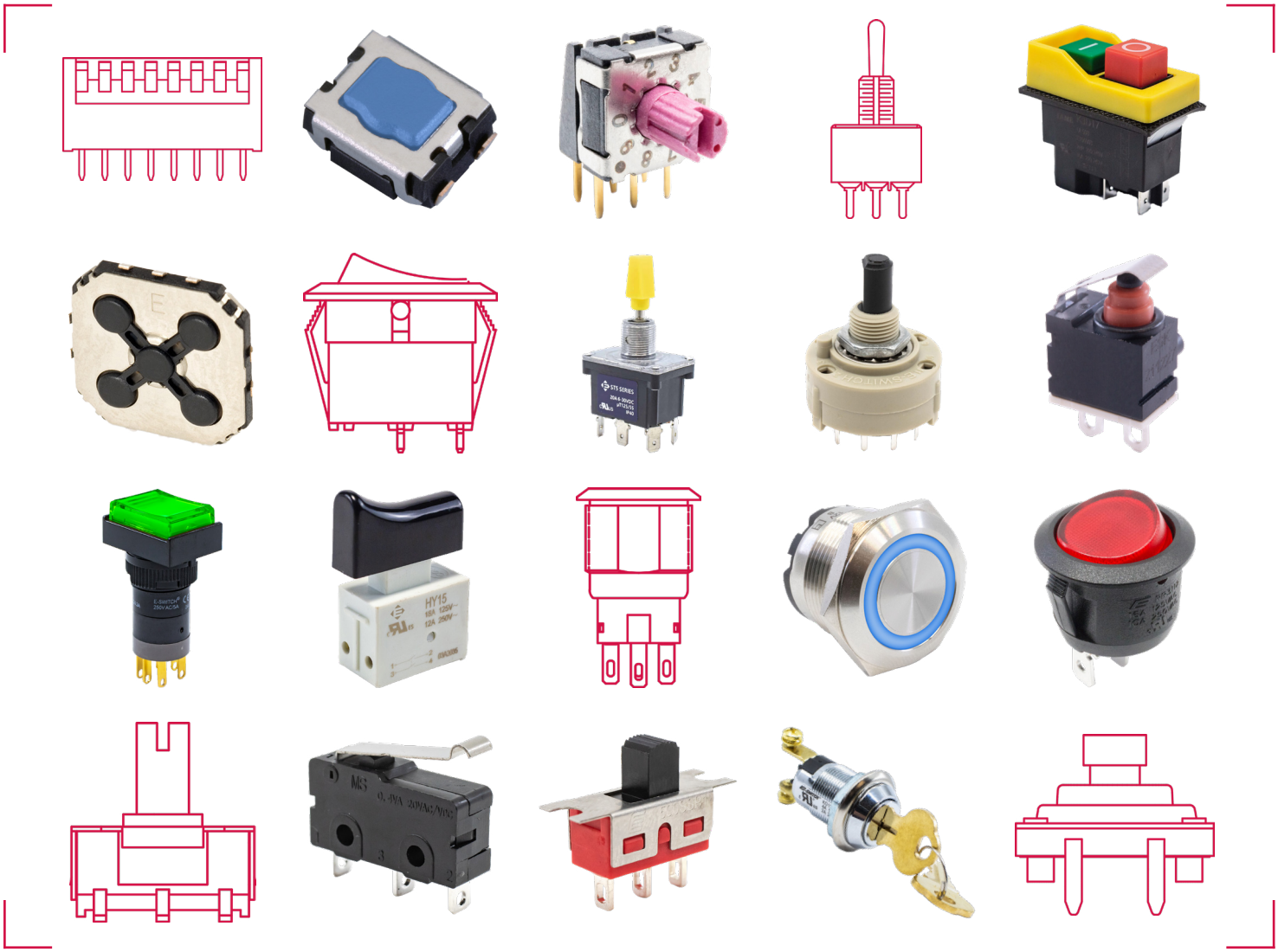
E·SWITCH®



# PRODUCT MATRIX

Providing premier electromechanical switches
and integrated solutions since 1979.

*ENERGIZING INNOVATION*

DIGITAL VERSION
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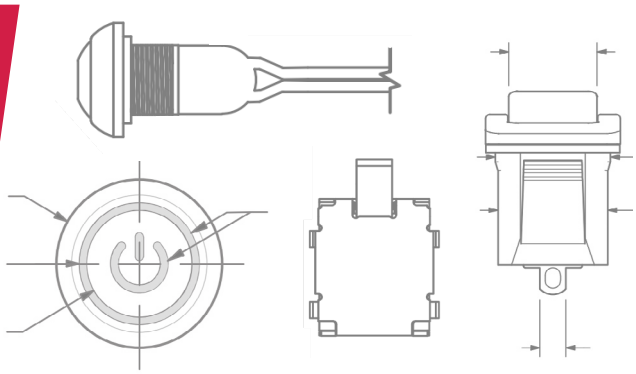
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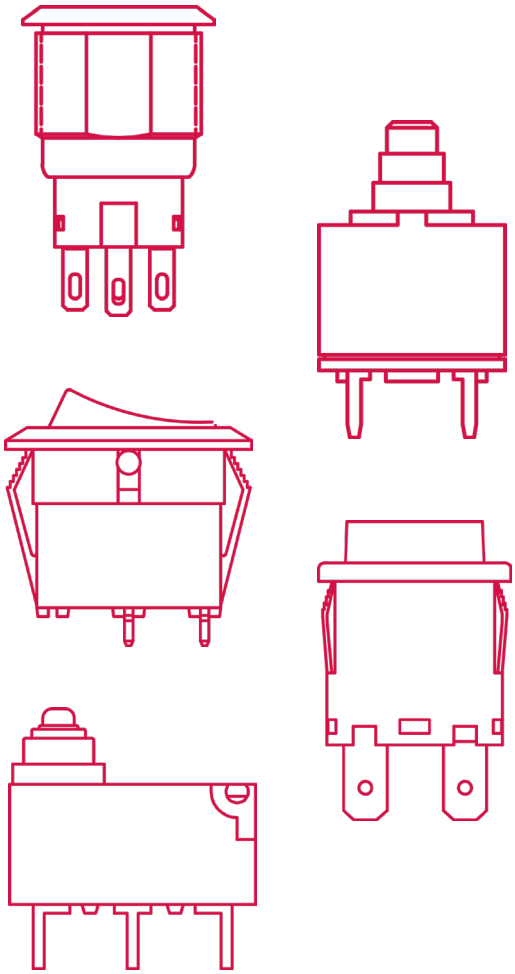
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# NEW PRODUCT INTRODUCTIONS





E-Switch is committed to responding to technological advancements and customer demand with the regular introduction of new products.

We've recently launched the TL3220 Series (RGB illuminated, SMT tact), LS25 Series (high current snap action switch), RP8700 Series (IP68, LED illuminated pushbutton) and RCA1913 Series (sealed, power rated rocker switch).

Additionally, E-Switch has a new line of connectors — the BIG RED CONNECTORS™ — for building custom wire assemblies tailored to your exact design specifications.

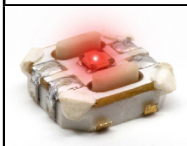
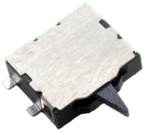
Here at E-Switch, we energize innovation all the way from prototyping to production!







# NEW PRODUCT INTRODUCTIONS

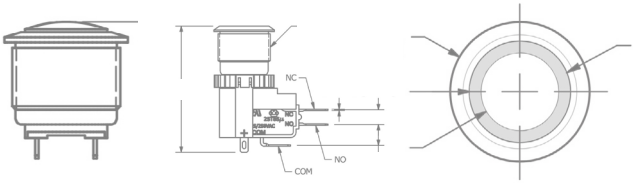
| E•SWITCH® | | ELECTRICAL RATINGS | CUTOUT | FUNCTIONS AVAILABLE | TERMINAL OPTIONS | ACTUATOR OPTIONS | MATERIAL OPTIONS | ILLUMINATION | IP RATING |
|---|---|---|---|---|---|---|---|---|---|
|  | **RP8700** | 125mA, 125VAC; 200mA, 50VDC | 13.6mm | SPST; Off-(On) or On-(Off) | Solder Lug<br>PC Pin<br>Wired w/ Connector | Round, high, or domed button; many color options | Nylon housing and actuator | Dot Illumination<br>White, Red, Yellow, Green, Blue, Red/Green | IP68 |
|  | **LS25** | 125/250VAC @ 25A | NA | SPDT | Solder Lug<br>Quick Connect (0.187" or 0.250") | Round Pin Plunger, Lever Straight, Lever Simulated Roller, Lever Roller | ✕ | ✕ | IP40 |
|  | **TL3220** | 12 VDC @ 50mA | NA | SPST | SMT (Gull Wing) | ✕ | Gold Flash over Phosphor Bronze Contacts | RGB | IP5X |
|  | **TL6059** | 12VDC @ 50mA | NA | SPST | PCB Pin | 4.30mm or 7.00mm Actuator Length | Silver Contacts | ✕ | IP67 |
|  | **TD1350** | 12A, GP/R, 125/250VAC, 50/60Hz, T105, 1E4<br>3A, GP/R, 125/250VAC, 50/60Hz, T105, 1E4 | 14.50mm | SPST | QC - 4.8mm<br>Solder Lug | Black or White Actuator | Silver Contacts | ✕ | IP40 |
|  | **PV16** | 5A 220VAC, 2A 24VDC | 16mm | SPDT DPDT | Solder, Wire Leads 300mm, Wire Leads 300mm w/ ECM Connector | Flat or High<br>Stainless Steel or Black Anodized | Stainless Steel or Black Anodized | Dot, Ring, Ring/Power Symbol Illumination<br>White, Red, Green, Blue, Yellow | IP67 |
|  | **PBA22** | 6A, 230VAC; 1.5A, 24VDC | 22mm | SPST, DPST, or DPST-NO/NC circuit; momentary function | Quick Connect 0.110″ Termination | Flat Round Flush<br>6 Color Options | ✕ | ✕ | IP65 |
|  | **TD1270** | 10mA @ 5VDC | NA | SPDT (On)-Off-(On) | Gull wing | Angled toggle detector<br>Two-way operating, auto return | Silver Plated Contacts | ✕ | IP40; not recommended for washing processes |
|  | **PVB7** | 5A, 250VAC UL; 2A, 24VDC | 22mm | SPDT or DPDT Momentary or Latching | Solder, wire leads 300mm, or wire leads 300mm w/ connector | Stainless Steel<br>Black Anodized | Stainless Steel or Black Anodized Finish<br>Silver or Gold Contacts | Ring<br>Ring/Power Symbol Combo | IP67 |

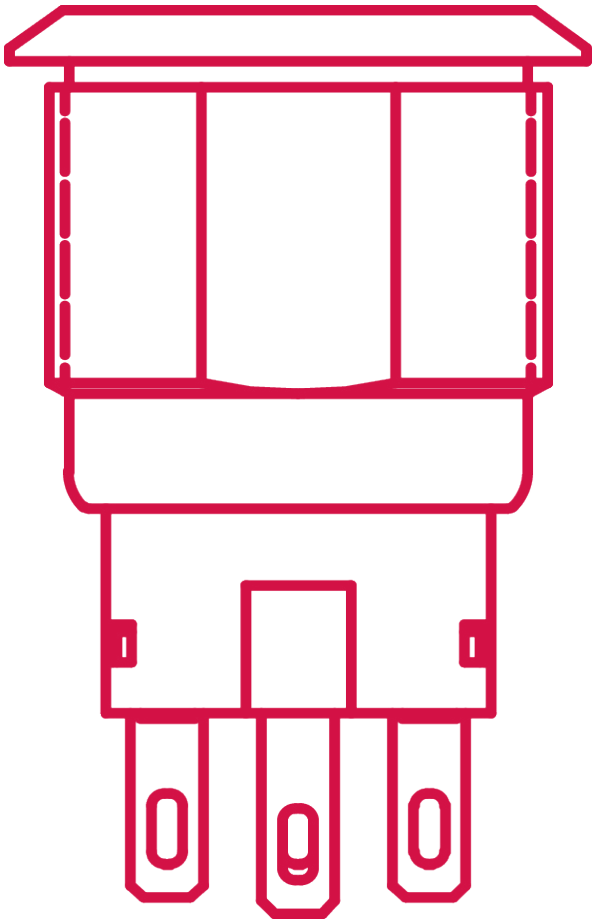
***Specifications subject to change without notice***

## DIGITAL VERSION

**Scan for latest updates**

# ANTI-VANDAL



E-Switch offers the largest selection of Anti-Vandal switches in the marketplace.

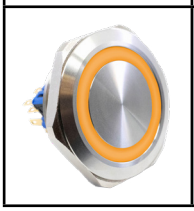
Sizes range from 6mm to 40mm in diameter, depending on the switch series. Anti-Vandals offer an aesthetically pleasing switch with quality housing materials and multi-illumination options in lens style (ring, dot, power symbol, ring/power symbol combo), as well as numerous choices in LED colors (including bi-color and RGB). An additional option is to order the switches pre-wired.

E-Switch's Anti-Vandal switches can be found in public kiosks, security controls, appliances, medical equipment and transport vehicles.





# ANTI-VANDAL | PART 1

| E-SWITCH® | | ELECTRICAL RATINGS | CUTOUT / PANEL DEPTH | FUNCTIONS AVAILABLE | TERMINAL OPTIONS | ACTUATOR OPTIONS | MATERIAL OPTIONS | ILLUMINATION | IP RATING | WIRE OPTIONS |
|---|---|---|---|---|---|---|---|---|---|---|
|  | **PV0** | 2A, 36VDC | **Diameter:** 12mm **Max. Depth:** 6mm | **1 Pole:** Off-(On) | Solder Lug | High | Stainless Steel Black Anodized | Dot Ring | IP65 | ✕ |
|  | **PV1** | 2A, 36VDC | **Diameter:** 19mm **Max. Depth:** 8mm | **1 Pole:** Off-(On) | Screw Solder Lug | Domed Flat High | Black Anodized Gold Plated Brass Nickel Plated Brass Stainless Steel | N/A | IP65 | ✕ |
|  | **PV2** | 2A, 36VDC | **Diameter:** 16mm **Max. Depth:** 6mm | **1 Pole:** Off-(On) | Screw Solder Lug | Domed Flat High | Black Anodized Gold Plated Brass Nickel Plated Brass Stainless Steel | N/A | IP65 | ✕ |
|  | **PV16** | 5A 220VAC, 2A 24VDC | **Diameter:** 16mm **Max. Depth:** 7mm | SPDT On-On SPDT On-(On) DPDT On-On DPDT On-(On) | Solder, Wire Leads, Wire Leads w/ ECM Connector | Flat High | Black Anodized Stainless Steel | Single or Bi-Color Dot Ring Ring/Power Symbol | IP67 | ● |
|  | **PV4** | 2A, 24VDC .7A 125VAC (cURus) | **Diameter:** 19mm **Max. Depth:** 11mm | **1 Pole:** On-On On-(On) 1P Off-(On) + 1P On-(Off) **2 Pole:** On-On On-(On) | Screw Solder Lug | Flat High | Black Anodized Stainless Steel | RGB Bi-Color Dot Ring Arrow | IP65 | ● |
|  | **PV5** | 2A, 36VDC | **Diameter:** 12mm **Max. Depth:** 5mm | **1 Pole:** Off-(On) | Screw Solder Lug | Raised Domed | Black Anodized Nickel Plated Brass Stainless Steel | N/A | IP65 | ✕ |
|  | **PV6** | 2A, 48VDC | **Diameter:** 16mm **Max. Depth:** 10mm | **1 Pole:** Off-(On) | Solder Lug | Flat High | Black Anodized Nickel Plated Brass Stainless Steel | RGB Bi-Color Dot Ring | IP65 | ✕ |
|  | **PV7** | 2A, 48VDC | **Diameter:** 22mm **Max. Depth:** 8mm (Momentary), 12mm (Maintained) | **1 Pole:** 1P Off-On + 1P On-Off 1P Off-(On) + 1P On-(Off) | Solder Lug | Flat | Black Anodized Nickel Plated Brass Stainless Steel | RGB Bi-Color Dot Ring | IP65 | ● |
|  | **PV8** | 2A, 48VDC | **Diameter:** 25mm **Max. Depth:** 10mm (Momentary), 12mm (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 Lug | Flat | Black Anodized Nickel Plated Brass Stainless Steel | Bi-Color Dot Ring | IP65 | ● |
|  | **PV9** | 2A, 48VDC | **Diameter:** 28mm **Max. Depth:** 10mm | **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 Lug | Flat | Nickel Plated Brass Stainless Steel | Bi-Color Dot Ring | IP66 | ● |
|  | **PV10** | 2A, 48VDC | **Diameter:** 40mm **Max. Depth:** 5mm | **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 Lug | Flat | Stainless Steel | Bi-Color Dot Ring | IP65 | ● |

***Specifications subject to change without notice***

# ANTI-VANDAL | PART 2

| E-SWITCH® | | ELECTRICAL RATINGS | CUTOUT / PANEL DEPTH | FUNCTIONS AVAILABLE | TERMINAL OPTIONS | ACTUATOR OPTIONS | MATERIAL OPTIONS | ILLUMINATION | IP RATING | WIRE OPTIONS |
|---|---|---|---|---|---|---|---|---|---|---|
|  | **CS4**<br>**CS7** | 1A @ 5-24VDC | **Diameter:**<br>19mm<br>22mm | SPST | 150mm Wire Leads with Connector | Flat | Aluminum, Clear Anodized | RGB<br>Ring or Power Symbol | ✕ | ● |
|  | **PMV6** | 2A @ 24VDC | **Diameter:**<br>22mm<br>**Max. Depth:**<br>1-11mm | SPDT, DPDT | Solder Lug<br><br>Wire Leads: 300mm | Flat | Plastic | None | IP65 | ● |
|  | **PVA6** | 2A,36VDC | **Diameter:**<br>16mm<br>**Max. Depth:**<br>6-8mm | **1 Pole:**<br>Off-(On) | Solder Lug Wire-Lead | Rounded Flat High | Black Anodized Clear Anodized Stainless Steel Brushed Stainless Steel | Ring Power Symbol | IP67 | ● |
|  | **PVB3** | 2A, 24VDC<br>0.5A, 220VAC | **Diameter:**<br>16mm | SPDT<br>On-(On)<br>On-On | Solder Lug | Flat High | Stainless Steel Black Anodized | Ring<br>Ring/Power Symbol Combo | IP65 | ● |
|  | **PVB7** | 5A, 250VAC UL;<br>2A, 24VDC | **Diameter:**<br>22mm | SPDT or DPDT Momentary or Latching | Solder, wire leads 300mm, or wire leads 300mm w/ connector | Stainless Steel<br><br>Black Anodized | Stainless Steel or Black Anodized Finish<br><br>Silver or Gold Contacts | Ring<br>Ring/Power Symbol Combo | IP67 | ● |
|  | **PVHC4** | 20A, 250VAC<br>25A, 30VDC | **Diameter:**<br>19mm | SPST<br>Off-On<br>Off-(On) | Solder Lug | Flat High | Stainless Steel Black Anodized | Ring<br>Ring/Power Symbol Combo | IP67 | ● |
|  | **PVHC7** | 20A @ 250VAC | **Diameter:**<br>22mm | SPST (Momentary or Latching) | Solder Lug | Stainless Steel<br><br>Black Anodized | Stainless Steel<br><br>Black Anodized | Ring<br><br>Ring & Power Symbol<br><br>White, Red, Green, Blue, Yellow | IP67 | ● |
|  | **PVK4** | 2A, 24VDC | **Diameter:**<br>19mm<br>**Max. Depth:**<br>10.0mm | **SPDT**<br>ON-ON<br>ON-(ON)<br><br>**DPDT**<br>ON-ON-ON<br>(ON)-ON-(ON) | Solder Lug | Flat | Stainless Steel | None<br><br>Selector Arrow | IP40<br>IP65 | ✕ |
|  | **PVL** | ✕ | **Diameter:**<br>6-19mm<br>**Max. Depth:**<br>6mm to 10mm (depending on mounting diameter) | ✕ | Solder Lug<br><br>Wire leads: 150mm | Flat | Stainless Steel<br><br>Black | Pilot Lamp | IP67 | ● |
|  | **PVS7** | 2A @ 24VDC | **Diameter:**<br>22mm<br>**Max. Depth:**<br>1-11mm | SPDT, DPDT | Solder Lug<br><br>Wire Leads: 300mm | Flat | Stainless Steel | RGB<br>Ring | IP65 | ● |
|  | **PVT4** | 50mA,24VDC | **Diameter:**<br>19mm<br>**Max. Depth:**<br>6mm | **1 Pole:**<br>Off-(On) | Solder Lug<br><br>Wire Lead | Flat | Stainless Steel | Ring | IP65 | ● |
|  | **PZ** | 1A@5-24VDC | **Diameter:**<br>16mm - 22mm<br>**Max. Depth:**<br>10mm | Momentary Pulse | 150mm Wire Lead<br><br>300mm Wire Lead | Concave Flat | Stainless Steel Black Anodized | RGB<br>Ring | IP68 | ● |

***Specifications subject to change without notice***

# ANTI-VANDAL | PART 3

| E-SWITCH® | | ELECTRICAL RATINGS | CUTOUT / PANEL DEPTH | FUNCTIONS AVAILABLE | TERMINAL OPTIONS | ACTUATOR OPTIONS | MATERIAL OPTIONS | ILLUMINATION | IP RATING | WIRE OPTIONS |
|---|---|---|---|---|---|---|---|---|---|---|
|  | **SAV4** | 15A @ 125/250VAC | **Diameter:** 19mm **Max. Depth:** 1-11mm | **1 Pole:** 1P - ON - ON, 1P ON - (ON) Momentary | 4.8 mm Quick Connect | Flat | Stainless Steel, Black Anodized | Non-illuminated, Dot, Ring, Power Symbol, Ring/Power Symbol Combo | IP67 | ✕ |
|  | **SAV7** | 15A @ 125/250VAC | **Diameter:** 22mm **Max. Depth:** 1-11mm | **1 Pole:** 1P - ON - ON, 1P ON - (ON) Momentary | 4.8 mm Quick Connect | Flat | Stainless Steel, Black Anodized | Non-illuminated, Ring, Ring/Power Symbol Combo | IP67 | ✕ |
|  | **SAV8** | 15A @ 125/250VAC | **Diameter:** 25mm **Max. Depth:** 1-11 mm | **1 Pole:** 1P - ON - ON, 1P ON - (ON) Momentary | 4.8 mm Quick Connect | Flat | Stainless Steel, Black Anodized | Non-illuminated, Ring, Ring/Power Symbol Combo | IP67 | ✕ |
|  | **SV4** | 2A 2 36VDC | **Diameter:** 19mm **Max. Depth:** 1-6mm | **1 Pole:** SPST 1P OFF - (ON) | Solder Lug Wire Leads: 500mm | Flat | Stainless Steel | Ring, Ring/Power Symbol Combo | IP67 | ● |
|  | **SV7** | 2A 2 36VDC | **Diameter:** 22mm **Max. Depth:** 1-6mm | **Pole:** SPST 1P OFF - (ON) | Solder Lug Wire Leads: 500mm | Flat | Stainless Steel | Ring, Ring/Power Symbol Combo | IP67 | ● |
|  | **SV8** | 2A 2 36VDC | **Diameter:** 25mm **Max. Depth:** 1-6mm | **1 Pole:** SPST 1P OFF - (ON) | Solder Lug Wire Leads: 500mm | Flat | Stainless Steel | Ring, Ring/Power Symbol Combo | IP67 | ● |

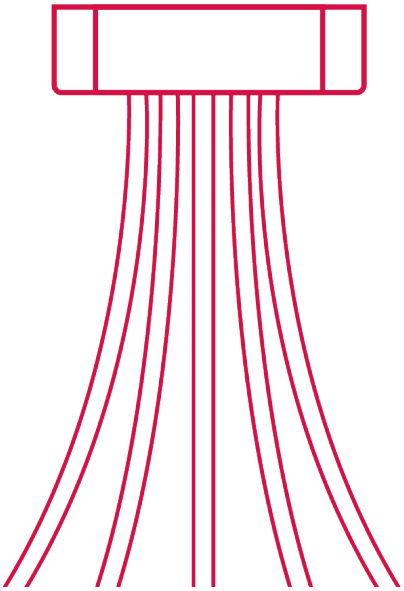
## UL CERTIFIED

| E-SWITCH® | | ELECTRICAL RATINGS | CUTOUT / PANEL DEPTH | FUNCTIONS AVAILABLE | TERMINAL OPTIONS | ACTUATOR OPTIONS | MATERIAL OPTIONS | ILLUMINATION | IP RATING | WIRE OPTIONS |
|---|---|---|---|---|---|---|---|---|---|---|
|  | **ULV4** | 3A 125/250VAC (cURus) | **Diameter:** 19mm **Max. Depth:** 10mm | **1 Pole:** On-On On-(On) **2 Pole:** On-On On-(On) | **Solder Lug** **Wire Leads:** 300mm **Detachable Socket** Wire Leads 500mm **Molded Boot** Wire Leads: 500mm | Flat | Black Anodized Nickel Plated Brass Stainless Steel | Bi-Color Dot Ring Power | IP67 | ● |
|  | **ULV7** | 3A 125/250VAC (cURus) | **Diameter:** 22mm **Max. Depth:** 10mm | **1 Pole:** On-On On-(On) **2 Pole:** On-On On-(On) | **Solder Lug** **Wire Leads:** 300mm **Detachable Socket** Wire Leads 500mm **Molded Boot** Wire Leads: 500mm | Flat | Anodized Aluminum Stainless Steel | Bi-Color Ring Ring w/ Power | IP67 | ● |
|  | **ULV8** | 3A 125/250VAC (cURus) | **Diameter:** 25mm **Max. Depth:** 10mm | **1 Pole:** On-On On-(On) **2 Pole:** On-On On-(On) | **Solder Lug** **Wire Leads:** 300mm **Detachable Socket** Wire Leads 500mm **Molded Boot** Wire Leads: 500mm | Flat | Black Anodized Stainless Steel | Ring Bi-color | IP67 | ● |

***Specifications subject to change without notice***

# Get Wired with E-Switch

E-Switch offers several terminal options which will enhance your production line and your bottom line. Selecting the right terminal option for your product assembly process will provide time and costs savings from:

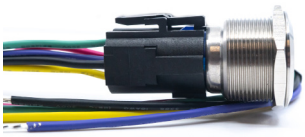
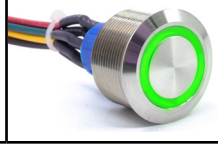


- No need to second-source wire leads and assembly house.
- Reduce labor cost by ordering your switches pre-wired before arrival on your manufacturing floor.
- Decrease product assembly time with the ease of installing behind the panel.

The Anti-Vandal switch (aka Vandal-Resistant, Vandal-Proof, Tamper-Resistant or Tamper Proof) was designed to be installed in devices that are susceptible to harsh use, vandalism and theft, as well as to withstand extreme temperatures and to be resistant to dust and moisture. The wired options are color-coded for convenience and are compatible with a variety of connectors.

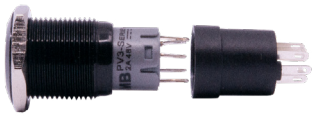
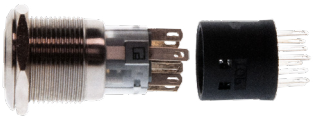
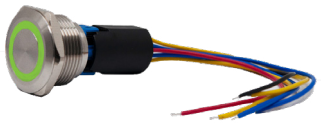
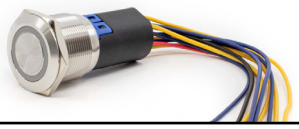
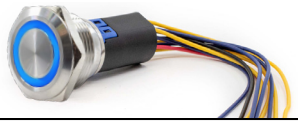
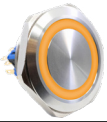
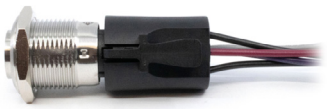
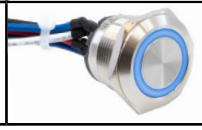
Visit ***e-switch.com*** for more information on our wired options

**TERMINAL OPTIONS:**
**ANTI-VANDAL SERIES ULV**

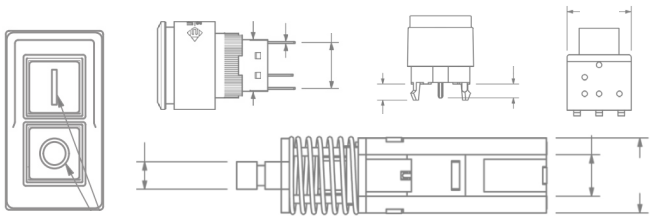
| ANTI-VANDAL SERIES | SOLDER LUG | TERMINAL OPTION W WIRE LEADS ATTACHED 300MM LONG | TERMINAL OPTION M MOLDED PROTECTIVE BOOT WITH WIRE LEADS | TERMINAL OPTION P DETACHABLE SOCKET WITH WIRE LEADS |
|---|---|---|---|---|
| ULV4 |  |  |  |  |
| ULV7 |  |  |  |  |
| ULV8 |  |  |  |  |

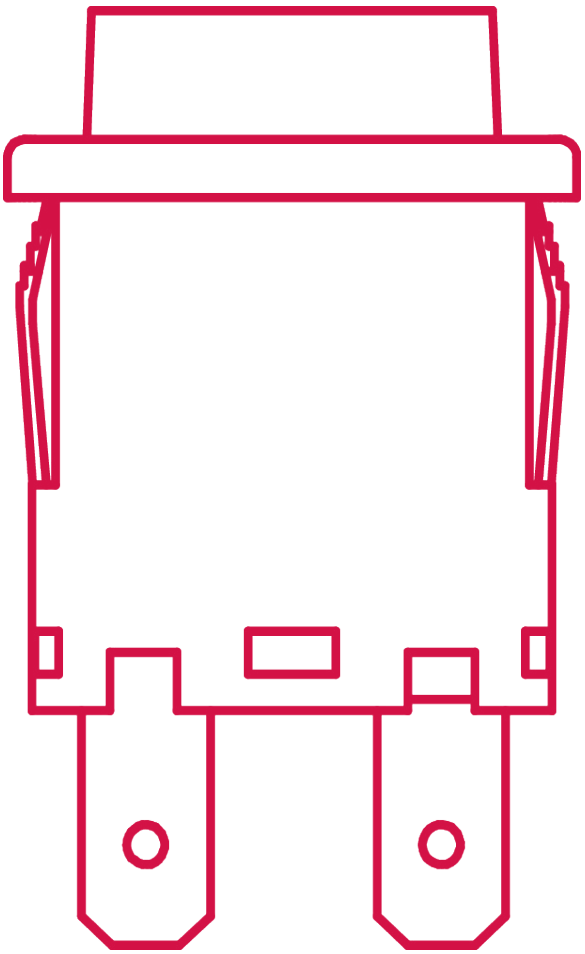
# ANTI-VANDAL | TERMINAL OPTIONS - PART 2

**TERMINAL OPTIONS:**
**ANTI-VANDAL SERIES PV**

| ANTI-VANDAL SERIES | SOLDER LUG | WIRE LEADS ATTACHED 300MM LONG | PVP DETACHABLE SOCKET WITH SOLDER LUG | PVP DETACHABLE SOCKET WITH WIRE LEADS |
|---|---|---|---|---|
| PV3 |  |  |  |  |
| PV4 |  |  |  |  |
| PV6 |  |  | ✕ | ✕ |
| PV7 |  |  |  |  |
| PV8 |  |  | ✕ |  |
| PV9 |  |  | ✕ |  |
| PV10 |  |  | ✕ |  |
| PVB3 |  | ✕ | ✕ |  |
| PVHC4 |  |  | ✕ | ✕ |
| PVHC7 |  |  | ✕ | ✕ |

# PUSHBUTTON





Pushbutton switches open or close an electrical circuit by pressing or, in some cases, pulling on the actuator. Deciding on the size, style and functionality of the pushbutton is often determined by the application.

E-Switch offers a wide range of pushbutton switches, from miniature size with low current ratings to industrial use switches with high power and horsepower ratings. Several pushbutton switches provide an IP rating of IP54, IP65 or IP67, depending on the switch series.

With E-Switch, the possibilities of shapes and styles are endless. Shape options include square, round, oval and rectangle, while some switches offer caps. Multiple termination options are available within the pushbutton family: solder lug, PCB pin, right angle PCB pins, vertical PCB pins, surface mount, socket and tab.







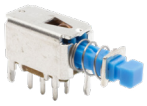


# PUSHBUTTON | PART 1 - SUBMINIATURE

| E-SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | TRAVEL | POLES / THROWS / FUNCTIONS | BUSHING OPTIONS | TERMINAL OPTIONS | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|---|
|  | **700** | **Life Cycles:** 50,000<br>**Operating Force:** 200gf<br>**Operating Temperature:** -30°C to 85°C<br>**Contact Resistance:** 20mΩ Max.<br>**Insulation Resistance:** 1,000MΩ Min. | **Silver:** 3A, 120VAC [cURus] 3A, 28VDC 1A, 250VAC [cURus]<br>**Gold:** 0.4VA, Max. 20V (AC or DC) | 1.0mm | **SPDT:** On-(On)<br>**DPDT:** On-(On) | Flat Non-Threaded<br>Flat Threaded<br>Keyway Non-Threaded<br>Keyway Threaded | Right Angle PCB Pin<br>Solder Lug<br>Vertical PCB Pin<br>Vertical PCB Pin with Bracket<br>Wire Wrap | ✕ |
|  | **700A** | **Life Cycles:** 50,000<br>**Operating Force:** 300gf<br>**Operating Temperature:** -30°C to 85°C<br>**Contact Resistance:** 20mΩ Max.<br>**Insulation Resistance:** 1,000MΩ Min. | **Silver:** 3A, 120VAC [cURus] 3A, 28VDC 1A, 250VAC [cURus]<br>**Gold:** 0.4VA, Max. 20V (AC or DC) | 1.0mm | **SPDT:** On-(On)<br>**DPDT:** On-(On | Non-Threaded<br>Threaded | Right Angle PCB Pin<br>Solder Lug<br>Vertical PCB Pin<br>Vertical PCB Pin with Bracket | IP67 |
|  | **700C** | **Life Cycles:** 50,000<br>**Operating Force:** 400gf SP7, 600gf DP7<br>**Operating Temperature:** -30°C to 85°C<br>**Contact Resistance:** 20mΩ Max.<br>**Insulation Resistance:** 1,000MΩ Min. | **Silver:** 3A, 120VAC [cURus] 3A, 28VDC 1A, 250VAC [cURus]<br>**Gold:** 0.4VA, Max. 20V (AC or DC) | 3.0mm | **SPDT:** On-On | Flat Non-Threaded<br>Flat Threaded<br>Keyway Non-Threaded<br>Keyway Threaded | Right Angle PCB Pin<br>Solder Lug<br>Vertical PCB Pin<br>Vertical PCB Pin with Bracket | ✕ |
|  | **800** | **Life Cycles:** 50,000<br>**Operating Force:** 200gf<br>**Operating Temperature:** -30°C to 85°C<br>**Contact Resistance:** 10mΩ Max.<br>**Insulation Resistance:** 1,000MΩ Min. | **Silver:** 3A, 120VAC [cURus] 3A, 28VDC 1A, 250VAC [cURus]<br>**Gold:** 0.4VA, Max. 20V (AC or DC) | 0.9mm | **SPST** Off-(On)<br>**SPDT** On-(On) | Flat Non-Threaded<br>Flat Threaded<br>Non-Threaded | Right Angle PCB Pin<br>Solder Lug<br>Right Angle PCB Pin with Bracket<br>Vertical PCB Pin<br>Vertical PCB Pin with Bracket | ✕ |
|  | **800A** | **Life Cycles:** 50,000<br>**Operating Force:** 200gf<br>**Operating Temperature:** -30°C to 85°C<br>**Contact Resistance:** 10mΩ Max.<br>**Insulation Resistance:** 1,000MΩ Min. | **Silver:** 3A, 120VAC or 28VDC [cURus] 1A, 250VDC<br>**Gold:** 0.4VA, Max. 20V (AC or DC) | 0.9mm | **SPST** Off-(On)<br>**SPDT** On-(On) | Non-Threaded | Right Angle PCB Pin<br>Vertical PCB Pin | IP67 |
|  | **800B** | **Life Cycles:** 50,000<br>**Operating Force:** 200gf<br>**Operating Temperature:** -30°C to 85°C<br>**Contact Resistance:** 20mΩ Max.<br>**Insulation Resistance:** 1,000MΩ Min. | **Gold:** 0.4VA, Max. 20V (AC or DC) | 0.9mm | **SPST** Off-(On)<br>**SPDT** On-(On) | Non-Threaded | Surface Mount | ✕ |
|  | **800C** | **Life Cycles:** 6,000<br>**Operating Force:** 350gf<br>**Operating Temperature:** -30°C to 85°C<br>**Contact Resistance:** Silver: 50mΩ Max initial Gold: 20mΩ Max initial<br>**Insulation Resistance:** 1,000MΩ Min. | **Silver:** 3A, 120VAC or 28VDC 1A, 250VAC<br>**Gold:** 0.4VA, Max. 20V (AC or DC) | Electrical Make: 1.34mm<br>Full travel: 1.88mm | **SPDT** On-On | Right Angle PCB Pin<br>Solder Lug<br>Vertical PCB Pin | ✕ | ✕ |
|  | **800U** | **Life Cycles:** 6,000<br>**Operating Force:** 250gf<br>**Operating Temperature:** -30°C to 85°C<br>**Contact Resistance:** 100mΩ Initial<br>**Insulation Resistance:** 500MΩ Min. | **Gold:** 0.4VA, Max. 20V (AC or DC) | 1.0mm | **SPDT** On-(On)<br>**DPDT** On-(On) | Non-Threaded | PC thru-hole<br>Right Angle, PC thru-hole<br>Vertical Right angle, PC thru-hole | IP67 |
|  | **TL2233** | **Life Cycles:** 10,000 Cycles<br>**Operating Temp:** -10°C to 60°C<br>**Contact Resistance:** : 100mΩ Max. (Initial)<br>**Insulation Resistance:** 10MΩ Min. at 100VDC | 100mA @ 30VDC | 1.90mm | DPDT | Non-Threaded | SMT<br>Gull Wing | IP67 |

***Specifications subject to change without notice***

# PUSHBUTTON | PART 2 - PCB MOUNT

| E-SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | OPERATING FORCE | TRAVEL | POLES / THROWS | MOUNTING OPTIONS | TERMINAL OPTIONS | ILLUMINATION | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|---|---|---|
|  | **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 | ✕ |
|  | **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 3000gfv | 2.7mm to 5.0mm | SPDT DPDT 3PDT | PCB Panel Mount | PCB Pin Solder Lugs | ✕ | ✕ |
|  | **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 | ✕ | ✕ |
|  | **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 | ✕ | ✕ |
|  | **LP11** | **Life Cycles:** 1,000,000 **Operating Temperature:** -40°C to 85°C **Contact Resistance:** 200mΩ Max. **Insulation Resistance:** 100MΩ Min. | 100mA, 12VDC | 160(M) 200(L) | 4.5mm (M) 3.5mm (L) | SPST | PCB | PCB Pin | RGB Full | ✕ |
|  | **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 | ✕ |
|  | **LP16** | **Life Cycles:** 50,000,000 **Operating Temperature:** -5°C to 60°C **Contact Resistance:** 150mΩ Max. **Insulation Resistance:** 10MΩ Min. | 100mA, 20VDC | 250gf | 3.3mm | SPST | PCB | PCB Pin | Full | ✕ |
|  | **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 | ✕ |
|  | **LP37** | **Life Cycles:** 30,000 **Operating Temperature:** -30°C to 85°C **Contact Resistance:** 50mΩ Max. **Insulation Resistance:** 1,000MΩ Min. at 100VDC | 20mVDC to 50VDC; 10mA to 250mA | 250gf ± 100gf | Full: 5.1mm ± 0.5mm; | SPDT | PCB | PCB Pin | Full | ✕ |

***Specifications subject to change without notice***

# PUSHBUTTON | PART 3 - PCB MOUNT

| E•SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | OPERATING FORCE | TRAVEL | POLES / THROWS | MOUNTING OPTIONS | TERMINAL OPTIONS | ILLUMINATION | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|---|---|---|
|  | **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 | ✕ |
|  | **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 | RGB Full | ✕ |
|  | **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 | ✕ | ✕ |
|  | **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 | ✕ | ✕ |
|  | **PB350** | **Life Cycles:** 20,000 **Operating Temperature:** -40°C to 85°C **Contact Resistance:** 50mΩ Max. Initial **Insulation Resistance:** 10GΩ Min. @ 1000VDC | 30mA @ 28 VDC | ST: 490 grams DT: 1st Position: 600 grams DT: 2nd Position: 1150 grams | 2.0mm | SPST Double Action | PCB | PCB Pin | LED: Red, White, Yellow, Blue, Green | ✕ |
|  | **PB400** | **Life Cycles:** 6,000 Cycles **Operating Temperature:** -5°C to 60°C **Contact Resistance:** 30mΩ Max. **Insulation Resistance:** 500MΩ Min.v | 3A, 30VDC | 3N-7N | 1.8-3.2mm | DPST | PCB | PCB Pin | ✕ | ✕ |
|  | **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 | ✕ | ✕ |
|  | **TL2202** | **Life Cycles:** 10,000 **Contact Resistance:** 100mΩ Max. **Insulation Resistance:** 100MΩ Min. | 100mA 30VDC | 220gf | 2.5mm | DPDT | PCB | PCB Pin | ✕ | ✕ |
|  | **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 | ✕ | ✕ |

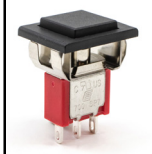
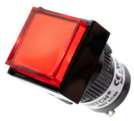
***Specifications subject to change without notice***

# PUSHBUTTON | PART 4 - PCB MOUNT

| E•SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | OPERATING FORCE | TRAVEL | POLES / THROWS | MOUNTING OPTIONS | TERMINAL OPTIONS | ILLUMINATION | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|---|---|---|
|  | 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 | ✕ |
|  | 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 | ✕ | ✕ |
|  | 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 | ✕ | ✕ |
|  | ULP | **Life Cycles:** 200,000 Cycles **Operating Temperature:** -40°C to 85°C **Contact Resistance:** 50mΩ Silver, 100mΩ Gold **Insulation Resistance:** 100MΩ at 500VDC | Gold: 0.1A Max. @ 28VDC; Silver: 0.5A @ 25VDC; 0.2A @ 250VAC | SPDT: 200gf ± DPDT: 300gf | 2.20mm | SPDT PDT | PCB Panel Mount | PCB Pin Solder Lug | RGB Full | ✕ |
|  | 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 | ✕ |

***Specifications subject to change without notice***

# PUSHBUTTON | PART 5 - PANEL MOUNT

| E-SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | OPERATING FORCE | TRAVEL | POLES / THROWS / FUNCTIONS | PANEL CUTOUT DIMESNIONS | TERMINAL OPTIONS | ILLUMINATION | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|---|---|---|
|  | **700** | **Life Cycles:** 50,000<br>**Operating Force:** 200gf<br>**Operating Temperature:** -30°C to 85°C<br>**Contact Resistance:** 20mΩ Max.<br>**Insulation Resistance:** 1,000MΩ Min. | **Silver:**<br>3A, 120VAC [cURus]<br>3A, 28VDC<br>1A, 250VAC [cURus]<br><br>**Gold:**<br>0.4VA, Max. 20V (AC or DC | 200gf | 1.0mm | **SPDT:**<br>On-(On)<br><br>**DPDT:**<br>On-(On) | 12.7mm x 15.7mm | Quick Connect Solder Lug | ✕ | ✕ |
|  | **D16** | **Electrical / Mechanical Life:**<br>50,000 / 100,000 Cycles<br>**Operating Temperature:** -20°C to 55°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 1,000MΩ Min. | 8A, 125VAC [cURus, CSA]<br><br>6A, 24VDC [cURus, CSA] | 300gf | 3.0mm | **SPDT, DPDT, 3PDT, 4PDT**<br>On-On<br>On-(On) | 16mm Diameter | Solder Lug | Full | ✕ |
|  | **KJD17** | **Electrical Life**<br>10,000 Cycles<br>**Operating Temperature:** -25°C to 55°C<br>**Contact Resistance:** 50mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. at 500VDC | 16A 120VAC [cURus UL508]<br>16A 220/240VAC [cURus UL508]<br>1/2 HP 120VAC [cURus UL508]<br>2HP 220/240VAC [cURus UL508] | N/A | N/A | Off-On<br><br>Off-On w/Remote Trip<br><br>NO+NC w/Remote Trip | 46mm x 22mm | Silver Plated Brass | ✕ | IP54 with PVC Cap |
|  | **KJE32** | **Electrical Life**<br>10,000 Cycles<br>**Operating Temperature:** -20°C to 85°C<br>**Contact Resistance:** < 50mOhms<br>**Insulation Resistance:** Min 100MOhms | 20(20)A 250VAC 1E5 T85/55 TUV(EN61058), 20(20)A 127VAC 1E5 T85/55 TUV(EN61058), 20(20)A 127VAC 1E5 T85/55 UL(EN61058), 25.1A 60VDC 10E4 T85/55 UL(EN61058) | Green Button: 25N+/-5N;<br><br>Red Button: 10N +/-5N | Green Button: 4.7 +/-.3mm;<br><br>Red Button: 2.3 +/-.3mm | 2NO, 2NO w/ remote trip, NO + NC w/ remote trip, NO + NC, 2NO + NC, 2NO + NC w/ remote trip | 46mm x 22mm x 2.5mm | Silver Plated Brass | ✕ | IP55 |
|  | **L16** | **Operating Temperature:** -25°C to 55°C | N/A | N/A | N/A | Signal Light | 16mm Diameter | Solder Lug | Full<br><br>Signal Light | ✕ |
|  | **LA** | **Electrical / Mechanical Life:**<br>50,000 / 100,000 Cycles<br>**Operating Temperature:** -20°C to 55°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 1,000MΩ Min. | 8A, 125VAC [cURus]<br>5A, 250VAC [cURus]<br>2A, 250VDC [cURus]<br>6A, 24VDC [cURus] | 300gf | 3.0mm | **SPDT, DPDT, 3PDT, 4PDT**<br>On-On<br>On-(On) | 22mm Diameter<br>25.5mm Diameter<br>30.5mm Diameter | Socket Solder Tab | Full<br><br>Signal Light | IP65 |
|  | **LB22** | **Electrical / Mechanical Life:**<br>500,000 Cycles<br>1,000,000 Cycles<br>**Operating Temperature:** -20°C to 55°C<br>**Contact Resistance:** 50mΩ Max. @1A 12VDC<br>**Insulation Resistance:** 1,000 MΩ Min. @ 500VDC | 3A @ 250VAC | **SPDT:**<br>2.5±1N<br>;<br>**DPDT:**<br>3.5±1N | 3.20mm | **SPDT , DPDT**<br>ON-ON<br>ON-(ON) | 22mm Diameter | Solder Lug | Full<br><br>Power Symbol | IP65 |
|  | **LP1** | **Electrical / Mechanical Life:**<br>50,000 / 50,000 Cycles<br>**Operating Temperature:** -40°C to 85°C<br>**Contact Resistance:** 50mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 100mA, 30VDC | 250gf | 1.8mm | **SPST**<br>Off-(On) | 8mm Diameter | Solder Lug | Full | ✕ |
|  | **P16** | **Electrical / Mechanical Life:**<br>50,000 / 100,000 Cycles<br>**Operating Temperature:** -20°C to 55°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 1,000MΩ Min. | 8A, 125VAC cURus<br>6A, 24VDC | 300gf | 3.0mm | **SPDT, DPDT, 3PDT, 4PDT**<br>On-On<br>On-(On) | 16mm Diameter | Socket | Full | ✕ |

***Specifications subject to change without notice***

# PUSHBUTTON | PART 6 - PANEL MOUNT

| E·SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | OPERATING FORCE | TRAVEL | POLES / THROWS / FUNCTIONS | PANEL CUTOUT DIMESNIONS | TERMINAL OPTIONS | ILLUMINATION | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|---|---|---|
|  | **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 | ✕ | ✕ |
|  | **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] | 300gf to 800gf | 2.8mm | **SPST** Off-On Off-(On) **DPST** Off-On Off-(On) | 13mm x 19.2mm | Tab | Full | ✕ |
|  | **PB2** | **Electrical / Mechanical Life:** 6,000 / 50,000 Cycles **Operating Temperature:** -20°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 |
|  | **PB66** | **Electrical Life:** 50,000 Cycles **Operating Temperature:** 0°C to 55°C **Contact Resistance:** 50mΩ Max. **Insulation Resistance:** 2MΩ MIN @ 500VDC | 16(16)A 127VAC, UL | 13N | 1.5mm (Operating) 4.5mm (Lock Off) **Total:** 6mm | **DPST** Off-On Latching | 25mm Diameter | Tab | Power Symbol Illuminated | IP66 |
|  | **PBA22** | **Electrical Life:** 500,000 Cycles **Operating Temperature:** -25°C to 65°C **Contact Resistance:** 50mΩ Max. **Insulation Resistance:** 100mΩ Min. | 6A, 230VAC; 1.5A, 24VDC | 9.1 - 9.5 Nm | 5.3mm | **SPST, DPST,** or DPST-NO/ NC circuit; momentary function | 22mm Diameter | Quick Connect 0.110" | ✕ | IP65 |
|  | **PP1** | **Electrical / Mechanical Life:** 6,000 / 50,000 Cycles **Operating Temperature:** 0°C to 85°C **Contact Resistance:** 50mΩ 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** $On_2$-$On_1$-($On_2$) Push-Pull On-(On) | 13.3mm x 28.2mm | Tab | ✕ | ✕ |
|  | **PP2** | **Electrical / Mechanical Life:** 6,000 / 50,000 Cycles **Operating Temperature:** 0°C to 85°C **Contact Resistance:** 50mΩ 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** $On_2$-$On_1$-($On_2$) Push-Pull On-(On) | 13.5mm x 36mm | Tab | ✕ | ✕ |
|  | **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) | 16mm Diameter | Solder Lug | Full | ✕ |

***Specifications subject to change without notice***

# PUSHBUTTON | PART 7 - PANEL MOUNT

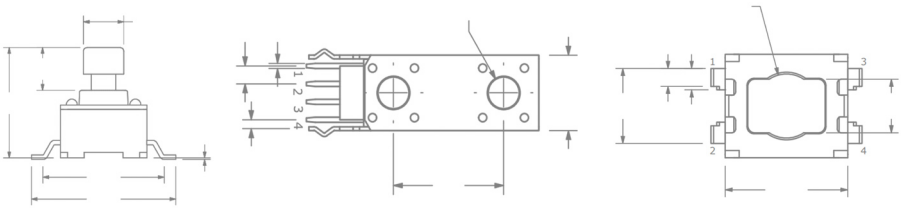
| E·SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | OPERATING FORCE | TRAVEL | POLES / THROWS / FUNCTIONS | PANEL CUTOUT DIMENSIONS | TERMINAL OPTIONS | ILLUMINATION | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|---|---|---|
|  | **RP8100** | **Electrical / Mechanical Life:** 500,000 Cycles **Operating Temperature:** -30°C to 85°C **Contact Resistance:** 50mΩ Max. **Insulation Resistance:** 1,000MΩ Min. | 125mA, 125 VAC 100mA, 50 VDC | 350gf | 1.5mm | **SPST** Off-(On) | 13.6mm Diameter | Solder Lug<br>Wire Leads | 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 Lug | Dot | IP67 |
|  | **RP8300** | **Electrical / Mechanical Life:** 500,000 Cycles **Operating Temperature:** -30°C to 85°C **Contact Resistance:** 50mΩ Max. **Insulation Resistance:** 1,000MΩ Min. | 200mA, 50VDC | 350gf | 1.5mm | **SPST** Off-(On) | 13.6mm Diameter | Solder Lug | 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. | 200mA, 50VDC | 350gf | **1.5mm** | **SPST** Off-(On) | 13.6mm Diameter | Solder Lug | 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 | **SPST** Off-(On) | Solder Lug | 13.6mm Diameter | Solder Lug | 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 Lug | ✕ | IP67 |
|  | **RP8700** | **Electrical / Mechanical Life:** 500,000 / 1,000,000 Cycles **Operating Temperature:** -30°C to 85°C **Contact Resistance:** 50mΩ Max. **Insulation Resistance:** 1GΩ min/500V | 125mA, 125VAC; 200mA, 50VDC | 3-6N | 1.5mm | SPST; Off-(On) or On-(Off) | 13.6mm Diameter | Solder Lug<br>PC Pin<br>Wired w/ Connector | Dot | IP68 |

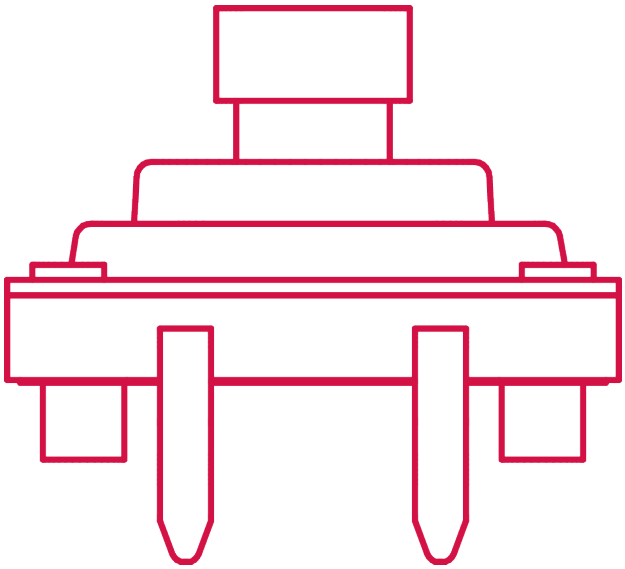
## EMERGENCY STOP

| E·SWITCH® | | ELECTRICAL RATINGS | CUTOUT | FUNCTIONS AVAILABLE | TERMINAL OPTIONS | ACTUATOR OPTIONS | MATERIAL OPTIONS | ILLUMINATION | IP RATING | DESIGN |
|---|---|---|---|---|---|---|---|---|---|---|
|  | **E100** | 3A @ 125VAC, 1.5A @ 250VAC 0.22A @ 125VDC, 0.11A @ 250VDC | **Diameter:** 16mm | 1NC, 1NC+1NO, 1NC/1NC | Solder Lug (Terminal Shroud) | Illuminated or Non-Illumi-nated | Silver Contacts | No Lamp Neon LED Incandescent | IP65 | Pushlock Turn Design |
|  | **E200** | 200mA @ 250VDC 5A @ 250VAC [VDE] 6A @24 VDC 8A @ 125VAC | **Diameter:** 16mm | 1NO/1NC+1NO/1NC, 1NO/1NC | Solder Lug (Terminal Shroud) | Illuminated or Non-Illumi-nated | Silver Contacts | No Lamp Neon LED Incandescent | IP65 | Pushlock Turn Design |

***Specifications subject to change without notice***

# TACTILE





Tactile, a.k.a Tact, switches are used to close an electrical circuit when pressed. When the switch is released, it opens the circuit.

Tact switches come in a wide range of styles and sizes. E-Switch offers Tact switches from miniature to 12.4mm square in size and numerous styles — illuminated, non-illuminated, caps, round, square, rectangle and oval. Tact switches typically offer two mounting options, surface mount or thru-hole mount, and some right-angle options. Several Tact switches have very low profiles, from 0.35mm – 0.65mm and up.

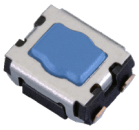
Reliability, long operation life and compact size make tact switches ideal for the growing market of wearable technology and handheld devices. Several other common markets include audio/visual equipment, telecommunications, computer electronics and peripheral equipment, instrumentation controls and medical devices.





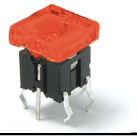
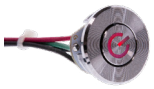
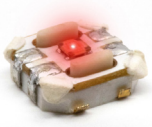


# TACTILE | PART 1

| E-SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | TRAVEL | DIMENSIONS | OPERATING FORCE (GF) | MOUNTING OPTIONS | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|---|
|  | **320** | Multiple Actuator Styles<br>**Life Cycles:** 1,000,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 50mΩ Max.<br>**Insulation Resistance:** 1,000MΩ Min. | 25mA, 50VDC | 0.6mm | 12.4mm x 12.4mm 12.4mm x 22.0mm | 135 | PCB Pin | ✕ |
|  | **TL1014** | **Life Cycles:** up to 200,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm (160 gf) 0.30mm (220 gf) | 4.7mm x 3.5mm | 160, 220 | SMT (Gull Wing) | ✕ |
|  | **TL1015** | **Life Cycles:** 200,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.20mm | 2.9mm x 3.9mm | 160 | SMT (Gull Wing) | ✕ |
|  | **TL1016** | **Life Cycles:** 100,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 500mΩ Max. (Initial)<br>**Insulation Resistance:** 100MΩ Min at 100VDC. | 50mA, 12VDC | 0.20mm +0.2/-0.1mm | 3.5mm x 2.9mm | 160gf + 70/-40gf 220gf + 80/-70gf | Boss Pin Ground Terminal SMT (Gull Wing) | ✕ |
|  | **TL1017** | **Life Cycles:** 200,000 cycles for 160gf 100,000 cycles for 260gf<br>**Operating Temperature:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max. (Initial)<br>**Insulation Resistance:** 100MΩ Min. at 500VDC | 50mA, 12VDC | 0.15mm ± 0.1mm | 4mm x 2.5mm | 160gf ± 50gf; 260gf ±50gf | SMT (Gull Wing) | ✕ |
|  | **TL1018** | **Life Cycles:** 500,000 cycles for 160gf 200,000 cycles for 240gf, 340gf, and 450gf<br>**Operating Temperature:** -40°C to 85°C | 50mA, 12VDC | 0.15mm ±0.1mm | 3.5mm x 2.6mm | 160gf (Black) 240gf (Black) 340gf (Orange) 450gf (Orange) | SMT Gull-Wing Ground Terminal | N/A |
|  | **TL1030** | **Life Cycles:** F160, F200, F350 - 200,000 cycles F500 - 100,000 cycles<br>**Operating Temperature:** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max. (Initial)<br>**Insulation Resistance:** 100MΩ Min. at 500VDC | 50mA, 12VDC | 0.15mm ±0.1mm | 3.5mm x 2.9mm | 160gf ±50gf (Grey) 200gf ±50gf (White) 350gf ±50gf (Blue) 500gf ±100gf (Brown) | SMT Ground Terminal J Lead | N/A |
|  | **TL1100** | Multiple Actuator Styles<br>**Life Cycles:** 100,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.3mm | 12.0mm x 12.0mm | 160, 260 | PCB Pin | ✕ |
|  | **TL1105** | Caps Available<br>**Life Cycles:** 100,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm | 6.0mm x 6.0mm | 100, 160, 250 | PCB Pin | ✕ |
|  | **RT1105** | **Life Cycles:** 100,000 Cycles<br>**Operating Temp:** -20°C to 85°C<br>**Contact Resistance:** 100mΩ Max. (Initial)<br>**Insulation Resistance:** 100MΩ Min. at 100VDC | 12VDC, 50mA | 0.25mm | 6.60 x 6.60 | 160gf ± 50gf 260gf +100/-50gf 350gf +100/-50gf | Top Actuated Through-hole, Reverse | ✕ |
|  | **RT3301** | **Life Cycles:** 100,000 cycles<br>**Operating Temperature:** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max. (Initial)<br>**Insulation Resistance:** 100MΩ Min. at 100VDC | 50mA, 12VDC | 0.25mm +0.2mm / -0.1mm | 6.00mm x 6.00mm | 100gf ± 30gf 160gf ± 50gf 260gf ± 50gf 320gf ± 70gf | Top Actuated, Reverse Surface Mount Design | ✕ |
|  | **TL1107** | Multiple Actuator Styles<br>**Life Cycles:** 30,000 (260gf), 50,000 (130gf & 180gf)<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm | 3.5mm x 6.0mm | 130, 180, 260 | PCB Pin | ✕ |

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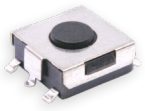
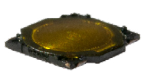
# TACTILE | PART 2

| E·SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | TRAVEL | DIMENSIONS | OPERATING FORCE (GF) | MOUNTING OPTIONS | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|---|
|  | **TL1220** | Caps Available<br>**Life Cycles:** 500,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.2mm | 7.5mm x 7.5mm<br>10.0mm x<br>14.0mm<br>10.0mm x<br>19.0mm<br>7, 8, 10mm Dia | 180 | PCB Pin | ✕ |
|  | **TL1240** | Caps Available / LED Illuminated<br>**Life Cycles:** 100,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm | 6.0mm x 6.0mm | 160 | PCB Pin | ✕ |
|  | **TL1250** | **Life Cycles:** 50,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.2mm | 7.0mm x 8.3mm | 120, 180, 280 | PCB Pin | ✕ |
|  | **TL1260** | Caps Available / LED Illuminated<br>**Life Cycles:** 50,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.2mm | 6.8mm x 7.0mm | 160 | PCB Pin | ✕ |
|  | **TL1265** | Caps Available / LED Illuminated<br>**Life Cycles:** 500,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.2mm | 6.8mm x 7.0mm | 160 | PCB Pin | ✕ |
|  | **TL1275** | **Life Cycles:** 100,000<br>**Operating Temp:** -25°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm | 19mm | 350 | PMT | ✕ |
|  | **TL2243** | Double Stacked Low Profile<br>**Life Cycles:** 30,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm | 7.3mm x 9.1mm | 180 | PCB Pin | ✕ |
|  | **TL3145** | Multiple Actuator Heights<br>**Life Cycles:** up to 3,000,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max. | 50mA, 12VDC | 0.5mm | 6.5mm x 6.5mm | 180gf<br>260gf<br>350gf | Surface Mount | ✕ |
|  | **TL3200** | Single or Dual LED Illumination<br>**Life Cycles:** 30,000<br>**Operating Temp:** -25°C to 85°C<br>**Contact Resistance:** 500mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm | 6.8mm x 4.5mm | 160 | SMT<br>(Gull Wing) | ✕ |
|  | **TL3210** | LED Illuminated<br>**Life Cycles:** 100,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 500mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.2mm | 5.6mm x 3.4mm | 160 | SMT<br>(Gull Wing) | ✕ |
|  | **TL3215** | LED Illuminated<br>**Life Cycles:** 1,000,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm | 4.9mm x 4.9mm | 160 | SMT<br>(Gull Wing) | ✕ |
|  | **TL3220** | LED Illuminated<br>**Life Cycles:** 100,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 500mΩ MAX.<br>**Insulation Resistance:** 100MΩ @ 500VDC | 12 VDC @ 50mA | 0.20mm | 4.90mm x<br>5.10mm x<br>2.00mm | 160 +/-50 gf | SMT<br>(Gull Wing) | IP5X |



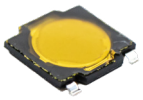
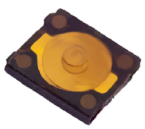
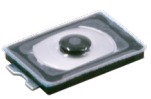
*Specifications subject to change without notice*

# TACTILE | PART 3

| E·SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | TRAVEL | DIMENSIONS | OPERATING FORCE (GF) | MOUNTING OPTIONS | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|---|
|  | **TL3240** | LED Illuminated / Caps Available<br>Life Cycles: up to 200,000<br>Operating Temp: -25°C to 70°C<br>Contact Resistance: 100mΩ Max.<br>Insulation Resistance: 100MΩ Min. | 50mA, 12VDC | 0.2mm | 6.1mm x 6.1mm | 100, 160, 260 | SMT (Gull Wing) | ✕ |
|  | **TL3253** | LED Illuminated<br>Life Cycles: up to 500,000<br>Operating Temp: -20°C to 70°C<br>Contact Resistance: 100mΩ Max.<br>Insulation Resistance: 100MΩ Min. | 50mA, 12VDC | 0.25mm | 8.4mm x 10.55mm | 160 | Right Angle PCB Pin | ✕ |
|  | **TL3265** | Multiple Actuator Styles<br>Life Cycles: up to 500,000<br>Operating Temp: -20°C to 70°C<br>Contact Resistance: 100mΩ Max.<br>Insulation Resistance: 100MΩ Min.@ 500VDC | 5mA, 12VDC | 0.2mm | 6.8mm x 7.0mm | 160 | SMT | ✕ |
|  | **TL3275** | **Life Cycles:** 100,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 500mΩ Max. (Initial)<br>**Insulation Resistance:** 100MΩ Min at 100VDC. | 50mA, 12VDC | 0.20mm ± 0.10mm | 6.4mm x 3.4mm | 160gf ± 50gf | SMT | ✕ |
|  | **TL3300** | Multiple Actuator Styles<br>Life Cycles: up to 200,000<br>Operating Temp: -25°C to 70°C<br>Contact Resistance: 100mΩ Max.<br>Insulation Resistance: 100MΩ Min. | 50mA, 12VDC | 0.35mm | 12mm x 12mm | 160, 260, 320, 520 | SMT (Gull Wing) | ✕ |
|  | **TL3301** | Caps Available / Multiple Actuator Styles<br>**Life Cycles:** 100,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm | 6.0mm x 6.0mm | 100, 160, 260 | SMT (Gull Wing) | ✕ |
|  | **TL3302** | Multiple Actuator Styles<br>**Life Cycles:** 20,000 - 50,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm | 3.5mm x 6.0mm | 130, 180, 260 | SMT (Gull Wing) | ✕ |
|  | **TL3303** | Multiple Actuator Styles<br>**Life Cycles:** 100,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm | 6.0mm x 6.0mm | 100, 160, 260 | SMT (Gull Wing) | ✕ |
|  | **TL3305** | Life Cycles: up to 500,000<br>Operating Temp: -20°C to 70°C<br>Contact Resistance: 100mΩ Max.<br>Insulation Resistance: 100MΩ Min. | 50mA, 12VDC | 0.20mm | 4.5mm x 4.5mm | 160, 260 | SMT (Gull Wing) | ✕ |
|  | **TL3312** | Life Cycles: 500,000(160gf) 50,000 (235 gf)<br>Operating Temp: -40°C to 85°C<br>Contact Resistance: 100mΩ Max.<br>Insulation Resistance: 100MΩ Min. | 50mA, 12VDC | 0.15mm | 3.7mm x 3.7mm | 160, 235 | SMT (Gull Wing) | ✕ |

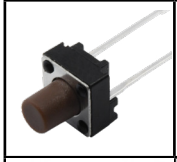
***Specifications subject to change without notice***

# TACTILE | PART 4

| E•SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | TRAVEL | DIMENSIONS | OPERATING FORCE (GF) | MOUNTING OPTIONS | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|---|
|  | TL3313 | **Life Cycles:** 100,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 50mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm | 4.8mm x 4.8mm | 100, 160, 250 | SMT (Gull Wing) | ✕ |
|  | TL3315 | **Life Cycles:** 1,000,000 (100gf), 500,000 (160gf), 200,000 (250gf)<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 200mΩ Max.<br>**Insulation Resistance:** 50MΩ Min. | 50mA, 12VDC | 0.2mm | 4.5mm x 4.5mm | 4.5mm x 4.5mm | SMT (Gull Wing) | ✕ |
|  | TL3330 | **Life Cycles:** 50,000 (130gf), 30,000 (260gf)<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm | 6.9mm x 3.3mm | 130, 260 | Right Angle SMT (Gull Wing) | ✕ |
|  | TL3336 | **Life Cycles:** 100,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max. (Initial)<br>**Insulation Resistance:** 100mΩ Max. (Initial) | 12VDC, 50mA | 0.35mm | 7mm x 7.10mm | 160gf ± 50gf | Right-Angle SMT | IP67 |
|  | TL3340 | **Life Cycles:** 100,000<br>**Operating Temp:** -35°C to 85°C<br>**Contact Resistance:** 500mΩ (Initial Max.)<br>**Insulation Resistance:** 100MΩ (Min. @ 100V) | 50mA @ 12VDC | 0.20 ± 0.10mm | 4mm x 3.3mm | 160gf ± 50gf; 130gf ± 30g | SMT (Gull Wing) | ✕ |
|  | TL3342 | **Life Cycles:** 100,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 20mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm | 5.2mm x 5.2mm | 160, 250 | SMT (Gull Wing) | ✕ |
|  | TL3360 | **Life Cycles:** 200,000<br>**Operating Temp:** -25°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.15mm | 6.5mm x 6mm | 185, 260 | Right Angle SMT (Gull Wing) | ✕ |
|  | TL3365 | **Life Cycles:** 100,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.20mm | 4.2mm x 3.2mm | 180 | SMT (Gull Wing) | ✕ |
|  | TL3701 | **Life Cycles:** 100,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 500mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.15mm | 3.0mm x 2.6mm | 100, 160 | SMT (Gull Wing) | ✕ |
|  | TL3780 | **Life Cycles:** up to 500,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 500mΩ Max.<br>**Insulation Resistance:** 50MΩ Min | 50mA, 12VDC | 0.13mm | 2.0mm x 3.0mm | 100,160, 240, 330 | SMT (Gull Wing) | ✕ |

***Specifications subject to change without notice***

# TACTILE | PART 5

| E-SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | TRAVEL | DIMENSIONS | OPERATING FORCE (GF) | MOUNTING OPTIONS | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|---|
|  | **TL3901** | **Life Cycles:** 50,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 500mΩ Max.<br>**Insulation Resistance:** 100MΩ Min | 50mA, 12VDC | 0.3mm | 5.4mm x 5.0mm | 180 | Right Angle Edge (Gull Wing) | ✕ |
|  | **TL4100** | **Life Cycles:** 1,000,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.15mm | 3.5mm x 6.2mm | 120, 240 | Right Angle Edge (Gull Wing) | ✕ |
|  | **TL4105** | **Life Cycles:** 200,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 1Ω Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.15mm | 2.9mm x 4.8mm | 160 | Right Angle Edge (Gullwing) | ✕ |
|  | **TL4115** | **Life Cycles:** 600,000<br>**Operating Temp**: -30°C to 85°C<br>**Contact Resistance:**<br>500mΩ Max. (Initial)<br>**Insulation Resistance:**<br>100MΩ Min. at 100VDC" | 12VDC, 50mA | 0.15mm | 2.6mm x 4.5mm | 160gf ± 50gf<br>220gf ± 70gf | SMT Right-Angle-Edge | ✕ |
|  | **TL4110** | **Life Cycles:** 300,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 500mΩ Max.<br>**Insulation Resistance:** 50MΩ Min. | 20mA, 15VDC | 0.13mm | 2mm x 2.8mm | 160 | SMT | ✕ |
|  | **TL52** | IP67 Rated<br>**Life Cycles:** 100,000<br>**Operating Temp:** -25°C to 85°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.3mm | 8.0mm x 8.0mm | 160, 260 | PCB Pin | IP67 |
|  | **TL58** | Multiple Actuator Styles<br>**Life Cycles:** 100,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm | 6.2mm x 6.2mm | 100, 160, 260 | Right Angle PCB Pin | ✕ |
|  | **TL59** | Multiple Actuator Styles<br>**Life Cycles:** 100,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm | 6.2mm x 6.2mm | 100, 160, 260 | PCB Pin | ✕ |
|  | **TL6059** | **Life Cycles:** 100,000 (160gf, 200gf), 1,000,000 (100gf)<br>**Operating Temp:** -30°C to 85°C<br>**Contact Resistance:** 100mΩ MAX.<br>**Insulation Resistance:**<br>100MΩ @ 500VDC | 12VDC @ 50mA | 0.20mm ± 0.10mm | 6.00mm x 6.00mm | 100, 160, 200 | PCB Pin | IP67 |
|  | **TL6100** | Multiple Actuator Styles<br>**Life Cycles:** up to 1,000,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.5mm | 7.4mm x 7.4mm | 130, 160, 300, 500 | PCB Pin | Process Sealed |
|  | **TL6105** | Multiple Actuator Styles<br>**Life Cycles:** up to 1,000,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.5mm | 7.4mm x 7.4mm | 130, 160, 300, 500 | PCB Pin w/ Earth ground terminal | ✕ |

***Specifications subject to change without notice***

# TACTILE | PART 6

| E•SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | TRAVEL | DIMENSIONS | OPERATING FORCE (GF) | MOUNTING OPTIONS | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|---|
|  | **TL6110** | Multiple Actuator Styles<br>**Life Cycles:** up to 1,000,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.5mm | 5.8mm x 8.3mmm | 130, 160, 300, 500 | Right Angle PCB Pin | Process Sealed |
|  | **TL6120** | Multiple Actuator Styles<br>**Life Cycles:** up to 1,000,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.5mm | 7.4mm x 7.4mm | 130, 160, 300, 500 | SMT (Gull Wing) | Process Sealed |
|  | **TL6150** | **Life Cycles:** Up to 5,000,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max. (Initial)<br>**Insulation Resistance:** 10MΩ Min. at 100VDC | 50mA, 32VDC | 0.3mm; 160gf<br>0.35mm; 200gf<br>0.5mm; 350gf | 6.2mm x 6.2mm | 160gf<br>200gf<br>350gf | SMT<br>Gull Wing or J-Lead | IP67 |
|  | **TL6155** | **Life Cycles:** 300,000<br>**Operating Temp:**-40°C to 85°C<br>**Contact Resistance:**100mΩ Max. (Initial)<br>**Insulation Resistance:** 10MΩ Min. at 100VDC" | 50mA, 32VDC | 0.5mm | 6.4mm x 6.55mm | 350gf ± 100gf | Right-Angle SMT | IP67 |
|  | **TL6170** | **Life Cycles:** 300,000 Cycles<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max. (Initial)<br>**Insulation Resistance:** 100MΩ Min. at 100VDC | 50mA, 12VDC | 0.40mm ± 0.20mm | 6.3mm x 6.3mm | 250gf ± 80gf<br>180gf ± 80gf | SMT<br>Gull Wing | IP67 |
|  | **TL6190** | **Life Cycles:** 100,000<br>**Operating Temp (Switch):** -40°C to 105°C<br>**Operating Temp (Cap):** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.5mm | 12.0mm x 11.5mm | 220 | Right Angle PCB Pin | Process Sealed |
|  | **TL6200** | **Life Cycles:** 10,000,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 30mΩ Max.<br>**Insulation Resistance:** 10MΩ Min. | 50mA, 24VDC | 1.0mm | 10.10mm x 10.10mm | 300 | SMT (Gull Wing) PCB Pin | IP67 |
|  | **TL6210** | LED Illuminated<br>**Life Cycles:** 100,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 500mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.45mm | 6.2mm x 4.6mm | 200 | SMT (Gull Wing) | IP67 |
|  | **TL6215** | Caps Available / LED Illuminated<br>**Life Cycles:** 500,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.45mm | 7.7mm x 6.37mm | 200, 450 | Vertical or Right Angle PCB Pin | IP67 |
|  | **TL6275** | LED Illuminated<br>**Life Cycles:** 100,000<br>**Operating Temp:** -25°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.25mm | 8mm x 8mm | 350 | PCB Pin | Process Sealed |

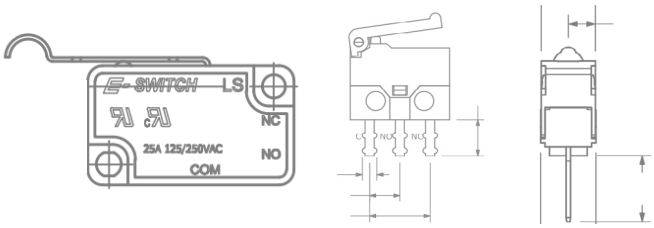
***Specifications subject to change without notice***

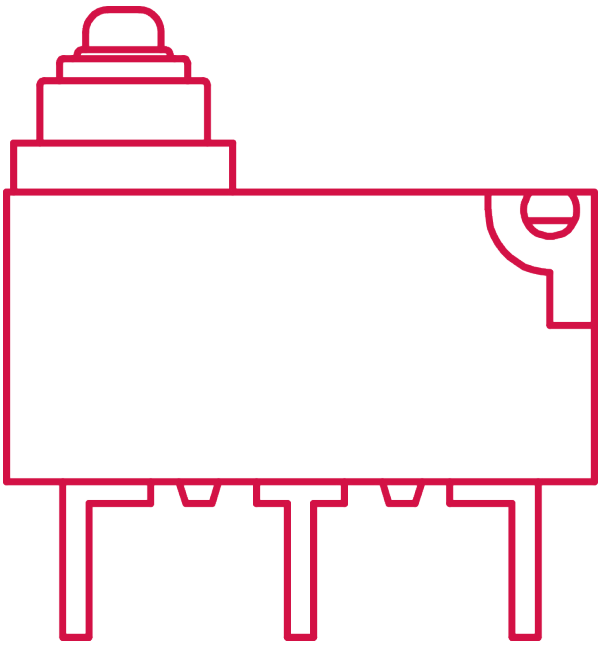
# TACTILE | PART 7

| E•SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | TRAVEL | DIMENSIONS | OPERATING FORCE (GF) | MOUNTING OPTIONS | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|---|
|  | **TL6300** | **Life Cycles:** 10,000,000<br>**Operating Temp:** -40°C to 90°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.3mm | 12mm x 12mm | 260 | PCB Pin | IP67 |
|  | **TL6330** | **Life Cycles:** 200,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 1GΩ Min. | 50mA, 32VDC | 0.25mm | 2.8mm x 4.6mm | 200 | SMT | IP67 |
|  | **TL6340** | **Life Cycles:** 200,000<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max. | 20mA, 12VDC | 0.2mm | 2.9mm x 3.90mm x 2mm | 160 | Right Angle Surface Mount | IP67 |
|  | **TL6400** | **Life Cycles:** 30 - 50,000 Cycles<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max. (Initial)<br>**Insulation Resistance:** 100MΩ Min. at 100VDC | 50mA, 12VDC | 0.15mm ± 0.10mm | 6mm x 3.4mm | 160gf ± 50gf 50,000 cycles<br>260gf ± 70gf 30,000 cycles | SMT (J-Bend) | IP67 |
|  | **TL6700** | **Life Cycles:** 500,000 (160gf), 100,000 (260gf)<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max.<br>**Insulation Resistance:** 100MΩ Min. | 50mA, 12VDC | 0.35mm | 6.9mm x 6.2mm | 160, 260 | SMT (Gull Wing J-Bend) | IP67 |
|  | **TL6800** | **Life Cycles:** 500,000 & 1,000,000<br>**Operating Temp:** -40°C to 90°C<br>**Contact Resistance:** 100mΩ Max. (Initial)<br>**Insulation Resistance:** 100MΩ Min. at 100VDC | 50mA, 12VDC | 0.25mm +0.15mm | 6.2mm x 6.3mm | 160gf 1,000,000 260gf 500,000 | SMT (J-Bend) | IP67 |
|  | **TL9100** | **Life Cycles:** 100,000(200gf); 30,000(350gf)<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 100mΩ Max<br>**Insulation Resistance:** 100MΩ @500 VDC. | 50mA, 12VDC | 1.3mm | 6.0mm x 6.0mm | 200, 350 | SMT (J-Bend) | ✕ |
|  | **TL9210** | **Life Cycles:** 100,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ initial<br>**Insulation Resistance:** 100MΩ Min.@100VDC | 50mA, 12VDC | 1.3mm | 6.0mm x 6.0mm | 200 | SMT (J-Bend) | ✕ |
|  | **TL9320** | **Life Cycles:** 500,000<br>**Operating Temp:** -20°C to 70°C<br>**Contact Resistance:** 100mΩ Max. | 50mA, 16VDC | 0.9mm | 8.4mm x 8.4mm x 3.95mm | 400 | Surface Mount | IP67 |

***Specifications subject to change without notice***

# SNAP ACTION



Snap Action switches, also called microswitches, are switch devices that can open and/or close an electrical circuit at a rapid speed. Triggered by an external force, either human or physical object, which is then applied to an actuator that requires very little pressure to operate.

Snap Action switches offer multiple actuator options, such as pin plunger, lever, roller or simulated roller lever. Reliability and long operating life make snap action switches ideal for counter top appliances, timer controls, vending machines, gaming devices, power tools and industrial controls.





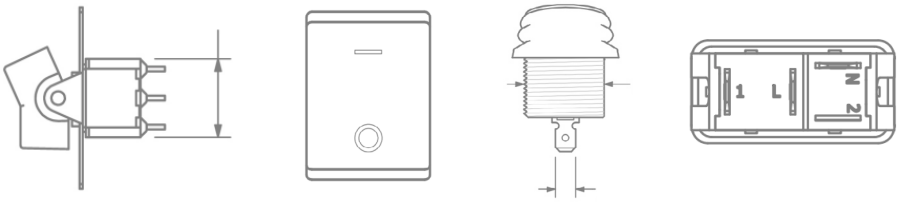


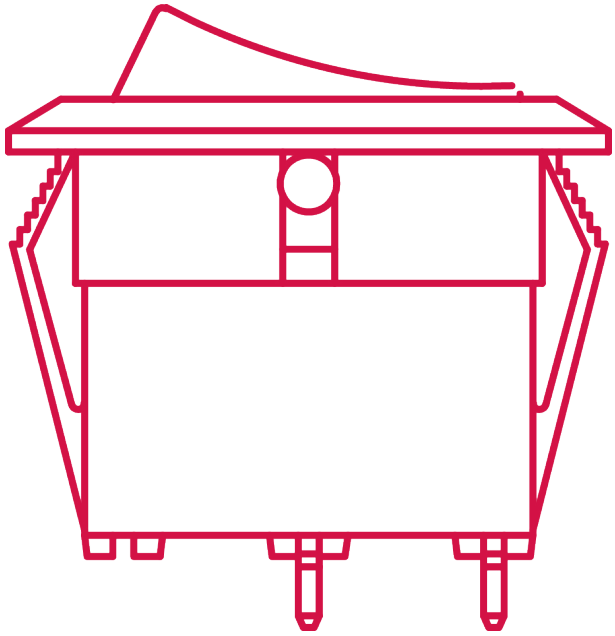
# SNAP ACTION

| E-SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | FUNCTIONS | OPERATING FORCE | 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,** 15A, 125/250VAC **Gold:** 0.4VA, 20V (AC or DC | SPST N.O. SPST N.C. SPDT | 25-250 *(*Depending upon actuator)* | Pin Plunger Lever Roller Simulated Roller | Quick Connect Right Angle PCB Pin Left Angle PCB Pin Solder Lug | **Width:** 27.9mm **Height:** 15.9mm **Depth:** 10.3mm |
|  | **LS25** | **Electrical Life:** 10,000 Cycles **Mechanical Life:** 1,000,000 Cycles **Operating Temp:** -25°C to +85°C **Contact Resistance:** 100mΩ MAX. (Initial) | 125/250VAC @ 25A | SPDT | 90-400 *(*Depending upon actuator)* | Round Pin Plunger, Lever Straight, Lever Simulated Roller, Lever Roller | Solder Lug Quick Connect (0.187" or 0.250") | **Width:** 27.8mm **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 | 10-295 *(*Depending upon actuator)* | Pin Plunger Lever Roller Simulated Roller Custom | Quick Connect PCB Pin Right Angle PCB Pin Left Angle PCB Pin Solder Lug | **Width:** 19.8mm **Height:** 10.6mm **Depth:** 6.4mm |
|  | **SS** | **Electrical Life:** 10,000 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 | 15-130 *(*Depending upon actuator)* | Pin Plunger Lever Simulated Roller | PCB Pin PCB Retention Right Angle PCB Pin Left Angle PCB Pin Solder Lug | **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. **Ingress Protection:** IP67 | 0.5A, 42VDC 1A, 24VDC 2A, 12VDC 3A, 125 /250VAC | SPDT | 50-70 *(*Depending upon actuator)* | Pin Plunger Lever Simulated Roller | PCB Pins Soldering Lugs | **Width:** 13.3mm **Height:** 7.0mm **Depth:** 5.3mm |
|  | **WS1** | **Electrical Life:** 100,000 Cycles MIN. **Mechanical Life:** 500,000 Cycles MIN **Operating Temp:** -40°C to 85°C **Contact Resistance:** 50mΩ Max. **Ingress Protection:** IP67 | 01 = 0.1A @ 48VDC 0.1A @ 125VAC, 250VAC 3 = 3A @ 12VDC 3A @ 125VAC, 250VAC | SPDT | 130 gf MAX. | Pin Plunger | Solder Lug Wire Leads | **Width:** 14.7mm **Height:** 6.3mm **Depth:** 5.4mm |
|  | **WS2** | **Electrical Life:** 100,000 Cycles MIN. **Mechanical Life:** 500,000 Cycles MIN **Operating Temp:** -25°C to 85°C **Contact Resistance:** 50mΩ Max. **Ingress Protection:** IP67 | 2A @ 30VDC 2A @ 250VAC | SPDT | 130 gf MAX. | Pin Plunger | Solder Lug Quick Connect PCB Pin | **Width:** 19.8mm **Height:** 10mm **Depth:** 6.3mm |

***Specifications subject to change without notice***

# ROCKER

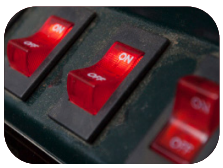


Rocker switches are commonly used as an on/off switch that rocks (rather than trips) when pressed, meaning the rocker opens or closes the circuit. This means that one side of the Rocker switch is raised while the other side is depressed, much like a seesaw or rocking horse.

E-Switch offers a range of Rocker switches, from miniature size with low current ratings to industrial use switches with high power and horsepower ratings. Several Rocker switches provide an IP rating of IP67, IP55 or IP54 depending the switch series.

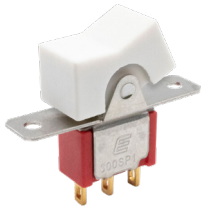
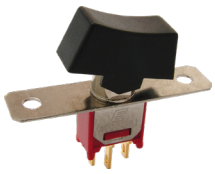
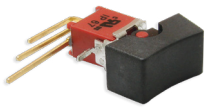
Panel mount installation is most common, however, a few E-Switch Rocker series provide PC mount options. Additional options include non-illuminated or illuminated, plus actuator shapes such as rectangle, round, oval and paddle style actuators.








# ROCKER | PART 1 - SUBMINIATURE

| E•SWITCH® | | ELECTRICAL RATINGS | POLES / FUNCTIONS | ACTUATOR OPTIONS | MOUNTING OPTIONS | TERMINAL OPTIONS | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|
|  | **300** | **Silver:**<br>5A, 120VAC [cURus]<br>5A, 28VDC<br>2A, 250VAC [cURus]<br><br>**Gold:**<br>0.4VA, 20V (AC or DC) | **1, 2, 3, or 4 Pole:**<br>On-On<br>On-Off-On<br>On-Off-(On)<br>(On)-Off-(On)<br><br>**2 Pole:**<br>On-On-On<br>(On)-On-(On)<br>On-On-(On)<br><br>**4 Pole:**<br>On-On-On | Paddle Rocker | **Panel Mount:**<br>Quick Connect<br>Vertical Solder Lug<br><br>**PC Mount:**<br>Horizontal Right Angle<br>Horizontal Right Angle with Bracket<br>Vertical<br>Vertical Right Angle<br>Vertical with Bracket | PCB Pin<br>Quick Connect<br>Solder Lug | ✕ |
|  | **300A** | **Silver:**<br>5A, 120VAC [cURus]<br>5A, 28VDC<br>2A, 250VAC [cURus]<br><br>**Gold:**<br>0.4VA, 20V (AC or DC) | **1 or 2 Pole:**<br>On-On<br>On-Off-On<br>On-Off-(On)<br>On-(On)<br>(On)-Off-(On) | Paddle Rocker | **Panel Mount:**<br>Quick Connect<br>Vertical Solder Lug<br><br>**PC Mount:**<br>Horizontal Right Angle<br>Horizontal Right Angle with Bracket<br>Vertical<br>Vertical Right Angle<br>Vertical with Bracket | PCB Pin<br>Quick Connect<br>Solder Lug | IP67 |
|  | **400** | **Silver:**<br>3A, 120VAC [cURus]<br>3A, 28VDC<br>1A, 250VAC [cURus]<br><br>**Gold:**<br>0.4VA, 20V (AC or DC) | **1 Pole:**<br>On-On<br>On-Off-On<br>On-Off-(On)<br>On-(On)<br>(On)-Off-(On)<br>Off-On<br><br>**2 Pole:**<br>On-On<br>On-Off-On<br>On-(On) | Rocker | **Panel Mount:**<br>Vertical Solder Lug<br><br>**PC Mount:**<br>Horizontal Right Angle<br>Horizontal Right Angle with Bracket<br>Vertical<br>Vertical Right Angle<br>Vertical Right Angle with Bracket<br>Vertical with Bracket | PCB Pin<br>Solder Lug | ✕ |
|  | **400A** | **Silver:**<br>3A, 120VAC [cURus]<br>3A, 28VDC<br>1A, 250VAC [cURus]<br><br>**Gold:**<br>0.4VA, 20V (AC or DC) | **1 Pole:**<br>On-On<br>On-Off-On<br>On-Off-(On)<br>On-(On)<br>(On)-Off-(On)<br>Off-On<br><br>**2 Pole:**<br>On-On<br>On-Off-On<br>On-(On) | Rocker | **Panel Mount:**<br>Vertical Solder Lug<br><br>**PC Mount:**<br>Horizontal Right Angle<br>Horizontal Right Angle with Bracket<br>Vertical Right Angle<br>Vertical Right Angle with Bracket<br>Vertical with Bracket | PCB Pin<br>Solder Lug | IP67 |
|  | **400B** | **Silver:**<br>3A, 120VAC [cURus]<br>1A, 250VAC [cURus] | **1 Pole:**<br>On-On<br>On-Off-On<br>On-Off-(On)<br>On-(On)<br>(On)-Off-(On) | Rocker | **PC Mount:**<br>Surface Mount | SMT | IP67 |
|  | **400U** | **Gold:**<br>0.4VA@ 24V AC or DC | **2 Pole:**<br>On-None-On | Rocker Lever | **PC Mount:**<br>Vertical Right Angle, PC thru-hole<br>Right Angle, PC thru-hole<br>PC thru-hole | PCB Pin | ✕ |

***Specifications subject to change without notice***

# ROCKER | PART 2 - RECTANGULAR PANEL MOUNT

| E•SWITCH® | | ELECTRICAL RATINGS | POLES / FUNCTIONS | PANEL CUTOUT | ACTUATOR OPTIONS | ILLUMINATION OPTIONS | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|
|  | **R1966** | 15A, 125VAC T65 [cURus] | **1 Pole:**<br>On-Off<br>On-Off-On<br>Off-(On)<br>On-Off-(On)<br>On-On<br>On-(Off)<br>On-(On)<br>(On)-Off-(On) | 13mm x 19.2mm | Curved | Full | ✕ |
|  | **R1973** | 9A, 125VAC T65 [cURus] | **1 Pole:**<br>On-Off<br>**2 Pole:**<br>On-Off | 13mm x 19.2mm | Curved | Full | ✕ |
|  | **R4** | 20A, 125VAC T65 [cURus] | **1 Pole:**<br>On-Off<br>On-Off-On<br>Off-(On)<br>On-(Off)<br>On-On<br>On-(On)<br>(On)-Off-(On) | 11mm x 30mm | Curved | Full<br>Dott | ✕ |
|  | **R5** | 20A, 125VAC T65 [cURus] | **2 Pole:**<br>On-Off<br>On-Off-On<br>Off-(On)<br>On-(Off)<br>On-On<br>On-(On)<br>(On)-Off-(On)<br>On-Off-(On) | 22mm x 30mm | Curved | Full | ✕ |
|  | **R6** | 10A, 125VAC T65 [cURus] | **1 Pole:**<br>On-Off<br>(On)-Off | 6.65mm x 19.2mm | Curved | ✕ | ✕ |
|  | **R7** | 16(8)A, 125/250VAC [cURus] | **1 or 2 Pole:**<br>On-Off<br>(On)-Off<br>On-(Off)<br>On-Off-On<br>On-On<br>(On)-On<br>(On)-Off-On<br>(On)-Off-(On) | 21.1mm x 37mm | Hard PC or TPR | Multiple Lens Options | IP67 |
|  | **RA1** | 16A, 125VAC 1/3HP T105 [cURus] | **1 Pole:**<br>Off-On<br>On-(On)<br>Off-(On)<br>On-Off-On<br>On-(Off)<br>On-Off-(On)<br>On-On<br>(On)-Off-(On) | 13mm x 19mm | Bi-Color<br>Curved<br>Custom | Full<br>Signal Light | IP54 with cap |
|  | **RA4** | 16A, 125VAC 1/3HP T105 [cURus] | **1 or 2 Pole:**<br>Off-On<br>Off-(On)<br>On-(Off)<br>On-On<br>On-Off-On<br>On-(On) | 22mm x 19.2mm | Curved<br>Paddle | Full | IP54 with cap |
|  | **RA8** | 16A, 125VAC 1/3HP T105 [cURus] | **1 Pole:**<br>Off-On<br>**2 Pole:**<br>Off-On | 13mm x 19mm | Bi-color Curved | Full<br>Signal Light | IP54 with cap |

***Specifications subject to change without notice***

# ROCKER | PART 3 - RECTANGULAR PANEL MOUNT

| E•SWITCH® | | ELECTRICAL RATINGS | POLES / FUNCTIONS | PANEL CUTOUT | ACTUATOR OPTIONS | ILLUMINATION OPTIONS | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|
|  | **RB1** | 20A, 125VAC 1/4HP T65 [cURus] | **1 Pole:**<br>Off-On<br>On-(On)<br>Off-(On)<br>On-Off-On<br>On-(Off)<br>On-Off-(On)<br>On-On<br>(On)-Off-(On) | 11mm x 30mm | Curved<br>Flat | Dot<br>Full<br>Signal Light | IP54 with cap |
|  | **RB2** | 20A, 125VAC 1/4HP T65 [cURus] | **1 or 2 Pole:**<br>Off-On<br>On-Off-On<br>(On)-Off-(On)<br>On-On<br>On-Off-(On)<br>**2 Pole Only:**<br>Off-(On)<br>On-(On) | 22mm x 30mm | Curved<br>Flat | Dot<br>Full<br>Signal Light | IP54 with cap |
|  | **RB3** | A - 16(8)A, 125/250VAC, T55, IP67<br>B - 20(8)A, 125/250VAC, T55, IP67<br>C - 25(8)A, 125/250VAC, T55, IP67<br>D - 16A, 6-48VDC, T55, IP67<br>E - 20A, 6-36VDC, T55, IP67<br>1 - 16(8)A, 125/250VAC, T125/55<br>2 - 20(8)A, 125/250VAC, T125/55<br>4 - 16A, 6-48VDC, 40T125/55<br>5 - 20A, 6-36VDC, 40T125/55 | **1 Pole:**<br>On-Off<br>On-Off-On<br>(On)-On<br>(On)-Off-On<br>On-On<br>(On)-Off<br>(On)-Off-(On) | 13.8mm x 30.2mm | Flat<br>Black or White | Single or Double LED | IP67 |
|  | **RB5** | A - 16(8)A, 125/250VAC, T55, IP67<br>B - 20(8)A, 125/250VAC, T55, IP67<br>C - 25(8)A, 125/250VAC, T55, IP67<br>D - 16A, 6-48VDC, T55, IP67<br>E - 20A, 6-36VDC, T55, IP67<br>1 - 16(8)A, 125/250VAC, T125/55<br>2 - 20(8)A, 125/250VAC, T125/55<br>4 - 16A, 6-48VDC, 40T125/55<br>5 - 20A, 6-36VDC, 40T125/55 | **2 Pole:**<br>On-Off<br>On-Off-On<br>(On)-On<br>(On)-Off-On<br>On-On<br>(On)-Off<br>(On)-Off-(On) | 22mm x 30.2mm | Flat<br>Black or White | Single or Double LED | IP67 |
|  | **RBW2** | 16(16)A, 125VAC 5E4 T85 [cURus] | **2 Pole:**<br>Off-On<br>*On-On | 22mm x 30mm | Curved | Full | IP66 |
|  | **RCA1913** | 16(8)A, 125/250VAC; UL<br>10(4)A, 125/250VAC; UL<br>16A, 30VDC; UL | SPST On-Off<br>SPDT On-On<br>SPDT On-Off-On | 19.2mm x 13mm | Black, Red, or White Actuator<br>6 Marking Options | ✕ | Full IP68 |
|  | **RD1** | 16A, 125VAC 1/3HP T105 [cURus] | **1 Pole:**<br>Off-On | 6.8mm x 19.2mm | Curved | ✕ | ✕ |
|  | **RSC** | 20A, 125VAC 1/4HP T105 [cURus] | **1 Pole:**<br>Off-On<br>Off-(On)<br>On-On | 28.6mm x 13.9mm<br>27.2mm x 12.1mm<br>27.2mm x 13.9mm<br>28.6mm x 12.1mm | Bi-Color<br>Curved<br>Flat | Full<br>Signal Light | N/A |
|  | **RVW** | 20A, 125VAC [cURus UL508]<br>**Momentary Switches:**<br>1.5HP, 220-240VAC [cURus UL508] | 20A, 125VAC [cURus UL508]<br>**Momentary Switches:**<br>1.5HP, 220-240VAC [cURus UL508] | 21mm x 36.8mm | Curved | ✕ | IP54 |
|  | **WB2** | **Maintained Switches:**<br>20A, 125/250VAC T65/T85 [cURus]<br>**Momentary Switches:**<br>20A, 125/250VAC T65/T85 [cURus] | **Maintained Switches:**<br>20A, 125/250VAC T65/T85 [cURus]<br>**Momentary Switches:**<br>20A, 125/250VAC T65/T85 [cURus] | 22mm x 30mm | Curved | ✕ | IP55 |

***Specifications subject to change without notice***

# ROCKER | PART 4 - ROUND PANEL MOUNT

| E•SWITCH® | | ELECTRICAL RATINGS | POLES / FUNCTIONS | PANEL CUTOUT | ACTUATOR OPTIONS | ILLUMINATION OPTIONS | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|
|  | **RE1** | 16A, 125VAC 1/3HP T105 [cURus] | **1 Pole:**<br>Off-On<br>On-On<br>On-Off-On | 13.5mm x 23.3mm (Oval) | Curved | Full | ✕ |
|  | **RR1** | 16A, 125VAC 1/3HP T105 [cURus] | **1 Pole:**<br>Off-On<br>Off-(On)<br>On-(Off)<br>On-Off-(On)<br>On-On<br>On-Off-On<br>On-(On) | 20mm | Curved | Dot<br>Full<br>Signal Light | IP54 with cap |
|  | **RR3112** | 16A, 125VAC T65 [cURus]<br>10A, 250VAC T65 [cURus] | **1 Pole:**<br>On-Off<br>On-Off-On<br>On-On<br>Off-(On) | 20.2mm | Curved | Full | ✕ |
|  | **RR3130** | 10A, 125VAC T65 [cURus]<br>6A, 250VAC T65 [cURus] | **1 Pole:**<br>On-Off<br>On-On<br>**2 Pole:**<br>On-On | 18.2mm | Curved | ✕ | ✕ |
|  | **RR3402** | 6A, 125VAC [cURus]<br>3A, 250VAC [cURus] | **1 Pole:**<br>On-Off<br>On-Off-On<br>On-On | 15mm | Paddle | ✕ | ✕ |

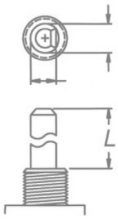
***Specifications subject to change without notice***

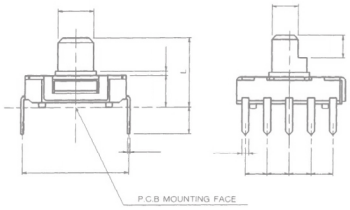
# ROCKER | PART 5 - ROUND PANEL MOUNT

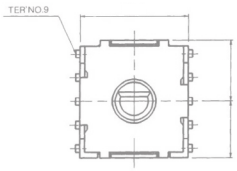
| E•SWITCH® | | ELECTRICAL RATINGS | POLES / FUNCTIONS | PANEL CUTOUT | ACTUATOR OPTIONS | ILLUMINATION OPTIONS | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|
|  | **RR5** | 20A, 125VAC T65 [cURus]<br>12A, 250VAC T65 [cURus] | **1 Pole:**<br>Off-On<br>Off-(On) | 20mm | Curved | ✕ | ✕ |
|  | **RR8** | 16A, 125VAC 1/3HP T105 [cURus]<br>10A, 250VAC 1/3HP T105 [cURus] | **1 Pole:**<br>Off-On<br>**2 Pole:**<br>Off-On | 20mm | Curved | Full | ✕ |
|  | **RRA** | 15A, 125VAC 1/3HP T105 [cURus]<br>10A, 250VAC 1/3HP T105 [cURus] | **1 Pole:**<br>Off-On<br>On-On<br>On-Off-On<br>**2 Pole:**<br>Off-On<br>On-On<br>On-Off-On | 22mm | Curved | Full | Capped to provide protection from the elements at an **IP54** ingress protection rating |
|  | **RRG3** | 16A, 125VAC 1/3HP T105 [cURus]<br>10A, 250VAC 1/3HP T105 [cURus] | **1 Pole:**<br>Off-On<br>On-On<br>Off-(On)<br>On-Off-On<br>On-(Off)<br>On-(On)<br>On-Off-(On) | 20mm | Curved | ✕ | ✕ |
|  | **RRGA** | 16A, 125VAC 1/3HP T105 [cURus]<br>10A, 250VAC 1/3HP T105 [cURus] | **1 Pole:**<br>Off-On<br>On-On<br>Off-(On)<br>On-Off-On<br>On-(Off)<br>On-(On)<br>On-Off-(On) | 22mm | Curved | ✕ | ✕ |
|  | **RRS20** | 16(8)A, 125/250VAC ~T55 (cURs,ENEC15)<br>10(4)A, 125/250VAC ~T55 (cURs,ENEC15)<br>16A, 30VDC T55 (cURs,ENEC15) | SPST<br>SPDT | 20mm | 6 Actuator Colors<br>6 Marking Options | Full Actuator: White, Orange, Green, Red, Blue | IP68 from Panel |

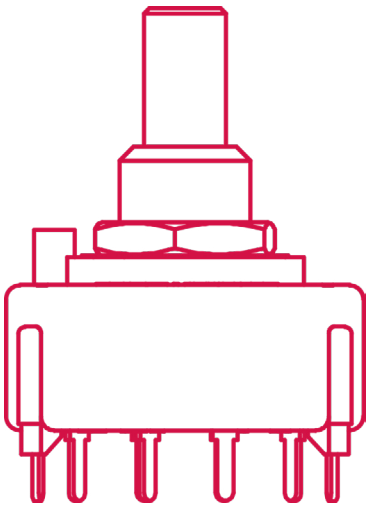
***Specifications subject to change without notice***

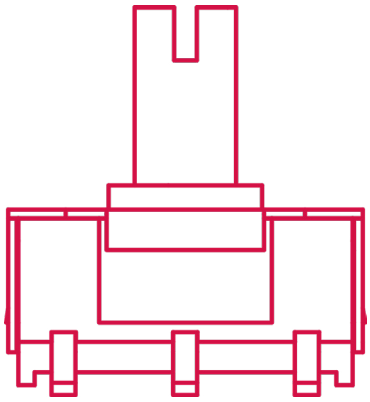
# ROTARY





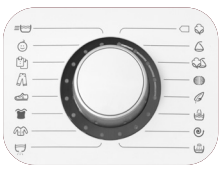


Rotary Switches use a rotating mechanism to select one of several positions. E-Switch products can feature up to four poles and 12 positions, and there are many actuator style and length options to choose from, as well as thru hole and solder lug termination styles.

These switches are commonly used to control and configure circuits in a wide range of applications. Rotary DP switches are used in situations where manual configuration is necessary, and the binary-coded positions allow for a straightforward way to set various options in circuits.

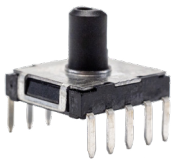
E-Switch rotary DIPs include up to 16 positions, PCB termination and IP67 ratings.



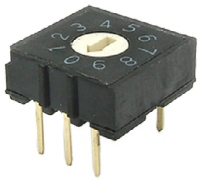
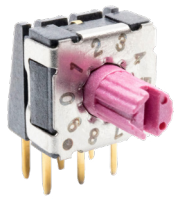




# ROTARY & ROTARY DIP

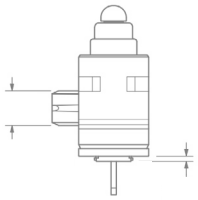
| E-SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | POLES / FUNCTIONS | ACTUATOR OPTIONS | CONTACT OPTIONS | TERMINAL OPTIONS |
|---|---|---|---|---|---|---|---|
|  | KC | **Mechanical Life:** 10,000 Cycles **Operating Force:** 8.6 N/cm **Contact Resistance:** 25mΩ initial @ 2-4 VDC, 100mA | 350mA, 125VAC; 150mA, 250VAC | 1 to 4 poles; 1 to 12 positions | Flat Round Slotted<br>Multiple lenght options | Silver<br>Gold | Through Hole |
|  | KC1901 | **Mechanical Life:** 10,000 Cycles **Operating Force:** 0.5N/cm **Contact Resistance:** 50mΩ initial @ 2-4 VDC, 100mA | 100mA, 16VDC | **SP9T** - single pole, 9 positions | 9.8mm Shaft Actuator | Silver | Through Hole |

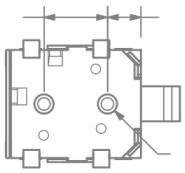
## ROTARY DIP

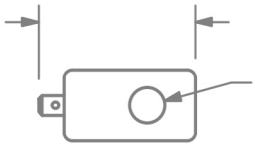
| E-SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | POSITIONS | ACTUATOR OPTIONS | TERMINAL OPTIONS | INGRESS PROTECTION | PACKAGING |
|---|---|---|---|---|---|---|---|---|
|  | DR | **Electrical Life:** 15,000 Cycles **Operating Force:** 200gf-cm **Operating Temp:** -25°C to 80°C **Contact Resistance:** 100mΩ Max. | Switch: 25mA, 24VDC; Carry: 100mA, 50VDC | 10 or 16 | Flush<br>Long<br>Short | Through Hole<br>Through Hole Right Angle<br>Surface Mount<br>Snap-In Through Hole | ✕ | Bulk<br>Tube<br>Tape & Reel |
|  | RDM | **Life Expectancy:** 25,000 Steps **Operating Force:** 250gf max **Operating Temp:** -60°C to 125°C **Contact Resistance:** 80mΩ Max. | Switch: 42VDC, 100mA; Carry: 42VDC, 400mA | 10 or 16 | Arrow Flush<br>Shaft 4.5mm High<br>Shaft 4.2mm High | Through Hole<br>Through Hole Right Angle<br>Surface Mount | IP67 | Tube<br>Tape & Reel |
|  | RDT | **Life Expectancy:** 10,000 Steps **Operating Force:** 700 gf-cm Max **Operating Temp:** THT: -40°C to 85°C SMT: -60°C to 125°C **Contact Resistance:** 80mΩ Max. | Switch: 42VDC, 150mA; Carry: 42VDC, 200mA | 4, 6, 8, 10, or 16 | Arrow Flush<br>Arrow Shaft<br>Cross<br>Arrow 0.1mm High<br>Grey Segment Wheel<br>Black Segment Wheel | Through Hole<br>Through Hole Right Angle<br>Surface Mount | IP67 (A, B, D Actuators) | Tube<br>Tape & Reel |

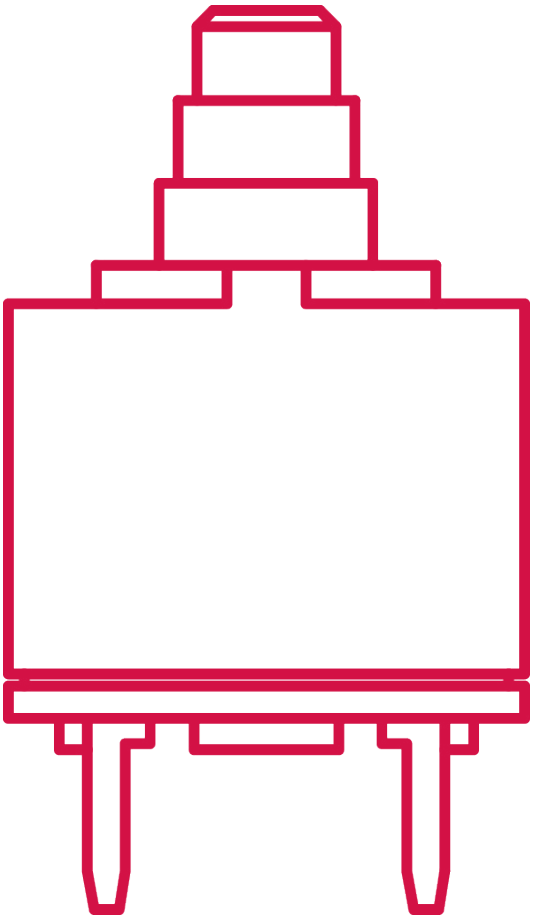
***Specifications subject to change without notice***

# DETECTOR









Detector switches are commonly employed in various applications where the detection of a specific state or object is necessary, such as industrial automation, security systems and electronic devices.

The specific operation of a detecter switch depends on its type and technology. For example, in a limit switch, the movement of an actuator might physically open or close electrical contacts.

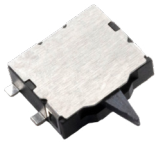
These types of switches come with long life and sealed options, as well as subminiature and ultra-miniature sizes. A variety of termination styles are available, ensuring the right fit for your application.





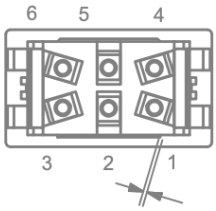


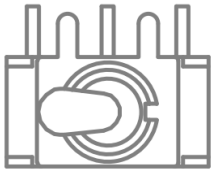
# DETECTOR

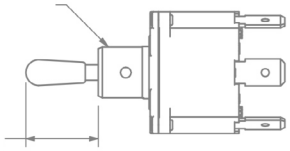
| E•SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | POLES / FUNCTIONS | GENERAL INFO | INGRESS PROTECTION |
|---|---|---|---|---|---|---|
|  | **900** | **Life Expectancy:** 50,000 cycles typical<br>**Operating Temp:** -25°C to +85°C<br>**Operating Force:** 50 gf max<br>**Contact Resistance:** 80mΩ max. typical @ 2-4 VDC 100mA | 100mA, 50VDC | SPST or SPST-NO circuit | 2.0mm Travel | ✕ |
|  | **MR1000** | **Contact resistance:** 150mΩ | 0.5A, 10V (AC or DC) | SPST-NO circuit | (2) 18 inch 22AWG Wire Leads | IP67 |
|  | **PP1** | **Electrical Life:** 6,000 Cycles<br>**Mechanical Life:** 50,000 Cycles<br>**Operating Temp:** 0°C to 85°C<br>**Contact Resistance:** 10mΩ Max. | 16A 125VAC; UL, cUL<br>12A 250VAC; UL, cUL<br>1HP 125/250VAC; UL, cUL | SPDT, push-pull or momentary functions | **Panel Cutout:** 28.4mm x 13.5mm | IP40 |
|  | **PP2** | **Electrical Life:** 6,000 Cycles<br>**Mechanical Life:** 50,000 Cycles<br>**Operating Temp:** 0°C to 85°C<br>**Contact Resistance:** 10mΩ Max. | 16A 125VAC; UL, cUL<br>12A 250VAC; UL, cUL<br>1HP 125/250VAC; UL, cUL<br>10R(4)A 277VAC 5E4; UL, cUL | DPDT, push-pull or momentary functions | **Panel Cutout:** 36.5mm x 13.5mm | IP40 |
|  | **TD1146** | **Electrical Life:** 30,000 Cycles<br>**Operating Temp:** -25°C to 70°C<br>**Operating Force:** <50 gf<br>**Contact Resistance:** 100mΩ Max. Initial | 1mA, 5VDC | SPST-NO circuit | 3.0mm Travel | ✕ |
|  | **TD1150** | **Electrical Life:** 300,000 Cycles<br>**Operating Temp:** -40°C to 85°C<br>**Operating Force:** 35gf<br>**Contact Resistance:** 500 mΩ | 100mA @ 12VDC | SPST-NO circuit; momentary function | 0.5mm Travel (electrical)<br>2.5mm Travel (full stroke) | IP67 |
|  | **TD1250** | **Mechanical Life:** 500,000 Cycles<br>**Operating Force:** 160gf max<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** Solder: 1Ω max. Initial PCB: 500mΩ max. Initial | 1mA, 5VDC ~ 50mA, 16VDC | SPST-NO circuit; momentary function | **Actuators:**<br>Pin Plunger<br>Straight Lever<br>S-Shaped Lever | IP67 |
|  | **TD1260** | **Operating Life:** 50,000 Cycles<br>**Operating Force:** 35gf Max.<br>**Operating Temp:** -25°C to 55°C<br>**Contact Resistance:** 3Ω Max. | 1mA @ 5VDC | SPST-NO<br>SPST-NC | J-Lead Termination<br>Angled Lever Actuation<br>Compact size | ✕ |
|  | **TD1270** | **Mechanical Life:** 100,000 Cycles<br>**Operating Force:** 30gf (MAX.)<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 500mΩ Initial (MAX.) | 10mA @ 5VDC | SPDT (On)-Off-(On) | Two-way operating, auto return<br>Mounting Bosses | IP40; not recommended for washing processes |
|  | **TD1350** | **Mechanical Life:** 10,000 Cycles<br>**Electrical Life:** 10,000 Cycles<br>**Operating Force:** 200 +/-30gf<br>**Operating Temp:** 0°C to 105°C<br>**Contact Resistance:** 20mΩ Initial (MAX.) | 12A, GP/R, 125/250VAC, 50/60Hz, T105, 1E4<br>3A, GP/R, 125/250VAC, 50/60Hz, T105, 1E4 | SPST | **Travel:** 9.0mm [0.35 in] | IP40 |
|  | **TD4700** | **Life Expectancy:** 100,000 Cycles<br>**Operating Force:** 50gf max<br>**Operating Temp:** -40°C to 85°C<br>**Contact Resistance:** 2Ω Max.Initial | 1mA, 5VDC | SPST-NO circuit | 2.2mm Travel | ✕ |

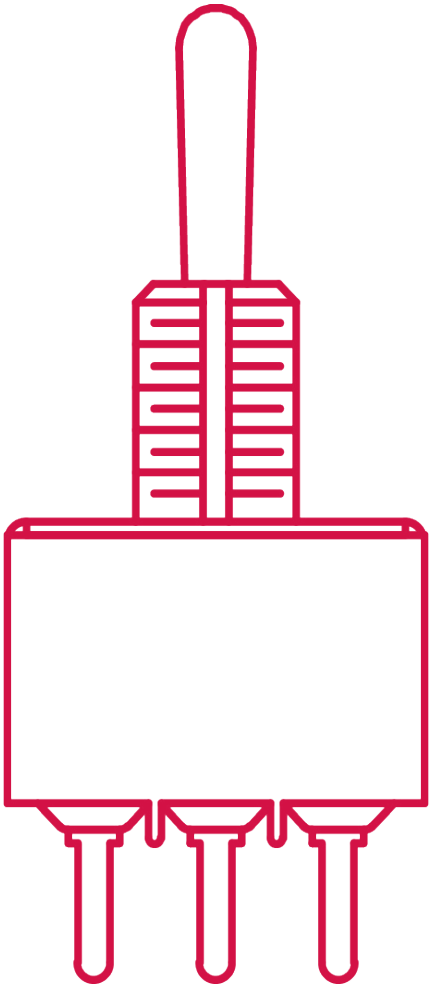
***Specifications subject to change without notice***

# TOGGLE







The Toggle switch is characterized by the presence of a manually operated handle or lever which controls the flow of electrical current from power supply to device, such as a household appliance.

E-Switch offers Toggle switches with multiple options such as actuators, bushings and terminals, as well as low to high current ratings and some with horsepower ratings for industrial applications.

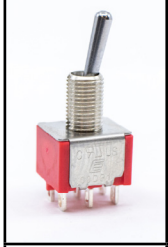
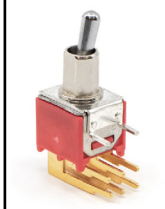
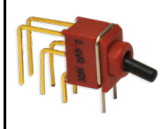
Smaller size toggles are often used in equipment for telecommunications, networking, instrumentation and medical devices. High power Toggles are used in industrial control panels, motor-sports vehicles, commercial appliances, restaurant equipment and recreational vehicles.








# TOGGLE | PART 1 - MINIATURE

| E-SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | POLES / FUNCTIONS | ACTUATOR OPTIONS | BUSHING OPTIONS | TERMINAL OPTIONS | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|---|
|  | **100** | **Electrical Life:**<br>6,000 Cycles<br>**Mechanical Life:**<br>40,000 Cycles<br>**Operating Temp:**<br>-30°C to 85°C<br>**Contact Resistance:**<br>10mΩ Max. | **Silver:**<br>5A, 120VAC [cURus]<br>5A, 28VDC<br>2A, 250VAC [cURus]<br><br>**Gold:**<br>0.4VA, 20V Max.<br>(AC or DC) | **1 or 3 Pole:**<br>On-On<br>On-Off-On<br>On-Off-(On)<br>On-(On)<br>(On)-Off-(On)<br>**2 or 4 Pole:**<br>On-On<br>On-Off-On<br>On-Off-(On)<br>On-On-(On)<br>On-(On)<br>(On)-Off-(On)<br>On-On-On<br>(On)-On-(On) | Flat<br>Locking<br>Metal<br>Plastic | High Torque<br>Non-Threaded<br>Threaded<br>Splash Proof | Quick Connect<br><br>Right Angle PCB Pin<br><br>Solder Lug<br><br>Vertical PCB Pin<br><br>Wire Wrap | ✕ |
|  | **100A** | **Electrical Life:**<br>6,000 Cycles<br>**Mechanical Life:**<br>30,000 Cycles<br>**Operating Temp:**<br>-30°C to 85°C<br>**Contact Resistance:**<br>10mΩ Max. | **Silver:**<br>5A, 120VAC [cURus]<br>5A, 28VDC<br>2A, 250VAC [cURus]<br><br>**Gold:**<br>0.4VA, 20V Max.<br>(AC or DC) | **1 Pole:**<br>On-On<br>On-Off-On<br>On-Off-(On)<br>On-(On)<br>(On)-Off-(On)<br>**2 Pole:**<br>On-On<br>On-Off-On<br>On-Off-(On)<br>On-(On)<br>(On)-Off-(On) | Metal<br>Plastic | Non-Threaded<br>Threaded | Right Angle PCB Pin<br><br>Solder Lug<br><br>Vertical PCB Pin<br><br>Wire Wrap | IP67 |
|  | **200** | **Electrical Life:**<br>6,000 Cycles<br>**Mechanical Life:**<br>30,000 Cycles<br>**Operating Temp:**<br>-20°C to 85°C<br>**Contact Resistance:**<br>20mΩ Max. | **Silver:**<br>3A, 120VAC [cURus]<br>3A, 28VDC<br>1A, 250VAC [cURus]<br><br>**Gold:**<br>0.4VA, 20V Max.<br>(AC or DC) | **1 Pole:**<br>On-On<br>On-Off-On<br>On-Off-(On)<br>On-(On)<br>(On)-Off-(On)<br>Off-On<br>**2 Pole:**<br>On-On<br>On-Off-On<br>On-(On) | Metal | Non-Threaded<br>Threaded | Right Angle PCB Pin<br><br>Solder Lug<br><br>Vertical PCB Pin | ✕ |
|  | **200A** | **Electrical Life:**<br>6,000 Cycles<br>**Mechanical Life:**<br>30,000 Cycles<br>**Operating Temp:**<br>-30°C to 85°C<br>**Contact Resistance:**<br>20mΩ Max. | **Silver:**<br>3A, 120VAC [cURus]<br>3A, 28VDC<br>1A, 250VAC [cURus]<br><br>**Gold:**<br>0.4VA, 20V Max.<br>(AC or DC) | **1 Pole:**<br>On-On<br>On-Off-On<br>On-Off-(On)<br>On-(On)<br>(On)-Off-(On)<br>Off-On<br>**2 Pole:**<br>On-On<br>On-Off-(On)<br>On-(On) | Metal<br>Plastic | Non-Threaded | Right Angle PCB Pin<br><br>Vertical PCB Pin | IP67 |
|  | **200B** | **Electrical Life:**<br>6,000 Cycles<br>**Mechanical Life:**<br>50,000 Cycles<br>**Operating Temp:**<br>-30°C to 85°C<br>**Contact Resistance:**<br>20mΩ Max. | **Gold:**<br>0.4VA, 20V Max.<br>(AC or DC) | **1 Pole:**<br>On-(On)<br>On-Off-On<br>(On)-Off-(On)<br>On-Off-(On) | Metal<br>Plastic | Non-Threaded | Surface Mount | IP67 |
|  | **200R** | **Electrical Life:**<br>6,000 Cycles<br>**Mechanical Life:**<br>40,000 Cycles<br>**Operating Temp:**<br>-30°C to 85°C<br>**Contact Resistance:**<br>50mΩ Max. | **Gold:**<br>0.4VA, 48V Max. (AC or DC) | **1 or 2 Pole:**<br>On-None-On<br>On-None-(On)<br>On-Off-On<br>(On)-Off-(On)<br>On-Off-(On) | Metal | Non-Threaded | Surface Mount Right Angle PCB Pin<br><br>Verticle Right Angle PCB Pin | ✕ |
|  | **200U** | **Electrical Life:**<br>40,000 Cycles<br>**Mechanical Life:**<br>40,000 Cycles<br>**Operating Temp:**<br>-30°C to 85°C<br>**Contact Resistance:**<br>100mΩ Max. | **Gold:**<br>0.4VA, 20V Max.<br>(AC or DC) | **1 or 2 Pole:**<br>Off-On<br>On-Off-On<br>On-On | Plastic | Non-Threaded | PCB Pin<br>Right Angle PCB Pin<br>Vertical Right Angle-PCB Pin | IP67 |

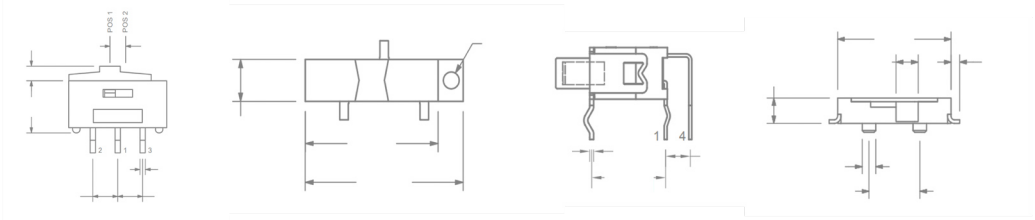
***Specifications subject to change without notice***

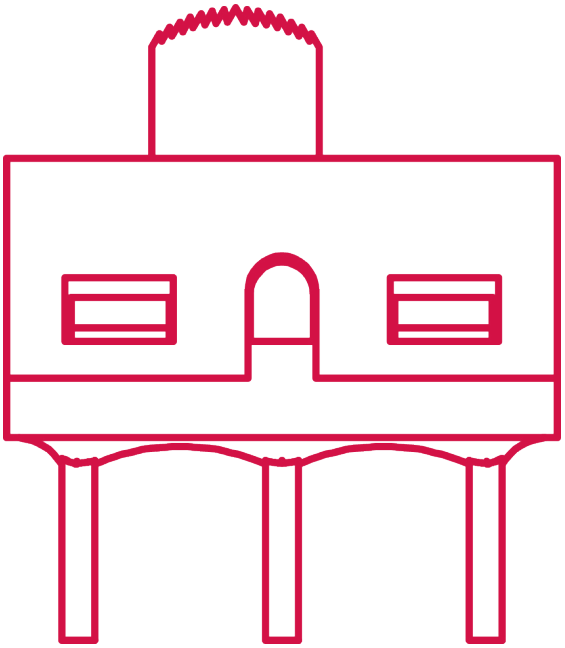
# TOGGLE | PART 2 - PANEL MOUNT

| E•SWITCH® | | GENERAL RATINGS | ELECTRICAL RATINGS | POLES / FUNCTIONS | ACTUATOR OPTIONS | BUSHING OPTIONS | TERMINAL OPTIONS | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|---|
|  | ST1 | **Electrical Life:**<br>6,000 Cycles<br>**Mechanical Life:**<br>100,000 Cycles<br>**Operating Temp:**<br>-20°C to 85°C<br>**Contact Resistance:**<br>50mΩ Max. | **Maintained Switches:**<br>20A, 125VAC [cURus]<br>15A, 277VAC [cURus]<br>2HP, 125-277VAC [cURus]<br>**Momentary Switches:**<br>20A, 125VAC [cURus]<br>15A, 277VAC [cURus]<br>1.5HP, 125-277VAC [cURus] | **2 Pole:**<br>Off-On On-On<br>Off-(On) On-Off-On<br>On-Off-(On)<br>(On)-Off-(On) | Metal | Threaded | Quick Connect<br>Screw<br>Solder Lug<br>Wire Leads | ✕ |
|  | ST2 | **Electrical Life:**<br>6,000 Cycles<br>**Mechanical Life:**<br>100,000 Cycles<br>**Operating Temp:**<br>-20°C to 85°C<br>**Contact Resistance:**<br>50mΩ Max. | **Maintained Switches:**<br>20A, 125VAC [cURus]<br>15A, 277VAC [cURus]<br>2HP, 125-277VAC [cURus]<br>**Momentary Switches:**<br>20A, 125VAC [cURus]<br>15A, 277VAC [cURus]<br>1.5HP, 125-277VAC [cURus] | **2 Pole:**<br>Off-On On-On<br>Off-(On) On-Off-On<br>On-Off-(On)<br>(On)-Off-(On) | Metal | Threaded | Quick Connect<br>Screw<br>Solder Lug<br>Wire Leads | ✕ |
|  | ST3 | **Electrical Life:**<br>6,000 Cycles<br>**Mechanical Life:**<br>100,000 Cycles<br>**Operating Temp:**<br>-20°C to 85°C<br>**Contact Resistance:**<br>50mΩ Max. | **Maintained Switches:**<br>24A, 125VAC [cURus]<br>15A, 277VAC [cURus]<br>2HP, 125-277VAC [cURus] | **3 Pole:**<br>Off-On On-On<br>On-Off-On | Metal | Threaded | Quick Connect<br>Screw<br>Solder Lug<br>Wire Leads | ✕ |
|  | ST4 | **Electrical Life:**<br>10,000 Cycles<br>**Operating Temp:**<br>-10°C to 55°C<br>**Contact Resistance:**<br>50mΩ Max. initial | 16(8)A 125/250VAC µT55<br>20(8)A 125/250VAC µT55<br>20A 6-30VDC µT55 | P1 - Off - (On)<br>P2 - Off - On<br>P3 - On - On<br>P4 - (Off) - On<br>P5 - (On) - Off<br>P6 - (On) - ON<br>P7 - ON - (On)<br>P8 - On - Off - On<br>P9 - On - Off - (On)<br>P10 - (On) - Off - (On) | Metal Bat<br>Plastic Bat | Threaded | Quick Connect<br>Solder Lug<br>Screw Terminals<br>Wire Leads | IP68 |
|  | ST5 | **Electrical Life:**<br>10,000 Cycles<br>**Operating Temp:**<br>-10°C to 125°C<br>**Contact Resistance:**<br>50mΩ Max. initial | 16(8)A 125/250VAC µT125/55<br>20(8)A 125/250VAC µT125/55<br>20A 6-30VDC µT125/55 | P1 - Off - (On)<br>P2 - Off - On<br>P3 - On - On<br>P4 - (Off) - On<br>P5 - (On) - Off<br>P6 - (On) - On<br>P7 - On - (On)<br>P8 - On - Off - On<br>P9 - On - Off - (On)<br>P10 - (On) - Off - (On) | Metal Bat<br>Plastic Bat | Threaded | Quick Connect<br>Solder Lug<br>Screw Terminals | IP40 |

***Specifications subject to change without notice***

# SLIDE

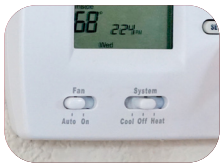




A slide switch utilizes a mechanical lever to turn an electrical current on and off. Depending on the number of positions available, the lever can move (slide) between an open or closed state. Compact in size, E-Switch offers Slide switches with multiple termination options.

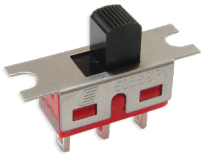
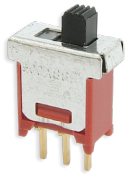
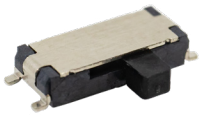
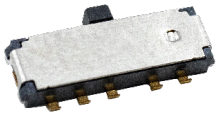
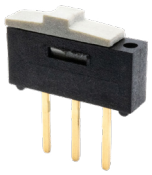
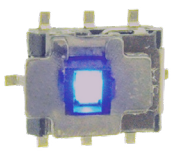
Slide switches are commonly used in computer server/peripheral equipment, instrumentation devices, test and measurement equipment and consumer electronics and household appliances.





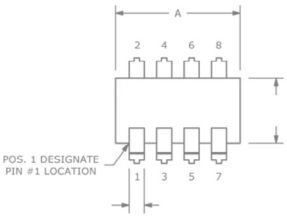


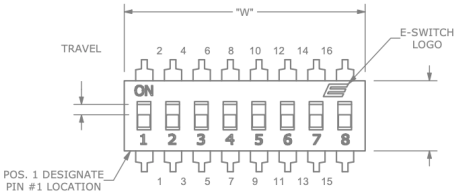
# SLIDE

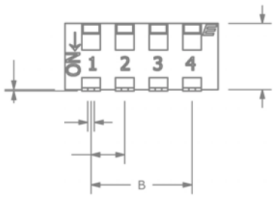
| E•SWITCH® | | ELECTRICAL RATINGS | POLES | POSITIONS | TERMINAL OPTIONS | PANEL MOUNT CAPABLE | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|
|  | 500 | **Silver:**<br>5A, 120VAC [cURus]<br>2A, 250VAC [cURus]<br><br>**Gold:**<br>0.4VA, 20V (AC or DC) | Up to 2 Poles | Up to 3 Positions | PCB Pin<br>Solder Lug<br>Quick Connect<br>Wire Wrap | ● | ✕ |
|  | 500A | **Silver:**<br>3A, 120VAC [cURus]<br>1A, 250VAC [cURus]<br><br>**Gold:**<br>0.4VA, 20V (AC or DC) | Up to 2 Poles | Up to 3 Positions | PCB Pin | ✕ | ✕ |
|  | 500R | **Gold:**<br>0.4VA, 20V (AC or DC) | Up to 2 Poles | Up to 3 Positions | Right Angle PCB Pin<br>Vertical PCB Pin | ✕ | IP67 |
|  | 600 | **Silver:**<br>1A, 30VDC<br><br>**Gold:**<br>0.4VA, 20V (AC or DC) | 1 Pole | Up to 3 Positions | Right Angle PCB Pin<br>Vertical PCB Pin<br>Surface Mount | ✕ | ✕ |
|  | EG | 200mA, 30VDC | Up to 6 Poles | Up to 6 Positions | PCB Pin<br>Surface Mount | ● | ✕ |
|  | EG1215 | 25mA, 24VDC | 1 Pole | 2 Positions | Surface Mount | ✕ | ✕ |
|  | EG1312 | 30mA @15VDC | 3 Pole | 3 Positions | Surface Mount PCB | ✕ | ✕ |
|  | EG1315 | 25mA, 24VDC | 1 Pole | 3 Positions | Surface Mount | ✕ | ✕ |
|  | EGJ1210 | 300mA @ 24VDC | 1 Pole | 2 Positions | Through Hole<br><br>Through Hole Right Angle<br><br>Gull Wing<br><br>Gull Wing Right Angle | ✕ | ✕ |
|  | EGL2290 | 300mA, 6VDC | 2 Poles | 2 Positions | Surface Mount | ✕ | ✕ |

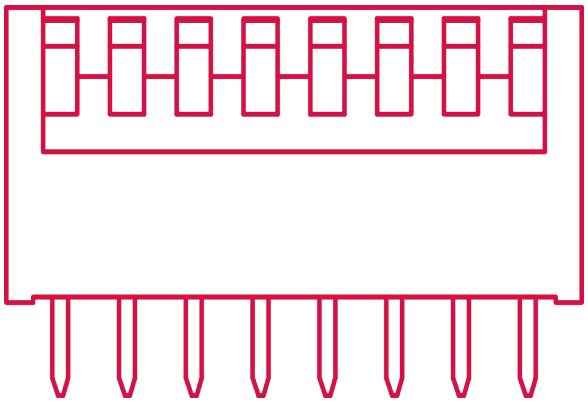
***Specifications subject to change without notice***

# DIP



DIP switch refers to a set of electrical switches packaged in a small box or housing, which are arranged in a line or circle (rotary DIP). The function is to provide a range of electrical inputs to an electronic device based on the position of the individual switches within the line or circle. The main advantage of a DIP switch is the ability to quickly change positions.

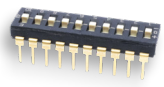
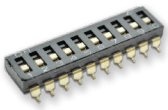
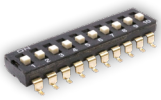
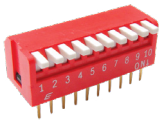
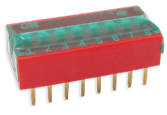
Common applications for DIP switches include computer server/peripheral equipment, instrumentation devices, test and measurement equipment, audio/visual equipment, consumer electronics and medical equipment.





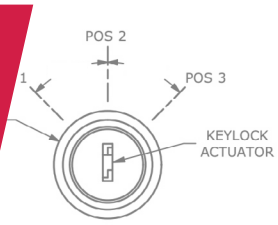


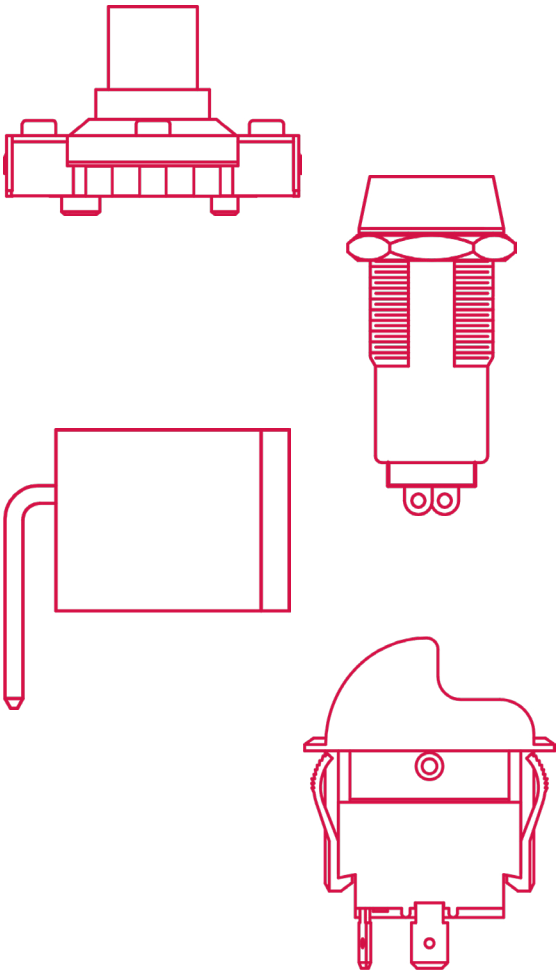
# DIP

| E•SWITCH® | | GENRAL RATINGS | ELECTRICAL RATINGS | DIMENSIONS (MM) | POSITIONS | ACTUATOR OPTIONS | MOUNTING OPTIONS | PACKAGING | TAPE SEAL / WASHABLE |
|---|---|---|---|---|---|---|---|---|---|
|  | KAC | **Life Cycles:** 2,000<br>**Operating Force:** 800gf Max.<br>**Operating Temp:** -20°C to 85°C | **Switch:** 25mA, 24VDC<br>**Carry:** 100mA, 50VDC | **Height:** 5.0<br>**Width:** 6.0<br>**Length:** Varies per # of positions | 2, 4, 6, 8, 10 | Extended | SMT (Gull Wing) PCB Pin (Splayed) | Tape and Reel Tube | ✕ |
|  | KAD | **Life Cycles:** 2,000<br>**Operating Force:** 1,000gf Max.<br>**Operating Temp:** -20°C to 85°C | **Switch:** 25mA, 24VDC<br>**Carry:** 100mA, 50VDC | **Height:** 3.70 (Gullwing) 7.20 (Straight)<br>**Width:** 9.80 (Gullwing) 7.62 (Straight)<br>**Length:** Varies per # of positions | 4, 5, 8, 9, 10 | Extended Recessed w/ or w/out Top Tape Seal | SMT (Gullwing) PCB Pin (Straight) | Tape and Reel Tube | ✕ |
|  | KAE | **Life Cycles:** 2,000<br>**Operating Force:** 1,000gf Max.<br>**Operating Temp:** -20°C to 85°C | **Switch:** 25mA, 24VDC<br>**Carry:** 100mA, 50VDC | **Height:** 3.05<br>**Width:** 6.3<br>**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 | ✕ |
|  | KAG | **Life Cycles:** 1,000<br>**Operating Temp:** -40°C to 105°C | **Switching** 25mA @ 24VDC<br>**Non-Switching** 100mA @ 50VDC | **Height:** 4.00<br>**Width:** 9.90<br>**Length:** Varies per # of positions | 1, 2, 4, 8, 10 | Extended Recessed w/ or w/out Top Tape Seal | SMT (Gull Wing) | Tape and Reel Tube | ✕ |
|  | KAN | **Life Cycles:** 2,000<br>**Operating Force:** 500gf Max.<br>**Operating Temp:** -40°C to 85°C | **Switch:** 25mA, 24VDC<br>**Carry:** 100mA, 50VDC | **Height:** 1.5<br>**Width:** 4.5<br>**Length:** Varies per # of positions | 2, 4, 6, 8, 10 | Recessed | SMT (Gull Wing) | Tape and Reel Tube | ✕ |
|  | KAP | **Life Cycles:** 2,000<br>**Operating Force:** 400gf Max.<br>**Operating Temp:** -40°C to 85°C | **Switch:** 25mA, 24VDC<br>**Carry:** 100mA, 50VDC | **Height:** 10.8<br>**Width:** 10.2<br>**Length:** Varies per # of positions | 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 | Extended Recessed | PCB Pin | Tube | ✕ |
|  | KAS | **Life Cycles:** 2,000<br>**Operating Force:** 1,000gf Max.<br>**Operating Temp:** -40°C to 85°C | **Switch:** 25mA, 24VDC<br>**Carry:** 100mA, 50VDC | **Height:** 6.0<br>**Width:** 9.9<br>**Length:** Varies per # of positions | 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 | Extended Recessed | PCB Pin (Vertical & Right Angle) | Tube | ✕ |

***Specifications subject to change without notice***

# OTHER SWITCHES



**Navigation switches:** Used for navigating through menus, options or interfaces on devices.

**Keylock switches:** used to control and offer a physical barrier to prevent unauthorized operation of equipment.

**Tilt switches:** Detect changes in orientation and then trigger actions, like making or breaking a connection, in response.

**Trigger switches:** used in devices where a quick, manual activation is required.





# OTHER SWITCHES

## NAVIGATION

| E-SWITCH® | | ELECTRICAL RATINGS | PROFILE | POLES / FUNCTIONS | OPERATING FORCE | TRAVEL | OPERATING TEMP | TERMINAL OPTIONS |
|---|---|---|---|---|---|---|---|---|
|  | JS1300 | 50mA 12VDC | 1.55mm | 5-position<br>4-way directional<br>Center select | Center: 320gf +80/-60gf; Tilt: 180gf ± 60gf | 0.25 ± 0.15m | -40°C to 85°C | J Lead |
|  | JS1400 | 50mA 12VDC | 4.0mm<br>4.5mm<br>5.0mm<br>6.4mm | 5-position<br>4-way directional<br>Center select | Center: 360gf ± 60gf;<br>Tilt: 160gf ± 50gf | 5° +2.5°/-1° tilt<br><br>0.25mm +0.1/-0.2mm center | -40°C to 85°C | Flat Gull Wing<br><br>Inverted Gull Wing (J Lead) |
|  | JS5208 | 20mA 15VDC | 12.2mm | 5-position<br>4-way directional<br>Center select | Center: 500gf ± 150gf;<br>Tilt: 280gf ± 100gf | 8° ± 2° tilt<br><br>1.0mm ± 0.2mm center | -20°C to 70°C | Gull Wing |

## KEYLOCK

| E-SWITCH® | | ELECTRICAL RATINGS | LOCK CONFIGURATIONS | KEY OPTIONS | CONTACT OPTIONS | ILLUMINATION OPTIONS | INGRESS PROTECTION |
|---|---|---|---|---|---|---|---|
|  | K0 | Varies by Configuration | 25+ Lock Configurations | Barrel or Flat Key<br><br>1 to 5,000 Key Codes (Depends on Configuration) | Silver Plated Options | N/A | N/A |
|  | PVK4 | 2A, 24VDC | 2 or 3 Positions | Key or Selector | Silver or Gold | White<br>Red<br>Orange<br>Green<br>Blue<br>Yellow | IP65 (Maintained)<br><br>IP40 (Return) |

## TILT

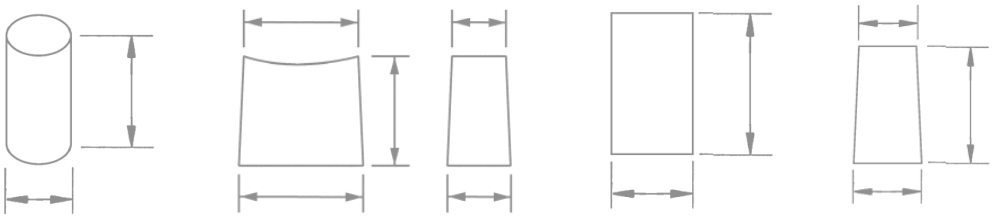
| E-SWITCH® | | ELECTRICAL RATINGS | LIFE EXPECTANCY | POLES / FUNCTIONS | CONTACT MATERIAL | OPERATING TEMP |
|---|---|---|---|---|---|---|
|  | TM1000 | 20mA, 20V (AC or DC) | 1,000,000 Cycles | SPST | Silver | -25°C to 70°C |

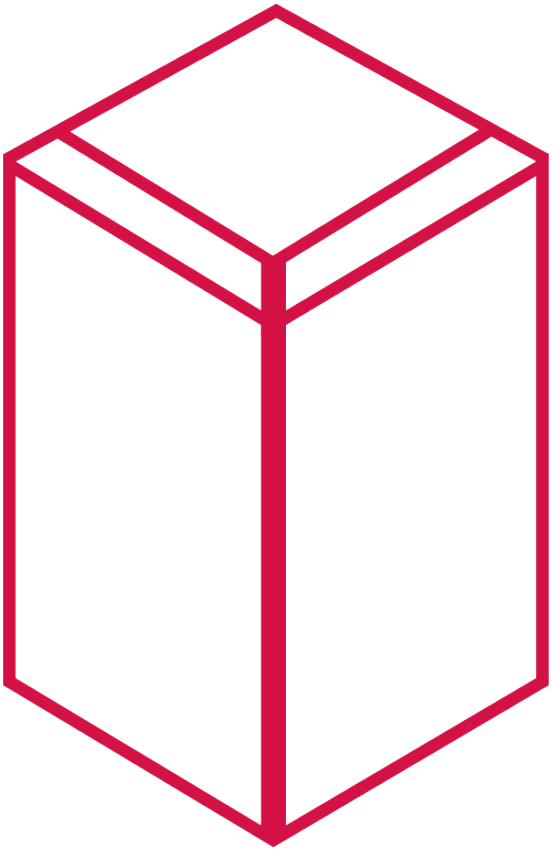
## TRIGGER

| E-SWITCH® | | CUSTOMIZATION |
|---|---|---|
|  | HY | *Because each project has specific requirements, almost every trigger switch is custom. Contact us today to find out how we can create the ideal switch for your needs.* |

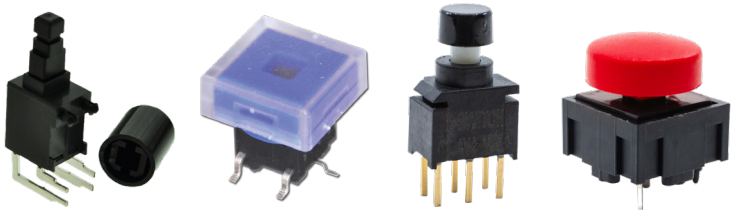
***Specifications subject to change without notice***

# CAPS

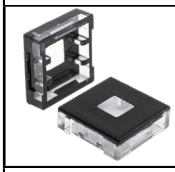
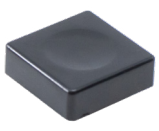


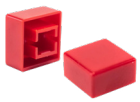
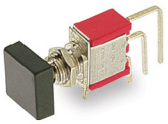


E-Switch offers a variety of caps (color, shape, mounting style) for supported switch types. Caps can add extra protection against harsh environments and use, while also potentially making desired adjustments to the sound and feel of the switch actuator.



# CAPS | PART 1

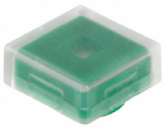
| E·SWITCH® | | DIMENSIONS | COLORS | SUPPORTED SWITCHES |
|---|---|---|---|---|
|  | 1C | L: 9.90mm<br>W: 5.00mm<br>H: 9.00mm | Black<br>Light Grey<br>Dark Grey<br>White<br>Blue<br>Red | LC<br>LL3301<br>PBH<br>TL1105<br>TL2201<br>TL4201<br>TL3301<br>TL58 |
|  | 1D | L: 5.00mm<br>W: 5.00mm<br>H: 9.00mm | Black<br>Light Grey<br>Dark Grey<br>White<br>Blue<br>Red | LC<br>LL3301<br>PBH<br>TL1105<br>TL2201<br>TL4201<br>TL3301<br>TL58 |
|  | 1J | L: 7.50mm<br>W: 7.50mm<br>H: 2.30mm | Black<br>White<br>Clear | TL1240 |
|  | 1R | L: 5.0mm<br>W: 5.0mm<br>H: 9.00mm | Black<br>White<br>Red | LC<br>LL3301<br>PBH<br>TL1105<br>TL2201<br>TL4201<br>TL3301<br>TL58 |
|  | 1S | L: 5.00mm<br>W: 5.00mm<br>H: 9.0mm | Black<br>White<br>Red | LC<br>LL3301<br>PBH<br>TL1105<br>TL3301<br>TL58 |
|  | 2J | L: 7.50mm<br>W: 7.50mm<br>H: 2.30mm | Black<br>Red | TL1240 |
|  | 320.08 | L: 11.94mm<br>W: 11.94mm<br>H: 5.97mm | Black<br>Grey<br>White<br>Blue<br>Red<br>Yellow<br>Green | 320<br>LC<br>TL1100<br>TL2201<br>TL4201 |
|  | 320.09 | L: 15.87mm<br>W: 15.87mm<br>H: 7.78mm | Black<br>Grey<br>White<br>Blue<br>Red<br>Yellow<br>Green | 320<br>LC<br>TL1100<br>TL2201<br>TL4201 |
|  | 320.094 | L: 11.85mm<br>W: 11.85mm<br>H: 7.55mm | Black<br>Grey | 320<br>LC<br>TL1100 |
|  | 4J | L: 12.00mm<br>W: 12.00mm<br>H: 5.60mm | Black<br>Grey<br>White<br>Red | 320<br>LC<br>TL1100 |

| E·SWITCH® | | DIMENSIONS | COLORS | SUPPORTED SWITCHES |
|---|---|---|---|---|
|  | 5J | L: 11.00mm<br>W: 5.00mm<br>H: 4.95mm | Black<br>Grey<br>White<br>Red<br>Blue | 320<br>LC<br>TL1100 |
|  | 6J | L: 8.00mm<br>W: 8.00mm<br>H: 5.00mm | Black<br>Grey<br>White<br>Red | 320<br>LC<br>TL1100 |
|  | 700C1 | L: 7.70mm<br>W: 7.70mm<br>H: 7.60mm | Black<br>Grey<br>White<br>Red<br>Green | 700 |
|  | 700C2 | L: 9.50mm<br>W: 9.50mm<br>H: 6.54mm | Black<br>Grey<br>White<br>Red<br>Green | 700 |
|  | 700C3 | L: 11.7mm<br>W: 11.7mm | Black<br>Grey<br>White<br>Red<br>Green | 700 |
|  | 800AC1 | L: 5.00mm<br>W: 5.00mm<br>H: 4.03mm | Black<br>Red<br>White<br>Green | 800A<br>800B |
|  | 800AC2 | L: 7.35mm<br>W: 7.35mm<br>H: 3.5mm | Black<br>Red<br>White<br>Green | 800A<br>800B |
|  | 800C1 | L: 5.0mm<br>W: 5.0mm<br>H: 4.03mm | Black<br>White<br>Red<br>Green | 800<br>800B |
|  | 800C2 | L: 7.45mm<br>W: 7.45mm<br>H: 3.50mm | Black<br>White<br>Red<br>Green | 800 |
|  | 800C3 | L:<br>W:<br>H: | Black | 800 |

***Specifications subject to change without notice***

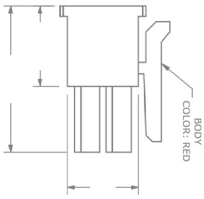
# CAPS | PART 2

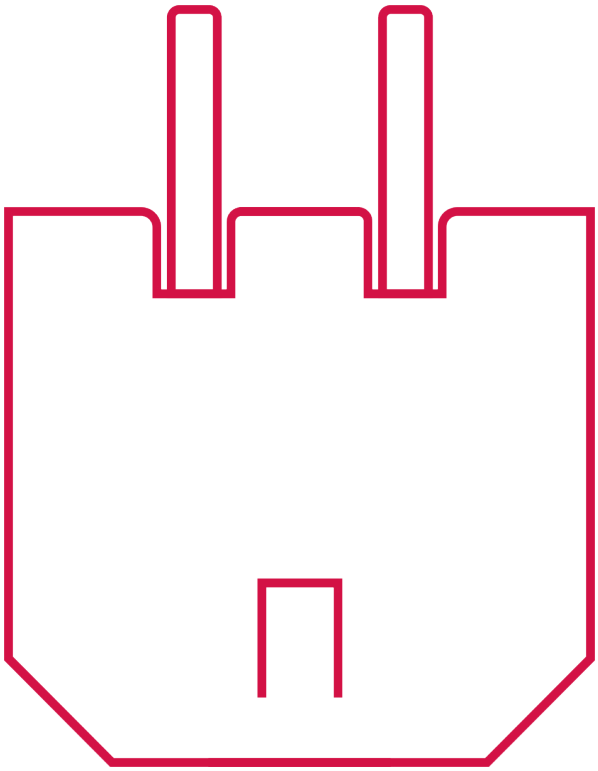
| E·SWITCH® | | DIMENSIONS | COLORS | SUPPORTED SWITCHES |
|---|---|---|---|---|
|  | 800UR1 | L: 4mm<br>W: 4mm<br>H: | Black<br>Red<br>White | 800U |
|  | 8J | L: 10.40mm<br>W: 6.05mm<br>H: 5.66mm | Black | 320<br>LC<br>TL1100 |
|  | R1 | L: 8.80mm<br>W: 8.80mm<br>H: 10.50mm | Black | PB400 |
|  | TA12 | L:<br>W: 5.70mm<br>H: 11.10mm | Black<br>Grey<br>White<br>Red | LC |
|  | TAC | L: 9.80mm<br>W: 5.50mm<br>H: 11.20mm | Black<br>Grey<br>White<br>Red | LC |
|  | TAD | L: 12.29mm<br>W: 7.18mm<br>H: 10.41mm | Black<br>Grey<br>White<br>Red | LC |
|  | TAG | L: 8.80mm<br>W: 8.80mm<br>H: 10.50mm | Black<br>Grey<br>White<br>Red | LC |
|  | TAM | L: 7.20mm<br>W: 7.20mm<br>H: 12.50mm | Black<br>Grey<br>White | TL1100C |

| E·SWITCH® | | DIMENSIONS | COLORS | SUPPORTED SWITCHES |
|---|---|---|---|---|
|  | TL3240R1 | L: 10.2mm<br>W: 10.2mm<br>H: 3.5mm | Black<br>Blue<br>Green<br>Ivory<br>Red<br>Yellow | TL3240 |
|  | TL3240S1 | L: 10.2mm<br>W: 10.2mm<br>H: 3.5mm | Black<br>Blue<br>Green<br>Ivory<br>Red<br>Yellow | TL3240 |
|  | TL3265 | S - 5mm<br>Diameter<br><br>T - 4.7mm<br>Diameter | Clear | TL3265 |

***Specifications subject to change without notice***

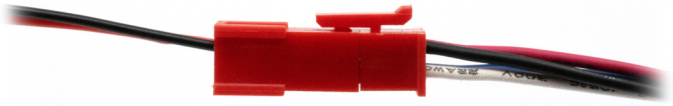
# BIG RED CONNECTORS™



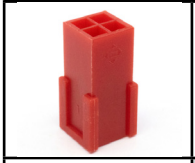
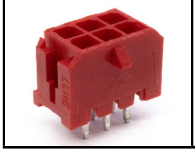



Connectors are designed to link various components within a circuit by establishing physical connections between wires, cables or devices and to facilitate the flow of signals or power.

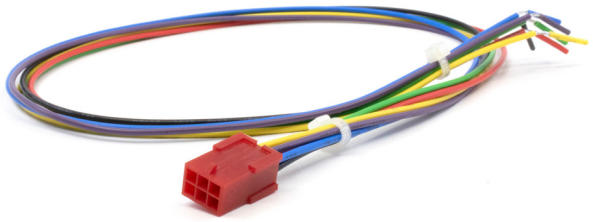
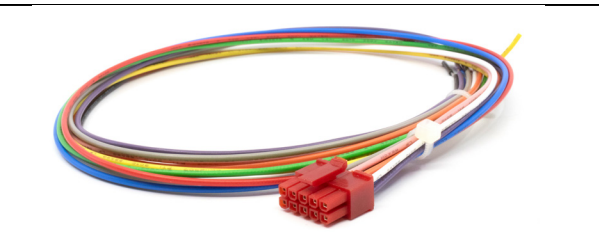
E-Switch's BIG RED CONNECTORS™ help support flexible routing and worry-free reliability while providing adaptable performance across a variety of industry applications.



# BIG RED CONNECTORS™

| E-SWITCH® | | CONNECTOR TYPE | FREE HANGING SPACING | POLES | SYSTEM | COMPATIBLE WITH |
|---|---|---|---|---|---|---|
|  | ECM3022 | Hanging Plug Housing | 3mm | 2, 4, 6, 10 | Wire-to-wire receptacle-to-plug | ECM3025 |
|  | ECM3025 | Free Hanging Receptacle Housing | 3mm | 2, 4, 6, 10 | Wire-to-wire receptacle-to-plug | ECM3022 ECM3026 |
|  | ECM3026 | PCB Header | 3mm | 2, 4, 6, 10 | Wire-to-wire receptacle-to-plug | ECM3025 |

## WIRE LEADS

| CONNECTOR SERIES | WIRE LEADS (500MM) |
|---|---|
| ECM3022 |  |
| ECM3025 |  |

***Specifications subject to change without notice***

# NOTES

E-SWITCH®

ENERGIZING INNOVATION

# OVERVIEW

E-Switch, headquartered in Minneapolis, Minnesota, is a leading provider of high-performance electromechanical switch solutions serving the telecom, technology, medical, electronics, instrumentation, industrial, audio/visual, appliance, and consumer markets. Since 1979, the company has built a reputation for engineering excellence, product reliability, and customer-focused innovation. With international offices in Singapore, Hong Kong, Germany and Italy, E-Switch supports a global customer base across North and South America, Europe, Asia and Australia.


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DIGITAL VERSION

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