter	Tab	Full	N/A

Specifications subject to change without notice



E-SWITCH®

www.e-switch.com

800.867.2717

14

PUSHBUTTON SWITCH SERIES (PANEL MOUNT)

		General Ratings	Electrical Ratings	Operating Force Options	Travel	Poles / Throws / Functions	Panel Cutout Dimensions	Terminal Options	Illumination Options	Water Resistance Ratings
	P16	Electrical / Mechanical Life: 50,000 / 100,000 Cycles Operating Temperature: -20°C to 55°C Contact Resistance: 100mΩ Max. Insulation Resistance: 1,000MΩ Min.	8A, 125VAC cURus 5A, 250VAC [VDE] 6A, 24VDC	300gf	3.0mm	SPDT, DPDT, 3PDT, 4PDT On-On On-(On)	16mm Diameter	Socket	Full	N/A
	PA4	Electrical / Mechanical Life: 10,000 / 50,000 Cycles Operating Temperature: -20°C to 65°C -20°C to 125°C Contact Resistance: 20mΩ Max. Insulation Resistance: 100MΩ Min.	16A, 125VAC [cURus] 16A, 250VAC [cURus] 16(4)A, 250VAC [ENEC] 16(8)A, 250VAC [ENEC]	500gf	4.5mm	SPST Off-On Off-(On)	13mm x 19mm PCB	PCB Pin Solder Tab	Full	IP54
	PA5	Electrical / Mechanical Life: 10,000 / 50,000 Cycles Operating Temperature: -20°C to 125°C Contact Resistance: 20mΩ Max. Insulation Resistance: 100MΩ Min.	16A, 125VAC [cURus] 16A, 250VAC [cURus] 16(4)A, 250VAC [ENEC] 16(8)A, 250VAC [ENEC]	500gf	5.5mm	SPST Off-On Off-(On) DPST Off-On Off-(On)	Capture Mount PCB	PCB Pin Solder Tab	N/A	N/A
	PB1973	Electrical / Mechanical Life: 10,000 / 30,000 Cycles Operating Temperature: -10°C to 55°C Contact Resistance: 20mΩ Max. Insulation Resistance: 1,000MΩ Min.	15A, 125VAC [cURus] 15A, 250VAC [cURus] 10(4)A, 250VAC [VDE]	300gf to 800gf	2.8mm	SPST Off-On Off-(On) DPST Off-On Off-(On)	13mm x 19.2mm	Tab	Full	N/A
	PB2	Electrical / Mechanical Life: 6,000 / 50,000 Cycles Operating Temperature: 0°C to 85°C Contact Resistance: 50mΩ Max. Insulation Resistance: 5MΩ Min.	20A, 125VAC [UR] 12A, 250VAC [UR]	600gf	3.1mm	SPST Off-On On-On DPST Off-On On-On	22mm x 30mm	Tab	Dot	IP54

Specifications subject to change without notice



E-SWITCH®

www.e-switch.com

800.867.2717

15

PUSHBUTTON SWITCH SERIES (PANEL MOUNT)

General Ratings		Electrical Ratings	Operating Force Options	Travel	Poles / Throws / Functions	Panel Cutout Dimensions	Terminal Options		Water Resistance Ratings	
	PP1	Electrical / Mechanical Life: 6,000 / 50,000 Cycles Operating Temperature: 0°C to 85°C Contact Resistance: 10mΩ Max. Insulation Resistance: 2MΩ Min.	16A, 125VAC [cURus] 12A, 250VAC [cURus] 1HP, 125/250VAC [cURus]	300gf to 500gf	Push Only Push: 9.4mm Push-Pull Push: 5.0mm Pull: 5.7mm	SPDT On2-On1-(On2) Push-Pull On-(On)	13.3mm x 28.2mm	Tab	N/A	N/A
	PP2	Electrical / Mechanical Life: 6,000 / 50,000 Cycles Operating Temperature: 0°C to 85°C Contact Resistance: 10mΩ Max. Insulation Resistance: 10MΩ Min.	Rating Option 1: 10R(4)A 277VAC 5E4 [UL] Rating Option 2: 16A, 125VAC [cURus] 12A, 250VAC [cURus] 1HP, 125/250VAC [cURus]	300gf to 500gf	Push Only Push: 9.4mm Push-Pull Push: 5.0mm Pull: 5.7mm	DPDT On2-On1-(On2) Push-Pull On-(On)	13.5mm x 36mm	Tab	N/A	N/A
	PR1	Electrical / Mechanical Life: 50,000 / 100,000 Cycles Operating Temperature: -20°C to 105°C [cURus] -20°C to 125°C [ENEC] Contact Resistance: 35mΩ Max. Insulation Resistance: 100MΩ Min.	16A, 125VAC [cURus] 3/4HP, 250VAC [cURus] 16(6)A, 250VAC [ENEC] 10(4)A, 250VAC [ENEC]	1,800gf	6.2mm	SPST Off-On Off-(On) DPST Off-On Off-(On)	25mm Diameter	Tab	Full	IP54 Optional
	RP3508	Electrical / Mechanical Life: 6,000 / 20,000 Cycles Operating Temperature: 0°C to 65°C Contact Resistance: 100mΩ Max. Insulation Resistance: 1,000MΩ Min.	3A, 125VAC [cURus] 1.5A, 250VAC [cURus]	500gf	3.5mm	SPST Off-On Off-(On)	15mm x 16mm (Rounded Edge)	Solder	Full	N/A
	RP8100	Electrical / Mechanical Life: 500,000 Cycles Operating Temperature: -30°C to 85°C Contact Resistance: 50mΩ Max. Insulation Resistance: 1,000MΩ Min.	125mA, 125VAC 100mA, 50VDC	350gf	1.5mm	SPST Off-(On)	13.6mm Diameter	Solder	Dot	IP67
	RP8200	Electrical / Mechanical Life: 200,000 Cycles Operating Temperature: -30°C to 85°C Contact Resistance: 100mΩ Max. Insulation Resistance: 1,000MΩ Min.	100mA, 24VDC	560gf	2.5mm	SPST Off-On	13.6mm Diameter	Solder	Dot	IP67

Specifications subject to change without notice



E-SWITCH®

www.e-switch.com

800.867.2717

16

PUSHBUTTON SWITCH SERIES (PANEL MOUNT)

		General Ratings	Electrical Ratings	Operating Force Options	Travel	Poles / Throws / Functions	Panel Cutout Dimensions	Terminal Options	Illumination Options	Water Resistance Ratings
	RP8300	Electrical / Mechanical Life: 500,000 Cycles Operating Temperature: -30°C to 85°C Contact Resistance: 50mΩ Max. Insulation Resistance: 1,000MΩ Min.	500mA, 48 VAC 200mA, 50 VDC 200mA, 250 VAC	350gf	1.5mm	SPST Off-(On)	13.6mm Diameter	Solder	Dot	IP67
	RP8400	Electrical / Mechanical Life: 500,000 Cycles Operating Temperature: -30°C to 85°C Contact Resistance: 50mΩ Max. Insulation Resistance: 1,000MΩ Min.	500mA, 48 VAC 200mA, 50 VDC 200mA, 250 VAC	350gf	1.5mm	SPST Off-(On)	13.6mm Diameter	Solder	Dot	IP67
	RP8500	Electrical / Mechanical Life: 500,000 Cycles Operating Temperature: -30°C to 85°C Contact Resistance: 50mΩ Max. Insulation Resistance: 1,000MΩ Min.	125mA, 125VAC 100mA, 50VDC	350gf	1.5mm	SPST Off-(On)	13.6mm Diameter	Solder	Dot	IP67
	RP8600	Electrical / Mechanical Life: 50,000 / 100,000 Cycles Operating Temperature: -30°C to 85°C Contact Resistance: 200mΩ Initial @2-4VDC, 100mA Insulation Resistance: 100MΩ @500VDC	0.4VA Max @20V Max (AC or DC)	630gf	0.65mm	SPST Off-(On)	16.0mm Diameter	Solder	N/A	IP67
	ULP	Electrical / Mechanical Life: 200,000 / 1,000,000 Cycles Operating Temperature: -20°C to 70°C Contact Resistance: 50mΩ Max. (Silver) 100mΩ Max. (Gold) Insulation Resistance: 1,000MΩ Min.	Silver: 500mA, 25VDC 200mA, 250VAC Gold: 0.4VA, Max. at 28V (AC or DC)	SPDT 200gf DPDT 300gf	2.2mm	SPST On-On On-(On) DPST On-On On-(On)	15.8mm x 16mm PCB 15.8mm x 18mm Panel Mount Cut-out size	PCB Pin Solder	Full	N/A

Specifications subject to change without notice



E-SWITCH®

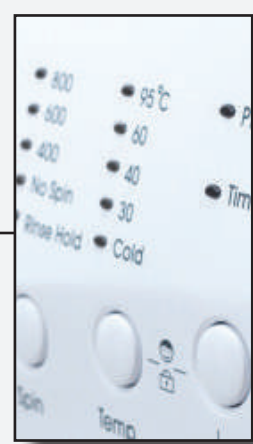
www.e-switch.com

800.867.2717

17



Tactile switches are very reliable and economical due to their unique features. Being extremely low profile and having a long operating life, tactile switches are used in common markets like telecommunication, medical, audio, and computer. With an array of options, such as multiple actuation forces and actuator lengths, consumers can benefit from a soft to strong touch of a button.



TACTILE SWITCH SERIES (PART 1)

		General Ratings	Electrical Ratings	Travel	Body Dimensions	Operating Force Options (gf)	Mounting Options	Washable	
	320	Multiple Actuator Styles Life Cycles: 1,000,000 Operating Temp: -20°C to 70°C Contact Resistance: 50mΩ Max. Insulation Resistance: 1,000MΩ Min.	25mA, 50VDC	0.5mm	12.4mm x 12.4mm 12.4mm x 22.0mm	135	PCB Pin	N/A	
	LL1105	Multiple Actuator Styles Life Cycles: 5,000,000 Operating Temp: -20°C to 70°C Contact Resistance: 50mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm	6.0mm x 6.0mm	65	PCB Pin	N/A	
	TL1014	Life Cycles: up to 200,000 Operating Temp: -40°C to 85°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm (160 gf) 0.30mm (220 gf)	4.7mm x 3.5mm	160, 220	SMT (Gull Wing)	N/A	
	TL1015	Life Cycles: 200,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.20mm	2.9mm x 3.9mm	160	SMT (Gull Wing)	N/A	
	TL1100	Multiple Actuator Styles Life Cycles: 100,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.3mm	12.0mm x 12.0mm	160, 260	PCB Pin	N/A	
	TL1105	Caps Available Life Cycles: 100,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm	6.0mm x 6.0mm	100, 160, 250	PCB Pin	N/A	
	TL1107	Multiple Actuator Styles Life Cycles: 30,000 (260gf), 50,000 (130gf & 180gf) Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm	3.5mm x 6.0mm	130, 180, 260	PCB Pin	N/A	
	TL1220	Caps Available Life Cycles: 500,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.2mm	7.5mm x 7.5mm 10.0mm x 14.0mm 10.0mm x 19.0mm 7, 8, 10mm Dia	180	PCB Pin	N/A	
	TL1240	Caps Available / LED Illuminated Life Cycles: 100,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm	6.0mm x 6.0mm	160	PCB Pin	N/A	
	TL1250	Life Cycles: 50,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm	7.0mm x 8.3mm	120, 180, 280	PCB Pin	N/A	

Specifications subject to change without notice



E-SWITCH®

www.e-switch.com

800.867.2717

19

TACTILE SWITCH SERIES (PART 2)

		General Ratings	Electrical Ratings	Travel	Body Dimensions	Operating Force Options (gf)	Mounting Options	Washable	
	TL1260	Caps Available / LED Illuminated Life Cycles: 50,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.2mm	6.8mm x 7.0mm	160	PCB Pin	N/A	
	TL1265	Caps Available / LED Illuminated Life Cycles: 500,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.2mm	6.8mm x 7.0mm	160	PCB Pin	N/A	
	TL2243	Double Stacked Low Profile Life Cycles: 30,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	40mA, 12VDC	0.25mm	7.3mm x 9.1mm	180	PCB Pin	N/A	
	TL3200	Single or Dual LED Illumination Life Cycles: 30,000 Operating Temp: -25°C to 85°C Contact Resistance: 500mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm	6.8mm x 4.5mm	160	SMT (Gull Wing)	N/A	
	TL3210	LED Illuminated Life Cycles: 100,000 Operating Temp: -20°C to 70°C Contact Resistance: 500mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.2mm	5.6mm x 3.4mm	160	SMT (Gull Wing)	N/A	
	TL3215	LED Illuminated Life Cycles: 1,000,000 Operating Temp: -40°C to 85°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm	4.9mm x 4.9mm	160	SMT (Gull Wing)	N/A	
	TL3240	LED Illuminated / Caps Available Life Cycles: up to 200,000 Operating Temp: -25°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.2mm	6.1mm x 6.1mm	100, 160, 260	SMT (Gull Wing)	N/A	
	TL3253	LED Illuminated Life Cycles: up to 500,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm	8.4mm x 10.55mm	160	Right Angle PCB Pin	N/A	
	TL3265	Multiple Actuator Styles Life Cycles: up to 500,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min. @ 500VDC	5mA, 12VDC	0.2mm	6.8mm x 7.0mm	160	PCB Pin	N/A	
	TL3300	Multiple Actuator Styles Life Cycles: up to 200,000 Operating Temp: -25°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.35mm	12mm x 12mm	160, 260, 320, 520	SMT (Gull Wing)	N/A	
	TL3301	Caps Available / Multiple Actuator Styles Life Cycles: 100,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm	6.0mm x 6.0mm	100, 160, 260	SMT (Gull Wing)	N/A	

Specifications subject to change without notice



E-SWITCH®

www.e-switch.com

800.867.2717

20

TACTILE SWITCH SERIES (PART 3)

		General Ratings	Electrical Ratings	Travel	Body Dimensions	Operating Force Options (gf)	Mounting Options	Washable
	TL3302	Multiple Actuator Styles Life Cycles: 20,000 - 50,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm	3.5mm x 6.0mm	130, 180, 260	SMT (Gull Wing)	N/A
	TL3303	Multiple Actuator Styles Life Cycles: 100,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm	6.0mm x 6.0mm	100, 160, 260	SMT (Gull Wing)	N/A
	TL3305	Life Cycles: up to 500,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.20mm	4.5mm x 4.5mm	160, 260	SMT (Gull Wing)	N/A
	TL3313	Life Cycles: 100,000 Operating Temp: -20°C to 70°C Contact Resistance: 50mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm	4.8mm x 4.8mm	100, 160, 250	SMT (Gull Wing)	N/A
	TL3315	Life Cycles: 100,000 (100gf), 500,000 (160gf), 200,000 (250gf) Operating Temp: -20°C to 70°C Contact Resistance: 200mΩ Max. Insulation Resistance: 50MΩ Min.	50mA, 12VDC	0.2mm	4.5mm x 4.5mm	100, 160, 250	SMT (Gull Wing)	N/A
	TL3330	Life Cycles: 50,000 (130gf), 30,000 (260gf) Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm	6.9mm x 3.3mm	100, 200	Right Angle SMT (Gull Wing)	N/A
	TL3340	Life Cycles: 100,000 Operating Temp: -35°C to 85°C Contact Resistance: 500mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 15VDC	0.2mm	4.25mm x 3.3mm	160	Right Angle SMT (Gull Wing)	N/A
	TL3342	Life Cycles: 100,000 Operating Temp: -20°C to 70°C Contact Resistance: 20mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm	5.2mm x 5.2mm	160, 250	SMT (Gull Wing)	N/A
	TL3360	Life Cycles: 200,000 Operating Temp: -25°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.15mm	6.5mm x 6mm	185, 260	Right Angle SMT (Gull Wing)	N/A

Specifications subject to change without notice



E-SWITCH®

www.e-switch.com

800.867.2717

21

TACTILE SWITCH SERIES (PART 4)

		General Ratings	Electrical Ratings	Travel	Body Dimensions	Operating Force Options (gf)	Mounting Options	Washable	
	— TL3365	Life Cycles: 100,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.20mm	4.2mm x 3.2mm	180	SMT (Gull Wing)	N/A	
	— TL3700	Life Cycles: 100,000 Operating Temp: -40°C to 85°C Contact Resistance: 500mΩ Max. Insulation Resistance: 100MΩ Min.	20mA, 15VDC	0.15mm	3.0mm x 2.6mm	100, 160	SMT (Gull Wing)	N/A	
	— TL3780	Life Cycles: up to 500,000 Operating Temp: -40°C to 85°C Contact Resistance: 500mΩ Max. Insulation Resistance: 50MΩ Min	20mA, 15VDC	0.13mm	2.0mm x 3.0mm	240, 330	SMT (Gull Wing)	N/A	
	— TL3901	Life Cycles: 50,000 Operating Temp: -40°C to 85°C Contact Resistance: 500mΩ Max. Insulation Resistance: 100MΩ Min	50mA, 12VDC	0.3mm	5.4mm x 5.0mm	180	Right Angle Edge (Gull Wing)	N/A	
	— TL4100	Life Cycles: 1,000,000 Operating Temp: -40°C to 85°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.15mm	3.5mm x 6.2mm	120, 240	Right Angle Edge (Gull Wing)	N/A	
	— TL4105	Life Cycles: 200,000 Operating Temp: -40°C to 85°C Contact Resistance: 1Ω Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.15mm	2.9mm x 4.8mm	160	Right Angle Edge (Gullwing)	N/A	
	— TL52	IP67 Rated Life Cycles: 100,000 Operating Temp: -25°C to 85°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.3mm	8.0mm x 8.0mm	160, 260	PCB Pin	●	
	— TL58	Multiple Actuator Styles Life Cycles: 100,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm	6.2mm x 6.2mm	100, 160, 260	Right Angle PCB Pin	N/A	
	— TL59	Multiple Actuator Styles Life Cycles: 100,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.25mm	6.2mm x 6.2mm	100, 160, 260	PCB Pin	N/A	
	— TL6100	Caps Available / Multiple Actuator Styles Life Cycles: up to 1,000,000 Operating Temp: -40°C to 85°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.5mm	7.4mm x 7.4mm	130, 160, 300, 500	PCB Pin	●	

Specifications subject to change without notice



E-SWITCH®

www.e-switch.com

800.867.2717

22

TACTILE SWITCH SERIES (PART 5)

		General Ratings	Electrical Ratings	Travel	Body Dimensions	Operating Force Options (gf)	Mounting Options	Washable	
	TL6105	Caps Available / Multiple Actuator Styles Life Cycles: up to 1,000,000 Operating Temp: -40°C to 85°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.5mm	7.4mm x 7.4mm	130, 160, 300, 500	PCB Pin w/ Earth ground terminal	●	
	TL6110	Caps Available / Multiple Actuator Styles Life Cycles: up to 1,000,000 Operating Temp: -40°C to 85°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.5mm	5.8mm x 8.3mm	130, 160, 300, 500	Right Angle PCB Pin	●	
	TL6120	Caps Available / Multiple Actuator Styles Life Cycles: up to 1,000,000 Operating Temp: -40°C to 85°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.5mm	7.4mm x 7.4mm	130, 160, 300, 500	SMT (Gull Wing)	●	
	TL6190	Caps Available Life Cycles: 100,000 Operating Temp (Switch): -40°C to 105°C Operating Temp (Cap): -40°C to 85°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.5mm	12.0mm x 11.5mm	160, 220, 320	Right Angle PCB Pin	●	
	TL6200	Life Cycles: 10,000,000 Operating Temp: -20°C to 70°C Contact Resistance: 30mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 24VDC	1.0mm	6.9mm x 6.2mm	300	SMT (Gull Wing) PCB Pin	●	
	TL6210	LED Illuminated Life Cycles: 100,000 Operating Temp: -20°C to 70°C Contact Resistance: 500mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.45mm	6.2mm x 4.6mm	200	SMT (Gull Wing)	●	
	TL6215	Caps Available / LED Illuminated Life Cycles: 500,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.45mm	7.7mm x 6.37mm	200, 450	Vertical or Right Angle PCB Pin	●	
	TL6700	Life Cycles: 500,000 (160gf), 100,000 (260gf) Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ Min.	50mA, 12VDC	0.45mm	6.9mm x 6.2mm	160, 260	SMT (Gull Wing J-Bend)	●	
	TL9100	Life Cycles: 100,000(200gf); 30,000(350gf) Operating Temp: -40°C to 85°C Contact Resistance: 100mΩ Max. Insulation Resistance: 100MΩ @500 VDC.	50mA, 12VDC	1.3mm	6.0mm x 6.0mm	200, 350	SMT (J-Bend)	N/A	
	TL9210	Life Cycles: 100,000 Operating Temp: -20°C to 70°C Contact Resistance: 100mΩ initial Insulation Resistance: 100MΩ Min. @100VDC	50mA, 12VDC	1.3mm	6.0mm x 6.0mm	180, 260	SMT (J-Bend)	N/A	

Specifications subject to change without notice

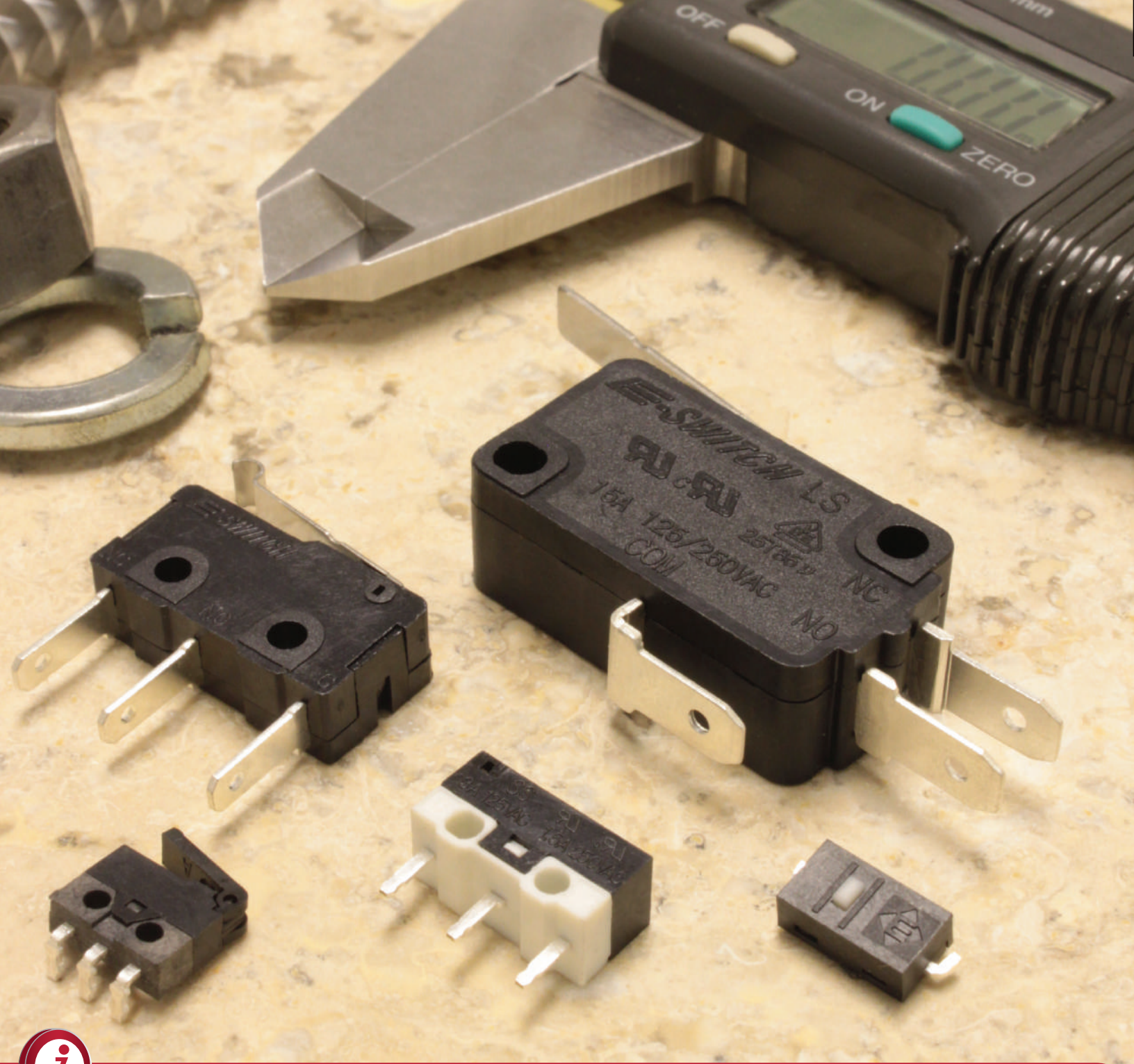


E-SWITCH®

www.e-switch.com

800.867.2717







23



Snap Action switches are uniquely designed to deliver a very precise “Turn-ON” function as well as featuring a very rapid actuation. Most actuator styles are easily customized. The actuation force and lever length also can be customizable at a low cost to fit many requirements. They are commonly used in vending machines, timing controls, power tools and the gaming industry.



SNAP ACTION SWITCH SERIES

		General Ratings	Electrical Ratings	Functions	Operating Force Options*	Actuator Options	Terminal Options	Body Options	
	LS	Electrical Life: 50,000 Cycles Mechanical Life: 1,000,000 Cycles Operating Temp: -25°C to 85°C Contact Resistance: 100mΩ Max.	Silver cURus, VDE: 15A, 125/250VAC Gold: 0.4VA, 20V (AC or DC)	SPST N.O. SPST N.C. SPDT	25, 40, 45, 50, 60, 75, 85, 100, 120, 140, 160, 250	Pin Plunger Lever Roller Simulated Roller	Quick Connect Right Angle PCB Pin Left Angle PCB Pin Solder	Width: 27.9mm Height: 15.9mm Depth: 10.3mm	
	MS	Electrical Life: 50,000 Cycles Mechanical Life: 1,000,000 Cycles Operating Temp: -25°C to 85°C Contact Resistance: 100mΩ Max.	Silver cURus: 5A, 125/250VAC Gold: 0.4VA, 20V (AC or DC)	SPST N.O. SPDT	10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 95, 115, 130, 150, 175, 190, 250, 295	Pin Plunger Lever Roller Simulated Roller Custom	Quick Connect PCB Pin Right Angle PCB Pin Left Angle PCB Pin Solder	Width: 19.8mm Height: 10.6mm Depth: 6.4mm	
	SS	Electrical Life: 100,000 Cycles Mechanical Life: 1,000,000 Cycles Operating Temp: -25°C to 75°C Contact Resistance: 100mΩ Max.	Silver cURus: 3A, 125VAC 1.5A, 250VAC 0.1A, 5VDC Gold: 0.4VA, 20V (AC or DC)	SPDT	15, 20, 25, 30, 35, 40, 50, 70, 90, 110, 130	Pin Plunger Lever Simulated Roller	PCB Pin PCB Retention Right Angle PCB Pin Left Angle PCB Pin Solder	Width: 12.7mm Height: 6.5mm Depth: 5.75mm	
	TS	Electrical Life: 50,000 Cycles Mechanical Life: 100,000 Cycles Operating Temp: -25°C to 85°C Contact Resistance: 300mΩ Max.	300mA, 6VDC	SPDT	20	Lever	Vertical PCB Pin Right Angle PCB Pin Short Left Angle PCB Pin Short Right Angle PCB Pin Long Left Angle PCB Pin Long	Width: 8.2mm Height: 6.6mm Depth: 2.7mm	
	TS2	Electrical Life: 3,000,000 Cycles Mechanical Life: 3,000,000 Cycles Operating Temp: -25°C to 85°C Contact Resistance: 300mΩ Max.	100mA, 125VAC 100mA, 48VDC	SPST	70	Pin Plunger	SMT Terminals	Width: 8.6mm Height: 3.0mm Depth: 4.8mm	
	WS	Electrical Life: 10,000 Cycles Mechanical Life: 1,000,000 Cycles Operating Temp: -25°C to 85°C Contact Resistance: 100mΩ Max.	1A, 24VDC 2A, 12VDC 0.1A, 125 VAC	SPDT	70,50	Pin Plunger Lever	PCB Pins Soldering Lugs	Width: 13.3mm Height: 7.0mm Depth: 5.3mm	

Specifications subject to change without notice

*Not all force options work with all actuator options.



E-SWITCH®

www.e-switch.com

800.867.2717






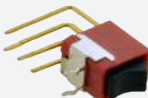
25



Rocker switches open or close an electrical circuit by pivoting between the terminal contacts as the user rocks the actuator back and forth. Our rocker switches come in many different shapes and sizes, ranging from low milliamp ratings to high power ratings with horse power. We also offer some that are sealed up to IP67 standards and many different styles of actuation with illumination are available.



ROCKER SWITCH SERIES (SUBMINIATURE)

Electrical Ratings		Poles / Functions	Actuator Options	Mounting Options	Terminal Options	Water Resistance Ratings	
	300	Silver: 5A, 120VAC [cURus] 5A, 28VDC 2A, 250VAC [cURus]	1, 2, 3, or 4 Pole: On-On On-(On) On-Off-On (On)-Off-(On) On-Off-(On)	Paddle Rocker	Panel Mount: Quick Connect Vertical Solder PC Mount: Horizontal Right Angle Horizontal Right Angle with Bracket Vertical Vertical Right Angle Vertical with Bracket	PCB Pin Quick Connect Solder	N/A
		Gold: 0.4VA, 20V (AC or DC)	2 Pole: On-On-On On-On-(On) (On)-On-(On) 4 Pole: On-On-On				
	300A	Silver: 5A, 120VAC [cURus] 5A, 28VDC 2A, 250VAC [cURus]	1 or 2 Pole: On-On On-(On) On-Off-On (On)-Off-(On) On-Off-(On)	Paddle Rocker	Panel Mount: Quick Connect Vertical Solder PC Mount: Horizontal Right Angle Horizontal Right Angle with Bracket Vertical Vertical Right Angle Vertical with Bracket	PCB Pin Quick Connect Solder	IP67
		Gold: 0.4VA, 20V (AC or DC)					
	400	Silver: 3A, 120VAC [cURus] 3A, 28VDC 1A, 250VAC [cURus]	1 Pole: On-On On-(On) On-Off-On (On)-Off-(On) On-Off-(On) Off-On	Rocker	Panel Mount: Vertical Solder PC Mount: Horizontal Right Angle Horizontal Right Angle with Bracket Vertical Vertical Right Angle Vertical Right Angle with Bracket Vertical with Bracket	PCB Pin Solder	N/A
		Gold: 0.4VA, 20V (AC or DC)	2 Pole: On-On On-(On) On-Off-On				
	400A	Silver: 3A, 120VAC [cURus] 3A, 28VDC 1A, 250VAC [cURus]	1 Pole: On-On On-(On) On-Off-On (On)-Off-(On) On-Off-(On) Off-On	Rocker	Panel Mount: Vertical Solder PC Mount: Horizontal Right Angle Horizontal Right Angle with Bracket Vertical Vertical Right Angle Vertical Right Angle with Bracket Vertical with Bracket	PCB Pin Solder	IP67
		Gold: 0.4VA, 20V (AC or DC)	2 Pole: On-On On-(On) On-Off-On				
	400B	Silver: 3A, 120VAC [cURus] 1A, 250VAC [cURus]	1 Pole: On-On On-(On) On-Off-On (On)-Off-(On) On-Off-(On)	Rocker	PC Mount: Surface Mount	PCB Pin	IP67
	400U	Gold: 0.4VA@ 24V AC or DC	2 Pole: On-None-On	Rocker Lever	PC Mount: Vertical Right Angle, PC thru-hole Right Angle, PC thru-hole PC thru-hole	PCB Pin	IP67

Specifications subject to change without notice



E-SWITCH®

www.e-switch.com

800.867.2717

27

ROCKER SWITCH SERIES (RECTANGULAR PANEL MOUNT)

		Electrical Ratings	Poles / Functions	Panel Cutout Dimensions	Actuator Options	Illumination Options	Water Resistance Ratings	
	R1966	15A, 125VAC T65 [cURus] 8A, 250VAC T65 [cURus] 6A, 250VAC T85 [VDE]	1 Pole: On-Off On-Off-On Off-(On) On-Off-(On) On-On On-(Off) On-(On) (On)-Off-(On)	13mm x 19.2mm	Curved	Full	N/A	
	R1973	9A, 125VAC T65 [cURus] 6A, 250VAC T65 [cURus] 4(1)A, 250VAC T85 [VDE]	1 Pole: On-Off 2 Pole: On-Off	13mm x 19.2mm	Curved	Full	N/A	
	R4	20A, 125VAC T65 [cURus] 15A, 125VAC T65 [cURus] 3/4HP, 125VAC [cURus] 1HP, 250VAC [cURus] 15A, 250VAC T85 [VDE] 10A, 250VAC T85 [VDE]	1 Pole: On-Off On-Off-On Off-(On) On-(Off) On-On On-(On) (On)-Off-(On) On-Off-(On)	11mm x 30mm	Curved	Full Dott	N/A	
	R5	20A, 125VAC T65 [cURus] 15A, 125VAC T65 [cURus] 3/4HP, 125VAC [cURus] 1HP, 250VAC [cURus] 16A, 250VAC T85 [VDE] 10A, 250VAC T85 [VDE]	2 Pole: On-Off On-Off-On Off-(On) On-(Off) On-On On-(On) (On)-Off-(On) On-Off-(On)	22mm x 30mm	Curved	Full	N/A	
	R6	10A, 125VAC T65 [cURus] 6A, 250VAC T65 [cURus]	1 Pole: On-Off (On)-Off	6.65mm x 19.2mm	Curved	N/A	N/A	
	R7	16(8)A, 125/250VAC [cURus] 20(8)A, 125/250VAC [cURus] 16A, 30VDC [cURus]	1 or 2 Pole: On-Off (On)-Off On-(Off) On-Off-On On-On (On)-On (On)-Off-On (On)-Off-(On)	21.1mm x 37mm	Hard PC or TPR	Multiple Lens Options	IP67	
	RA1	16A, 125VAC 1/3HP T105 [cURus] 10A, 250VAC 1/3HP T105 [cURus] 10(4)A, 250VAC 1E4 T125 [ENEC] 10(2)A, 250VAC 5E4 T85/55 [ENEC]	1 Pole: Off-On On-(On) Off-(On) On-Off-On On-(Off) On-On (On)-Off-(On)	13mm x 19mm	Bi-Color Curved Custom	Full Signal Light	IP54 with cap	
	RA2	16A, 125VAC 1/3HP T105 [cURus] 10A, 250VAC 1/3HP T105 [cURus] 10(4)A, 250VAC 1E4 T125 [ENEC] 10(2)A, 250VAC 5E4 T85 [ENEC]	1 Pole (Each Actuator): Off-On Off-(On) On-(Off) On-On On-Off-On	22mm x 19mm	Curved	Signal Light	IP54 with cap	
	RA4	16A, 125VAC 1/3HP T105 [cURus] 10A, 250VAC 1/3HP T105 [cURus] 10(4)A, 250VAC T125 1E4 [ENEC] 10(2)A, 250VAC T85 5E4 [ENEC]	1 or 2 Pole: Off-On Off-(On) On-(Off) On-On On-Off-On On-(On)	22mm x 19.2mm	Curved Paddle	Full	IP54 with cap	

Specifications subject to change without notice












E-SWITCH®

www.e-switch.com

800.867.2717

28

ROCKER SWITCH SERIES (RECTANGULAR PANEL MOUNT)

		Electrical Ratings	Poles / Functions	Panel Cutout Dimensions	Actuator Options	Illumination Options	Water Resistance Ratings
	RA8	16A, 125VAC 1/3HP T105 [cURus] 10A, 250VAC 1/3HP T105 [cURus] 10(4)A, 250VAC 1E4 T125/55 [ENEC] 10(2)A, 250VAC 5E4 T85/55 [ENEC]	1 Pole: Off-On 2 Pole: Off-On	13mm x 19mm	Bi-color Curved	Full Signal Light	IP54 with cap
	RB1	20A, 125VAC 1/4HP T65 [cURus] 20A, 250VAC 3/4HP T65 [cURus] 20(8)A, 250VAC 1E4 T125 [ENEC] 16(4)A, 250VAC 1E4 T85/55 [ENEC] 10(2)A, 250VAC 5E4 T85/55 [ENEC]	1 Pole: Off-On On-(On) Off-(On) On-Off-On On-(Off) On-Off-(On) On-On (On)-Off-(On)	11mm x 30mm	Curved Flat	Dot Full Signal Light	IP54 with cap
	RB2	20A, 125VAC 1/4HP T65 [cURus] 20A, 250VAC 3/4HP T65 [cURus] 16(8)A, 250VAC 1E4 T125 [ENEC] 10(2)A, 250VAC 5E4 [ENEC] 16(4)A, 250VAC 1E4 T85/55 [ENEC]	1 or 2 Pole: Off-On On-Off-On (On)-Off-(On) 2 Pole Only: Off-(On) On-On On-Off-(On) On-(On)	22mm x 30mm	Curved Flat	Dot Full Signal Light	IP54 with cap
	RB4	16A, 125VAC T85 [cURus] 8A, 250VAC T85 [cURus] 16(4)A, 250VAC 1E4 T125 [ENEC]	1 Pole (Each Actuator): Off-On On-(On) Off-(On) On-Off-On On-(Off) On-Off-(On) On-On (On)-Off-(On)	22mm x 30mm	Curved Flat	Dot Full Signal Light	IP54 with cap
	RBW2	16(16)A, 125VAC 5E4 T85 [cURus] 1/3HP, 125VAC IP66 [cURus] 10(10)A, 250VAC 5E4 T85 [VDE]	2 Pole: Off-On *On-On	22mm x 30mm	Curved	Full	IP66
	RD1	16A, 125VAC 1/3HP T105 [cURus] 10A, 250VAC 1/3HP T105 [cURus] 10(4)A, 250VAC 1E4 T125 [ENEC] 10(2)A, 250VAC 5E4 T85 [ENEC]	1 Pole: Off-On	6.8mm x 19.2mm	Curved	N/A	N/A
	RSC	20A, 125VAC 1/4HP T105 [cURus] 16A, 250VAC 3/4HP T105 [cURus] 20(8)A, 250VAC 1E4 T125 [ENEC] 16(4)A, 250VAC 1E4 T125 [ENEC] 10(2)A, 250VAC 5E4 T125 [ENEC]	1 Pole: Off-On Off-(On) On-On	28.6mm x 13.9mm 27.2mm x 12.1mm 27.2mm x 13.9mm 28.6mm x 12.1mm	Bi-Color Curved Flat	Full Signal Light	N/A
	RVW	20A, 125VAC [cURus UL508] 15A, 277VAC [cURus UL508] 2HP, 220-240VAC [cURus UL508] Momentary Switches: 1.5HP, 220-240VAC [cURus UL508]	1 or 2 Pole: Off-On Off-(On) On-(Off) On-Off-(On) On-On On-Off-On On-(On) (On)-Off-(On)	21mm x 36.8mm	Curved	N/A	IP54
	WB2	Maintained Switches: 20A, 125/250VAC T65/T85 [cURus] 2.0HP, 125/250VAC [cURus] 18(12)A, 250VAC 5E4 T85 [TUV] Momentary Switches: 20A, 125/250VAC T65/T85 [cURus] 1.5HP, 125/250VAC [cURus] 18(10)A, 250VAC 5E4 T85 [TUV]	2 Pole: Off-On Off-(On) (On)-Off-(On) On-On On-Off-On On-(On)	22mm x 30mm	Curved	N/A	IP55

Specifications subject to change without notice

*Option only available with non-illuminated version.



E-SWITCH®

www.e-switch.com

800.867.2717

29

ROCKER SWITCH SERIES (OVAL / ROUND PANEL MOUNT)

		Electrical Ratings	Poles / Functions	Panel Cutout Dimensions	Actuator Options	Illumination Options	Water Resistance Ratings	
	RE1	16A, 125VAC 1/3HP T105 [cURus] 10A, 250VAC 1/3HP T105 [cURus] 10(4)A, 250VAC 1E4 T125 [ENEC] 10(2)A, 250VAC 5E4 T85 [ENEC]	1 Pole: Off-On On-On	On-Off-On	13.5mm x 23.3mm (Oval)	Curved	Full	N/A
	RR1	16A, 125VAC 1/3HP T105 [cURus] 10A, 250VAC 1/3HP T105 [cURus] 10(4)A, 250VAC 1E4 T125/55 [ENEC] 10(2)A, 250VAC 5E4 T85/55 [ENEC]	1 Pole: Off-On Off-(On) On-(Off) On-Off-(On)	On-On On-Off-On On-(On)	20mm Diameter	Curved	Dot Full Signal Light	IP54 with cap
	RR3112	16A, 125VAC T65 [cURus] 10A, 250VAC T65 [cURus]	1 Pole: On-Off On-Off-On	On-On Off-(On)	20.2mm Diameter	Curved	Full	N/A
	RR3130	10A, 125VAC T65 [cURus] 6A, 250VAC T65 [cURus]	1 Pole: On-Off 2 Pole: On-On	On-On	18.2mm Diameter	Curved	N/A	N/A
	RR3402	6A, 125VAC [cURus] 3A, 250VAC [cURus]	1 Pole: On-Off On-Off-On	On-On	15mm Diameter	Paddle	N/A	N/A

Specifications subject to change without notice



E-SWITCH®

www.e-switch.com

800.867.2717

30

ROCKER SWITCH SERIES (OVAL / ROUND PANEL MOUNT)



RR5

20A, 125VAC T65 [cURus]
12A, 250VAC T65 [cURus]
10(4)A, 250VAC 5E4 T125 [ENEC]

1 Pole:
Off-On

Off-(On)

20mm Diameter

Curved

N/A

N/A



RR8

16A, 125VAC 1/3HP T105 [cURus]
10A, 250VAC 1/3HP T105 [cURus]
10(4)A, 250VAC 1E4 T125/55 [ENEC]
10(2)A, 250VAC 5E4 T85/55 [ENEC]

1 Pole:
Off-On

2 Pole:
Off-On

20mm Diameter

Curved

Full

N/A



RRA

15A, 125VAC 1/3HP T105 [cURus]
10A, 250VAC 1/3HP T105 [cURus]

1 Pole:
Off-On
On-Off-On

On-On

2 Pole:
Off-On
On-Off-On

On-On

22mm Diameter

Curved

Full

IP54 with cap



RRG3

16A, 125VAC 1/3HP T105 [cURus]
10A, 250VAC 1/3HP T105 [cURus]
10(4)A, 250VAC 1E4 T125/55 [ENEC]

1 Pole:
Off-On
Off-(On)
On-(Off)
On-Off-(On)

On-On
On-Off-On
On-(On)

20mm Diameter

Curved

N/A

N/A



RRGA

16A, 125VAC 1/3HP T105 [cURus]
10A, 250VAC 1/3HP T105 [cURus]
10(4)A, 250VAC 1E4 T125/55 [ENEC]

1 Pole:
Off-On
Off-(On)
On-(Off)
On-Off-(On)

On-On
On-Off-On
On-(On)

22mm Diameter

Curved

N/A

N/A

Specifications subject to change without notice

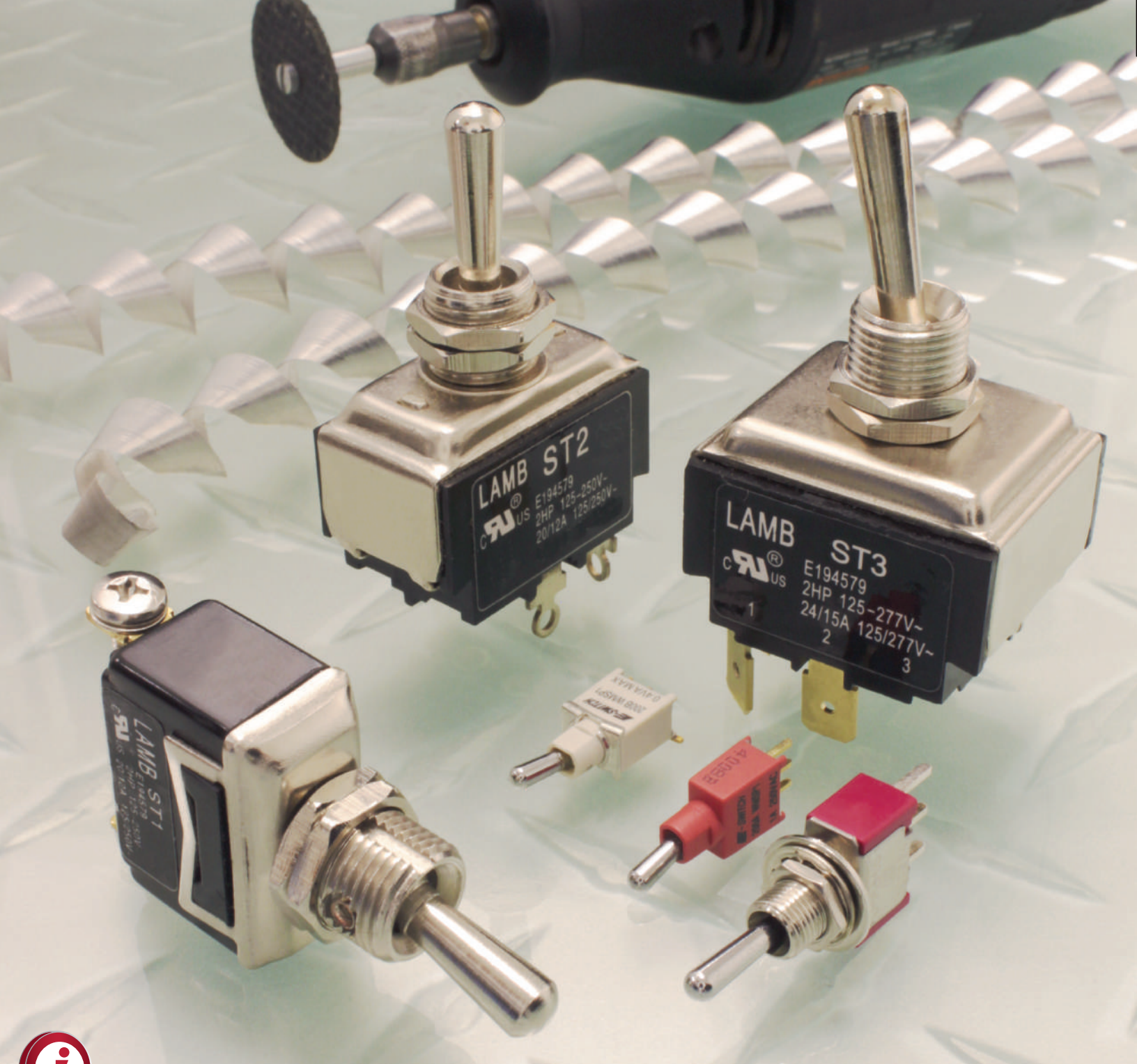


E-SWITCH®

www.e-switch.com

800.867.2717











31



Toggle switches are actuated by a mechanical lever and are used in both big industrial applications and smaller board level applications. Our toggle switches include a wide variety of actuator, bushing, and terminal options as well as low and high amperage ratings. There are even a few with horse power ratings for some of the more industrial strength applications.



TOGGLE SWITCH SERIES

		General Ratings	Electrical Ratings	Poles / Functions	Actuator Options	Bushing Options	Terminal Options	Water Resistance Ratings	
	100	Electrical Life: 6,000 Cycles Mechanical Life: 30,000 Cycles Operating Temp: -30°C to 85°C Contact Resistance: 10mΩ Max.	Silver: 5A, 120VAC [cURus] 5A, 28VDC 2A, 250VAC [cURus] Gold: 0.4VA, 20V Max. (AC or DC)	1 or 3 Pole: On-On On-(On) On-Off-On (On)-Off-(On) On-Off-(On) 2 or 4 Pole: On-On On-(On) On-Off-On (On)-Off-(On) On-Off-(On) On-On-On On-On-(On) (On)-On-(On)	Flat Locking Metal Plastic	High Torque Non-Threaded Threaded Splash Proof	Quick Connect Right Angle PCB Pin Solder Vertical PCB Pin Wire Wrap	N/A	
	100A	Electrical Life: 6,000 Cycles Mechanical Life: 30,000 Cycles Operating Temp: -30°C to 85°C Contact Resistance: 10mΩ Max.	Silver: 5A, 120VAC [cURus] 5A, 28VDC 2A, 250VAC [cURus] Gold: 0.4VA, 20V Max. (AC or DC)	1 Pole: On-On On-(On) On-Off-On (On)-Off-(On) On-Off-(On) 2 Pole: On-On On-(On) On-Off-On (On)-Off-(On) On-Off-(On)	Metal Plastic	Non-Threaded Threaded	Right Angle PCB Pin Solder Vertical PCB Pin Wire Wrap	IP67	
	200	Electrical Life: 6,000 Cycles Mechanical Life: 30,000 Cycles Operating Temp: -30°C to 85°C Contact Resistance: 10mΩ Max.	Silver: 3A, 120VAC [cURus] 3A, 28VDC 1A, 250VAC [cURus] Gold: 0.4VA, 20V Max. (AC or DC)	1 Pole: On-On On-(On) On-Off-On (On)-Off-(On) On-Off-(On) Off-On 2 Pole: On-On On-(On) On-Off-On	Metal	Non-Threaded Threaded	Right Angle PCB Pin Solder Vertical PCB Pin	N/A	
	200A	Electrical Life: 6,000 Cycles Mechanical Life: 30,000 Cycles Operating Temp: -30°C to 85°C Contact Resistance: 10mΩ Max.	Silver: 3A, 120VAC [cURus] 3A, 28VDC 1A, 250VAC [cURus] Gold: 0.4VA, 20V Max. (AC or DC)	1 Pole: On-On On-(On) On-Off-On (On)-Off-(On) On-Off-(On) Off-On 2 Pole: On-On On-(On) On-Off-(On)	Metal Plastic	Non-Threaded	Right Angle PCB Pin Vertical PCB Pin	IP67	
	200B	Electrical Life: 6,000 Cycles Mechanical Life: 30,000 Cycles Operating Temp: -30°C to 85°C Contact Resistance: 20mΩ Max.	Gold: 0.4VA, 20V Max. (AC or DC)	1 Pole: On-(On) On-Off-On (On)-Off-(On) On-Off-(On)	Metal Plastic	Non-Threaded	Surface Mount	IP67	
	200R	Electrical Life: 6,000 Cycles Mechanical Life: 40,000 Cycles Operating Temp: -30°C to 85°C Contact Resistance: 50mΩ Max.	Gold: 0.4VA, 48V Max. (AC or DC)	1 or 2 Pole: On-None-On On-None-(On) On-None-(On) On-Off-On (On)-Off-(On) On-Off-(On)	Metal	Non-Threaded	Surface Mount Right Angle PCB Pin Verticle Right Angle PCB Pin	N/A	
	200U	Electrical Life: 40,000 Cycles Mechanical Life: 40,000 Cycles Operating Temp: -30°C to 85°C Contact Resistance: 100mΩ Max.	Gold: 0.4VA, 20V Max. (AC or DC)	1 or 2 Pole: Off-On On-On On-Off-On	Plastic	Non-Threaded	PCB Pin Right Angle PCB Pin Vertical Right Angle- PCB Pin	IP67	
	ST1	Electrical Life: 6,000 Cycles Mechanical Life: 100,000 Cycles Operating Temp: -20°C to 85°C Contact Resistance: 50mΩ Max.	Maintained Switches: 20A, 125VAC [cURus] 15A, 277VAC [cURus] 2HP, 125-277VAC [cURus] Momentary Switches: 20A, 125VAC [cURus] 15A, 277VAC [cURus] 1.5HP, 125-277VAC [cURus]	2 Pole: Off-On On-On Off-(On) On-Off-On On-Off-(On) (On)-Off-(On)	Metal	Threaded	Quick Connect Screw Solder Wire Leads	N/A	
	ST2								
	ST3	Electrical Life: 6,000 Cycles Mechanical Life: 100,000 Cycles Operating Temp: -30°C to 85°C Contact Resistance: 50mΩ Max.	Maintained Switches: 24A, 125VAC [cURus] 15A, 277VAC [cURus] 2HP, 125-277VAC [cURus]	3 Pole: Off-On On-On On-Off-On	Metal	Threaded	Quick Connect Screw Solder Wire Leads	N/A	

Specifications subject to change without notice

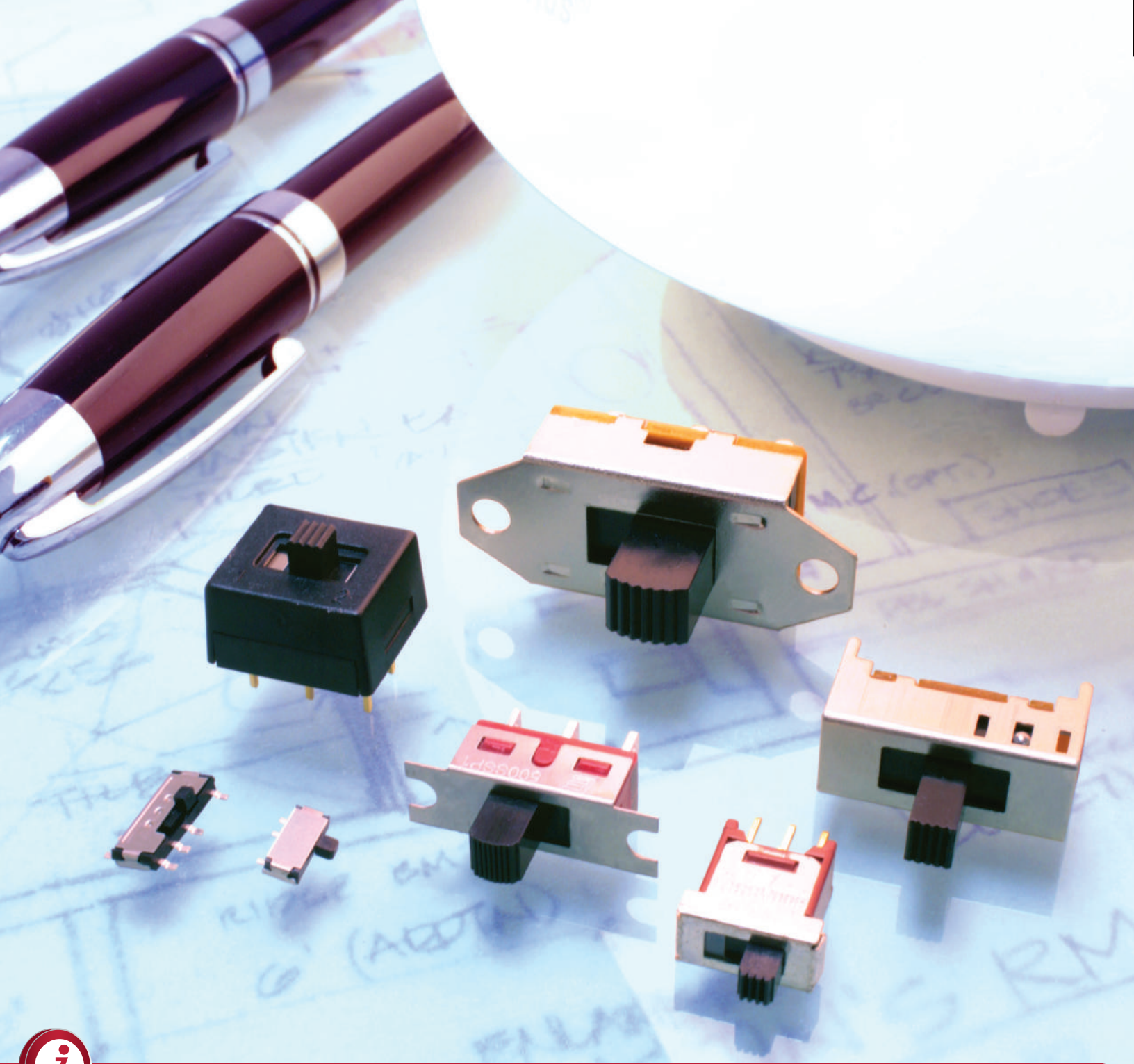


E-SWITCH®

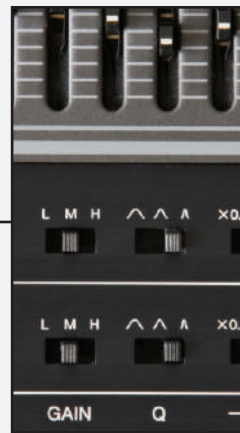
www.e-switch.com

800.867.2717





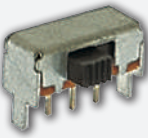
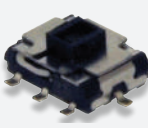
33



Slide switches function in a sliding movement from the current position to the next. The method of activation is designed to move toward a switching condition with an option of flush or raised actuators. Our diverse selection of termination types allow the switch to be mounted in a variety of ways. They are frequently used in computer servers, consumer electronics, and testing equipment.



SLIDE SWITCH SERIES

		Electrical Ratings	Number of Poles	Number of Positions	Terminal Options	Panel Mount Capable	Water Resistance Ratings	
	500	Silver: 5A, 120VAC [cURus] 2A, 250VAC [cURus] Gold: 0.4VA, 20V (AC or DC)	Up to 2 Poles	Up to 3 Positions	PCB Pin Solder Quick Connect Wire Wrap	●	N/A	
	500A	Silver: 3A, 120VAC [cURus] 1A, 250VAC [cURus] Gold: 0.4VA, 20V (AC or DC)	Up to 2 Poles	Up to 3 Positions	PCB Pin	N/A	N/A	
	500R	Gold: 0.4VA, 20V (AC or DC)	Up to 2 Poles	Up to 3 Positions	Right Angle PCB Pin Vertical PCB Pin	N/A	IP67	
	600	Silver: 1A, 30VDC Gold: 0.4VA, 20V (AC or DC)	1 Pole	Up to 3 Positions	Right Angle PCB Pin Vertical PCB Pin Surface Mount	●	N/A	
	EG	200mA, 30VDC	Up to 6 Poles	Up to 6 Positions	PCB Pin Surface Mount	●	N/A	
	EGL2290	300mA, 6VDC	2 Poles	2 Positions	Surface Mount	N/A	N/A	

Specifications subject to change without notice



E-SWITCH®

www.e-switch.com

800.867.2717

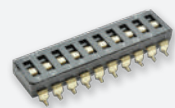
35



DIP switches are designed to be used on a PC board and are commonly used to customize the behavior of an electronic device for specific situations. DIP switches are also an alternative to jumper blocks, as one of their main advantages lies in the ability to quickly change positions. Also, there are no parts to lose. Some examples of applications include radio receivers such as the ones found in a garage door opener and a ceiling fan.



DIP SWITCH SERIES



KAE

Life Cycles: 2,000
Operating Force: 1,000gf Max.
Operating Temp: -20°C to 85°C

Switch: 25mA, 24VDC
Carry: 100mA, 50VDC

Height: 3.05
Width: 6.3
Length: Varies per
of positions

1, 2, 3, 4,
5, 6, 7, 8,
9, 10, 12

Extended
Recessed

SMT
(Gull Wing)
PCB Pin
(Splayed or
straight)

Tape and Reel
Tube

●



KAN

Life Cycles: 2,000
Operating Force: 500gf Max.
Operating Temp: -40°C to 85°C

Switch: 25mA, 24VDC
Carry: 100mA, 50VDC

Height: 1.5
Width: 4.5
Length: Varies per
of positions

2, 4, 6,
8, 10

Recessed

SMT
(Gull Wing)

Tape and Reel
Tube

●



KAP

Life Cycles: 2,000
Operating Force: 400gf Max.
Operating Temp: -40°C to 85°C

Switch: 25mA, 24VDC
Carry: 100mA, 50VDC

Height: 10.8
Width: 10.2
Length: Varies per
of positions

2, 3, 4, 5,
6, 7, 8, 9,
10, 12

Extended
Recessed

PCB Pin

Tube

●



KAC

Life Cycles: 2,000
Operating Force: 800gf Max.
Operating Temp: -20°C to 85°C

Switch: 25mA, 24VDC
Carry: 100mA, 50VDC

Height: 5.0
Width: 6.0
Length: Varies per
of positions

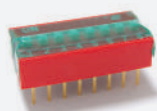
2, 4, 6,
8, 10

Extended

SMT
(Gull Wing)
PCB Pin
(Splayed)

Tape and Reel
Tube

N/A



KAS

Life Cycles: 2,000
Operating Force: 1,000gf Max.
Operating Temp: -40°C to 85°C

Switch: 25mA, 24VDC
Carry: 100mA, 50VDC

Height: 6.0
Width: 9.9
Length: Varies per
of positions

2, 3, 4, 5,
6, 7, 8, 9,
10, 12

Extended
Recessed

PCB Pin
(Vertical &
Right Angle)

Tube

●



DR

2x3, 3x3, 4x1 Layout
Life Cycles: 15,000 Steps
Operating Force: 500gf-cm Max.
Operating Temp: -40°C to 85°C

Switch: 25mA, 24VDC
Carry: 100mA, 50VDC

Height: 4.5
Width: 9.8
Length: 9.9

10, 16

Extended
Flush

PCB Pin

Tape and Reel
Tube

N/A



RDM

3x3 Layout
Life Cycles: 25,000 Steps
Operating Force: 120gf-cm Max.
Operating Temp: -60°C to 125°C

Switch: 100mA, 42VDC
Carry: 400mA, 42VDC

Height: 3.65 (Vert)
Height: 5.80 (RA)
Width: 7.4
Length: 7.4

10, 16

Extended
Flush

PCB Pin
(Vertical &
Right Angle)
SMT

Tape and Reel
Tube

IP67



RDT

2x3, 3x3 Layout
Life Cycles: 10,000 Steps
Operating Force: 700gf-cm Max.
Operating Temp: -40°C to 85°C
(Through Hole), -60°C to 125°C
(SMT)

Switch: 150mA, 42VDC
Carry: 200mA, 42VDC

Height: 6.50 (Vert)
Height: 12.05 (RA)
Width: 10.0
Length: 10.0

04, 06, 08,
10, 16

Extended
Flush

PCB Pin
(Vertical &
Right Angle)
SMT

Tape and Reel
Tube

IP67

Specifications subject to change without notice

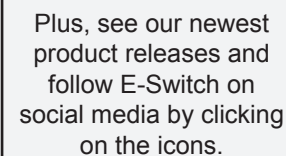


E-SWITCH®

www.e-switch.com

800.867.2717

37



RECOMMENDED SOLDERING GUIDELINES & IP RATINGS

Most contamination problems can be prevented by exercising care during the cleaning and soldering process. Care should be taken not to immerse or spray unsealed switches during flux removal. Contact E-Switch for specific soldering recommendations and specifications not found in this catalog. Generalized soldering procedures are outlined below.

HAND SOLDERING AND TEMPERATURES

Recommend soldering irons of 30 watt maximum with a tip temperature of 345°C (650°F) for 2-3 seconds and solder of 0.030 - 0.040 diameter.

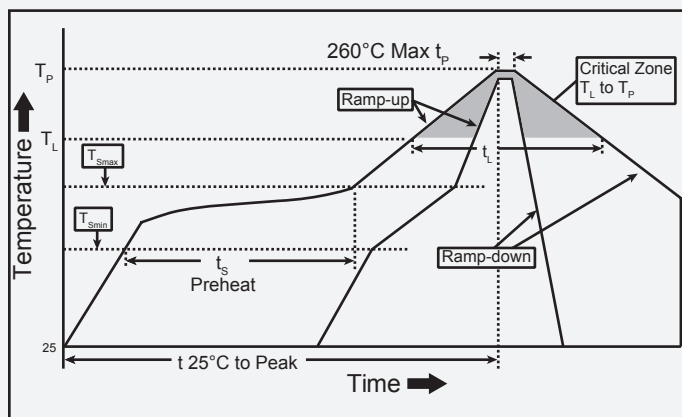
SMT REFLOW (LEAD AND LEAD-FREE)

“TYPICAL” SMT REFLOW (Pb and Pb-Free)

Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Average Ramp-Up Rate (T_{Smax} to T_P)	3°C/second max.	3°C/second max.
Preheat		
-Temperature Min. (T_{Smin})	100°C	150°C
-Temperature Max. (T_{Smax})	150°C	200°C
-Time (t_{Smin} to t_{Smax})	60-120 seconds	60-180 seconds
Time maintained above:		
-Temperature (T_L)	183°C	217°C
-Time (t_L)	60-150 seconds	60-150 seconds
Time within 5°C of actual Peak Temperature (t_p)	10-30 seconds	20-40 seconds
Ramp-Down Rate	6°C/second max.	6°C/second max.
Time 25°C to Peak Temperature	6 minutes max.	8 minutes max.

Note 1: All temperatures refer to topside of the package, measured on the package body surface.

Classification Reflow Profile

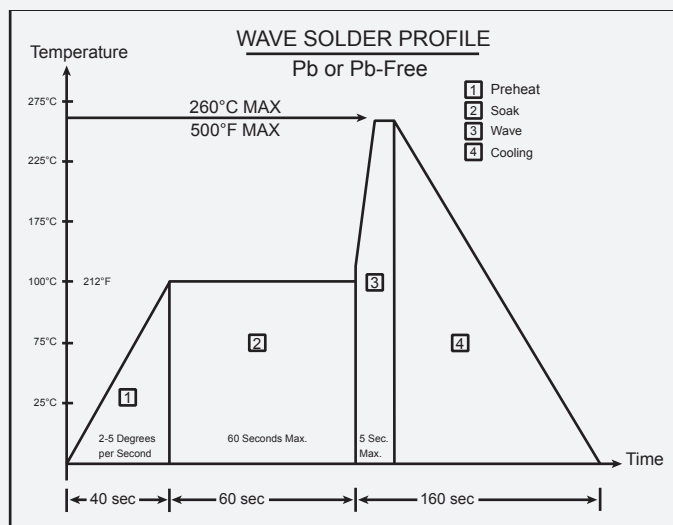


WAVE SOLDER TIME AND TEMPERATURES

When wave soldering, we recommend using a no-clean flux soldering process, rather than a process that requires washing. The fluxing process must be controlled so as not to have flux migrate inside the switch.

WAVE SOLDER

(Includes Pb-Free, max. component side preheat temp-130°C)



Good venting is required. No-clean flux vapors can enter the switch if adequate venting is not available. The vapors will condense on the internal contacts and become an insulator when they solidify.

- Preheat temperature/time: Circumferential temperature of the P.C. Board not to exceed 100°C (212°F) for 60 seconds.
- Soldering temperature/time: not to exceed 260°C (500°F) for 5 seconds.

IP Rating Chart

First Number	Definition	Second Number	Definition
Protection against solid objects		Protection against liquids	
0	No protection	0	No protection
1	Protected against solid objects over 50mm (e.g. accidental touch by hands)	1	Protected against vertically falling drops of water
2	Protected against solid objects over 12mm (e.g. fingers)	2	Protected against direct sprays up to 15° from the vertical
3	Protected against solid objects over 2.5mm (e.g. tools and wires)	3	Protected against direct sprays up to 60° from vertical
4	Protected against solid objects over 1mm (e.g. tools, wires and small wires)	4	Protected against sprays from all directions - limited ingress permitted
5	Protected against dust - limited ingress (no harmful deposit)	5	Protected against low pressure jets if water from all directions - limited ingress permitted
6	Totally protected against dust	6	Protected against strong jets of water (e.g. for use on shipdecks - limited ingress permitted)
		7	Protected against the effects of temporary immersion between 15cm and 1m. Duration of test 30 min.
		8	Protected against long periods of immersion under pressure





Phone: 763-504-3525
Toll Free (USA): 800-867-2717
Fax: 763-531-8235

Address: 8 Ubi Road 2
#07-19, Zervex
Singapore 408538

Phone: +65 6636-5112
Fax: +65 6636-5118

www.e-switch.com

Catalog Version: January 2018

For more information on other switches or custom solutions, contact any of our locations.

