

## Features

- UL / CUL / CAS / RoHS / REACH compliance
- DPDT contact configuration
- Power level and low circuit with multi-pole and multi-position, a variety of actuator, bushing and termination options

## RS PRO Toggle Switches

RS Stock No.: 0186259



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

## Product Description

*2A 250VAC/5A 125VAC Power Level, from SPST to 4PDT with a variety of options for actuator, bushing and terminal. Optional locking lever or safety cover to prevent from accidental actuation.*

*Suitable applications:*

- *Instrumentation*
- *Shut-off switch*
- *Medical equipment*
- *Telecommunication and Networking*

## Package Contain

|                             |
|-----------------------------|
| 1 x Miniature Toggle Switch |
| 2 x Nuts                    |
| 1 x Locking Ring            |
| 1 x Lock Washer             |

## General Specifications

|                        |             |
|------------------------|-------------|
| Contact Configuration  | DPDT        |
| Switch Operation       | ON-ON       |
| Mounting Type          | Panel Mount |
| Terminal Type          | Solder Lug  |
| Illuminated            | No          |
| Panel Cut Out Height   | 5mm         |
| Panel Cut Out Diameter | 6.35mm      |
| Actuator Length        | 10.4mm      |

## Electrical Specifications

|                        |                                                                                                           |
|------------------------|-----------------------------------------------------------------------------------------------------------|
| Contact Current Rating | 5Amps @ 125VAC or 28VDC<br>2Amps @ 250VAC                                                                 |
| Voltage Rating         | 2A 250VAC/5A 125VAC                                                                                       |
| Electrical Life        | 50,000 make-and-break cycles at full load                                                                 |
| Contact Resistance     | 10m-ohms max. initial @ 2-4VDC, 100mA for both silver and gold plated contacts                            |
| Insulation Resistance  | Apply 500VDC for 1min±5sec. b/w live parts and dead-metal parts. The measurement shall be 1000M-ohms min. |
| Dialectical Strength   | 1,500V (50Hz-60Hz) RMS @ sea level shall result no damage to parts arcing or flashover                    |
| Operating Temperature  | -30Celsius degree to +85Celsius degree                                                                    |

## Reliability Performance

|                           |                                                                                                                                                                                                                                                                                                                 |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Soldering Ability         | Per MIL-STD-202F method 208D, max soldering temperature @ 260Celsius degree, flux 5-10sec, duration of solder immersion 5+/-1sec. shall result no anti-soldering and the coverage of dipping into solder must be more than 90%                                                                                  |
| Soldering Heat Resistance | Max soldering temperature @ 260Celsius degree, immersion time 5+/-1sec, frequency of soldering process @ 2 times max.                                                                                                                                                                                           |
| Cold Test                 | Stored at temperature -30(+/-3)Celsius degree for 48 hours, then left at room temperature for an hr before electrical performance is measured.                                                                                                                                                                  |
| Hot Test                  | Stored at temperature 85(+/-3)Celsius degree for 48 hours, then left at room temperature for an hr before electrical performance is measured.                                                                                                                                                                   |
| Humidity Test             | Stored at temperature 85(+/-3)Celsius degree with relative humidity 90%~95% for 48 hours, then left at room temperature for an hr before electrical performance is measured.                                                                                                                                    |
| Salt Spray Resistance     | Stored at temperature @ 35(+/-3)Celsius degree, and salt solution concentration of 5% with full air temperature @ 47(+/-3) Celsius degree and air pressure 1.0kg for 48 hours. The switch shall result no corrosion as well as no apparent changes to its functional performance. Per ASTM-B117 & JIS-Z371 STD. |

## Material Characteristics

|                  |                                                                              |
|------------------|------------------------------------------------------------------------------|
| Case             | Diallyl phthalate (DAP)(UL 94V-0)                                            |
| Toggle Handle    | Brass, chrome plated<br>Zinc alloy, nickel plated (locking lever types only) |
| Bushing          | Brass, nickel plated                                                         |
| Housing          | Stainless steel                                                              |
| Movable Contact  | Copper alloy, silver plated                                                  |
| Terminal Contact | Copper alloy, silver plated                                                  |
| All Terminals    | Copper alloy, silver plated                                                  |
| Terminal Seal    | Epoxy sealed (std. type)                                                     |
| Hardware         | Nut(brass), locking ring/lock washer(stainless steel)                        |

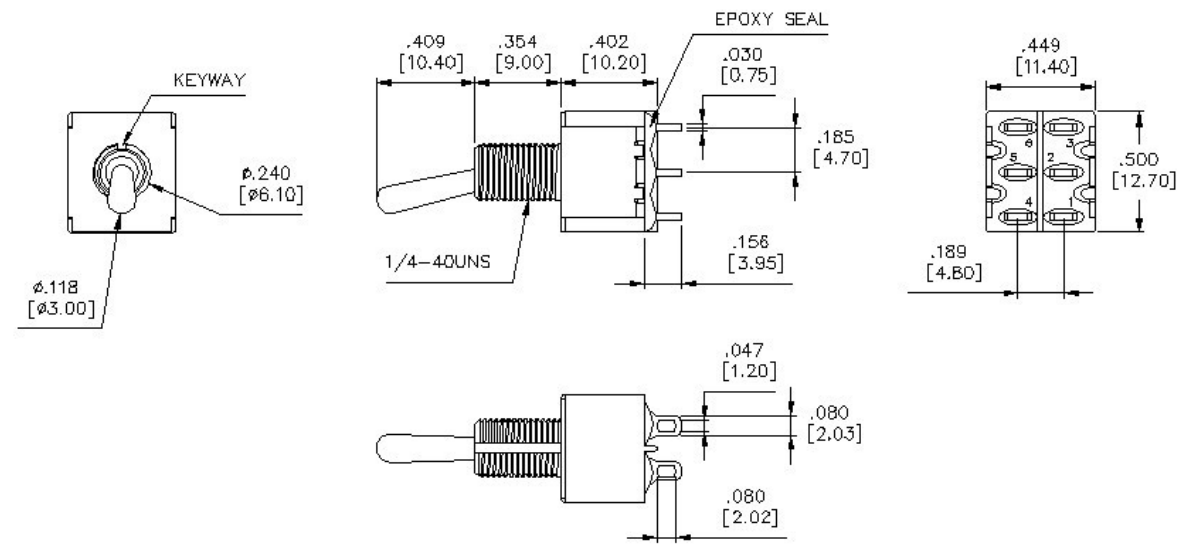
## Soldering & Cleaning Recommendation

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hand Soldering       | Max. temperature @ 350Celsius degree (662F)with continuous soldering time @ 3sec. max. Recommend soldering irons of 25-40 watts max. and solder of 0.030~0.040 dia.                                                                                                                                                                                                                                                                                          |
| Wave (Dip) Soldering | No-clean flux wave soldering is recommended so the switch does not require washing after soldering process. Noted, not to have flux migrate inside the switch through the top of the housing or actuator to prevent contamination. Max temperature @ 260Celsius degree (500F) for 10sec.                                                                                                                                                                     |
| Cleaning Process     | Noted, the switch is “not totally sealed” so it is important not to immerse/spray or clean unsealed areas of the switch during flux removal. To clean after soldering, keep the switch in an up-right position and tape-sealed the non-washable area such as cover and actuator to prevent the cleaning solution from entering into the body of the switch. Improper cleaning could cause switch deficiencies such as intermittence or open contact failures |

Approvals

|                           |                                                         |
|---------------------------|---------------------------------------------------------|
| Compliance/Certifications | UL / CUL 1054, CSA                                      |
| Declarations              | RoHS, REACH, CMRT, Section 54 of the Modern Slavery Act |

Drawing:



Schematic:

