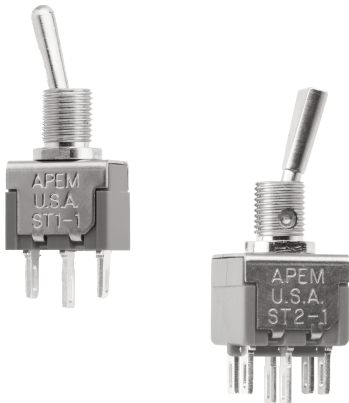


# ST series

## Miniature toggle switches

Distinctive features and specifications



- Dry circuit through power ratings.
- Ultra-rugged construction SPDT & DPDT models with numerous options.
- PC and panel mount models.

### ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
  - gold over nickel plated brass contacts : 0.4VA - 20V Max.
  - coin silver contacts: 6A 125VAC, 3A 250VAC, 7A 30VDC
- Initial contact resistance: 3 milliohms max. at 3VDC, 0.1 Amp.
- Insulation resistance: 2,000 MΩ min. between terminals & case ground.
- Dielectric strength: 2,000 VAC for 1 minute between terminals & case ground.
- Electrical life: 100,000 cycles at full load for ST1-1 and ST2-1, all other models 40,000 cycles

### MATERIALS

- Case : Diallyphthalate (DAP), color blue
- Actuator : Brass, bright nickel or chrome plated.
- Bushing: nickel plated brass
- Strap: stainless steel
- Contacts
  - B: Gold
  - Q: Coin silver
  - G: Gold over silver
- Terminal seal: epoxy

### GENERAL SPECIFICATIONS

- Operating temperature : -30°C to +85°C

### AGENCY APPROVAL



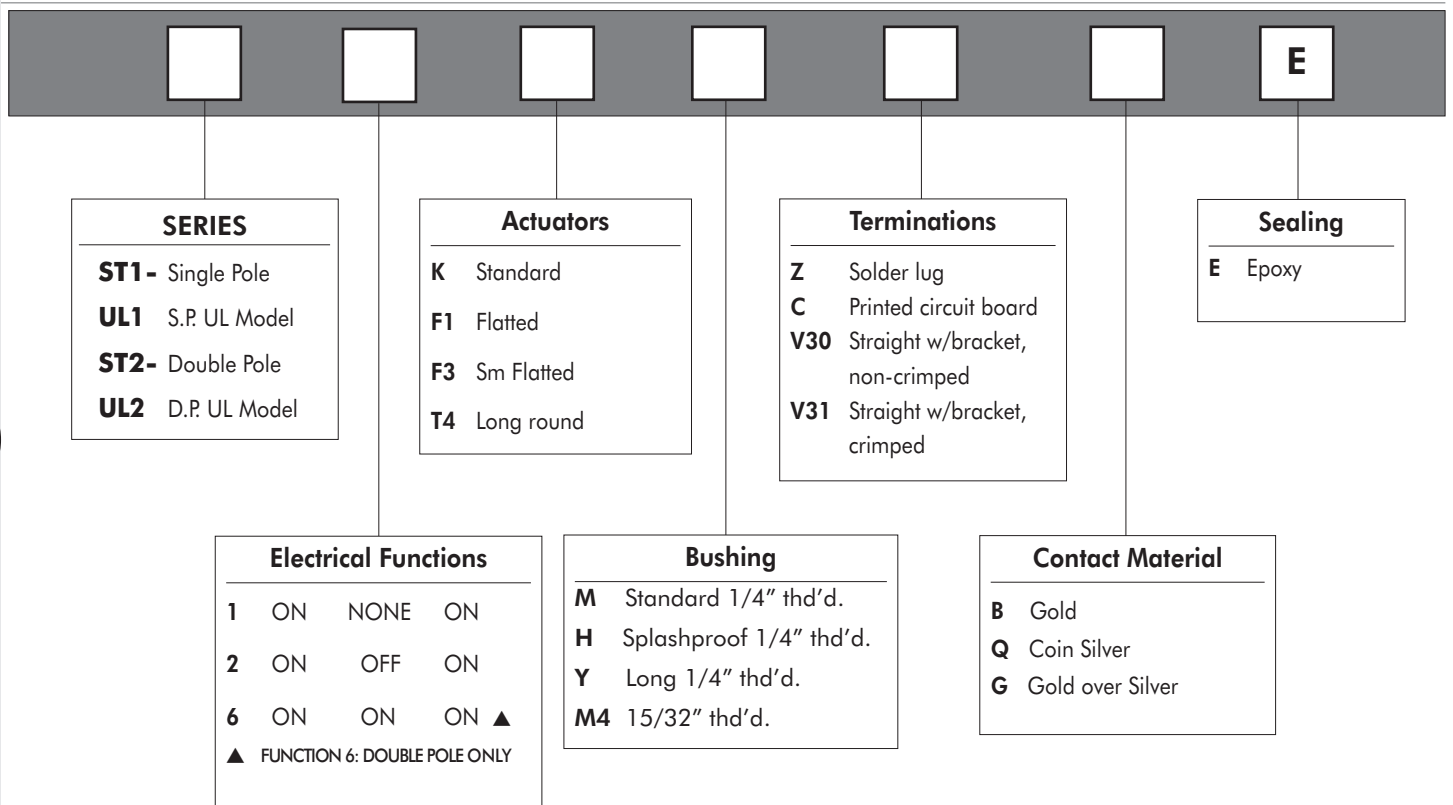
**Availability:** All models with coin silver contacts (Q) only.

**Marking:** To order switches marked UL use "UL" prefix for series designation. For CSA marking, complete appropriate box on ordering format.

# ST series

## Miniature toggle switches

### Overview



**Agency approval**

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**No approval**

/CSA CSA Approval  
(Q contact material only)

**Note: for UL, Select UL1 or UL2 series above**

#### ABOUT THIS SERIES

On the following pages, you will find successively :

- model structure of switches
- options in the same order as in above chart

**Dimensions** : first dimensions are in mm while inches are shown as bracketed numbers.



**Sealing boots** are available to protect the switches against dust and water. They are presented in section H



**Mounting accessories** : standard hardware supplied with all models with Ø 6,35 (1/4) threaded bushing : 2 - 5/16" hex nuts , 1 locking ring and 1 lockwasher. Standard and special hardware available are presented in section I.



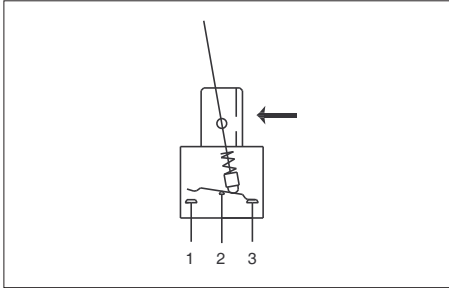
**Packaging unit** : 25 pieces for double pole  
50 pieces for single pole



**NOTICE** : please note that not all combinations of above numbers are available. Refer to the following pages for further information.

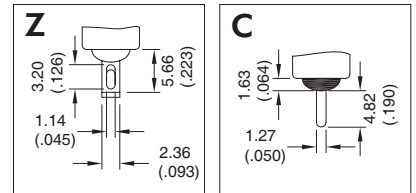
# ST series

Miniature toggle switches



### Terminations:

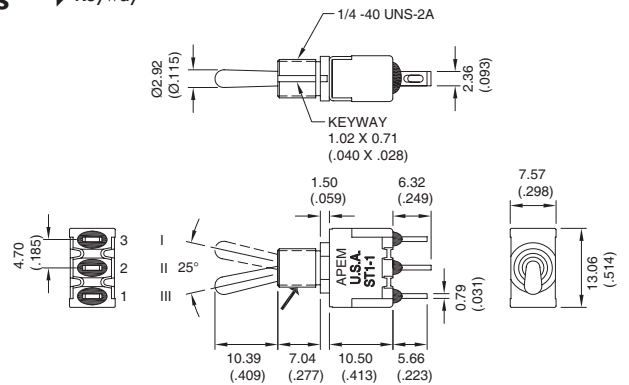
- Solder lug or straight PC terminals
- Epoxy sealed terminals standard



## Single pole panel mount with solder lug terminals → Keyway



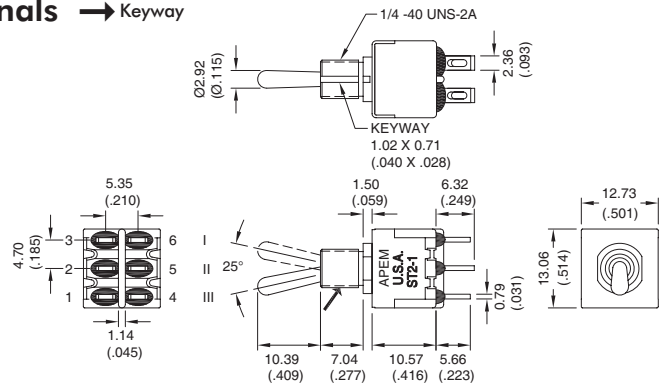
| MODEL NO.  | UL NO.    | I  | II  | III |
|------------|-----------|----|-----|-----|
| ST1-1KMZQE | UL11KMZQE | ON | -   | ON  |
| ST1-2KMZQE | UL12KMZQE | ON | OFF | ON  |



## Double pole panel mount with solder lug terminals → Keyway



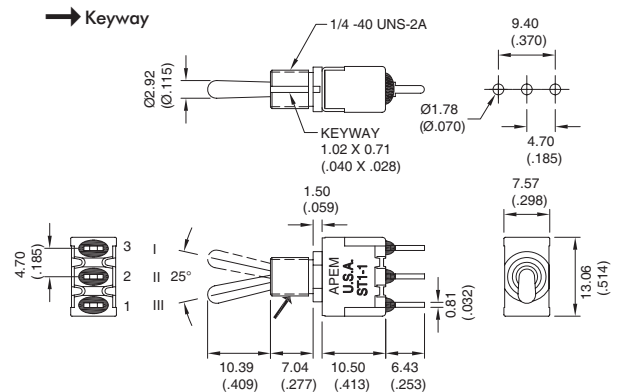
| MODEL NO.  | UL NO.    | I  | II  | III |
|------------|-----------|----|-----|-----|
| ST2-1KMZQE | UL21KMZQE | ON | -   | ON  |
| ST2-2KMZQE | UL22KMZQE | ON | OFF | ON  |
| ST2-6KMZQE | UL26KMZQE | ON | ON  | ON  |



## Single pole straight PC terminals



| MODEL NO.  | UL NO.    | I  | II  | III |
|------------|-----------|----|-----|-----|
| ST1-1KMCBE | UL11KMCQE | ON | -   | ON  |
| ST1-2KMCBE | UL12KMCQE | ON | OFF | ON  |



# ST series

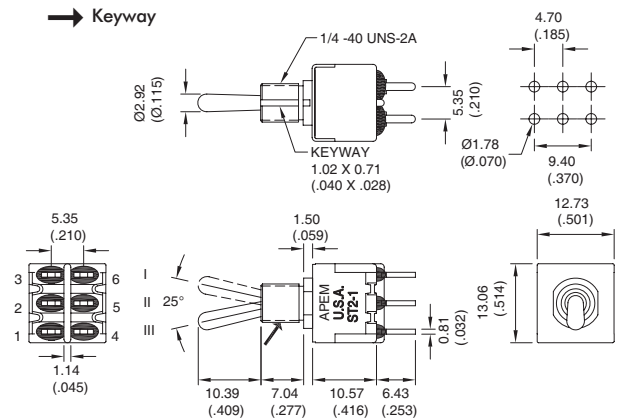
## Miniature toggle switches

### Double pole straight PC terminals



| MODEL NO.         | UL NO.           | I   | II  | III |
|-------------------|------------------|-----|-----|-----|
|                   |                  | 1-2 | 1-2 | 2-3 |
|                   |                  | 4-5 | 5-6 | 5-6 |
| <b>ST2-1KMCBE</b> | <b>UL21KMCQE</b> | ON  | -   | ON  |
| <b>ST2-2KMCBE</b> | <b>UL22KMCQE</b> | ON  | OFF | ON  |
| <b>ST2-6KMCBE</b> | <b>UL26KMCQE</b> | ON  | ON  | ON  |

#### → Keyway

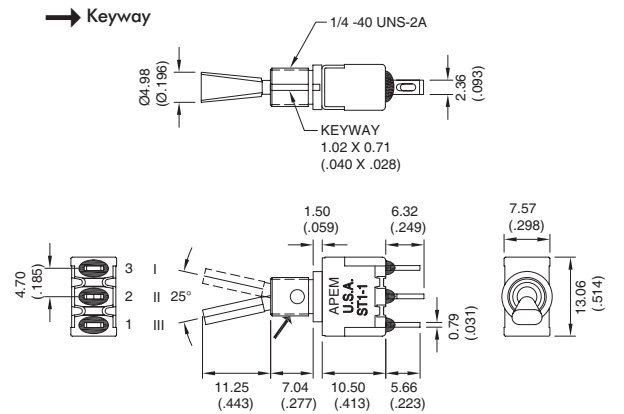


### Single pole panel mount flatted actuator



| MODEL NO.          | UL NO.            | I   | II  | III |
|--------------------|-------------------|-----|-----|-----|
|                    |                   | 1-2 | 1-2 | 2-3 |
| <b>ST1-1F1MZQE</b> | <b>UL11F1MZQE</b> | ON  | -   | ON  |
| <b>ST1-2F1MZQE</b> | <b>UL12F1MZQE</b> | ON  | OFF | ON  |

#### → Keyway

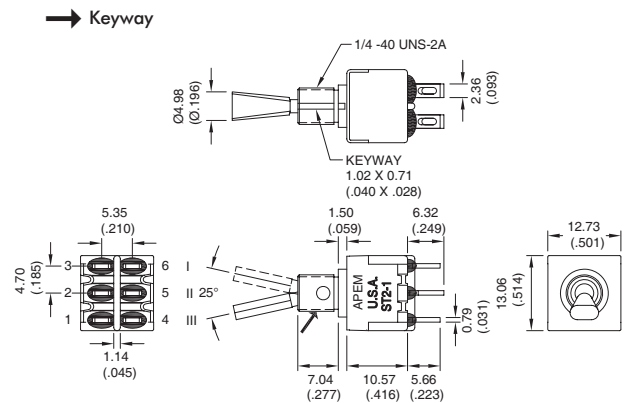


### Double pole panel mount flatted actuator



| MODEL NO.          | UL NO.            | I   | II  | III |
|--------------------|-------------------|-----|-----|-----|
|                    |                   | 1-2 | 1-2 | 2-3 |
|                    |                   | 4-5 | 5-6 | 5-6 |
| <b>ST2-1F1MZQE</b> | <b>UL21F1MZQE</b> | ON  | -   | ON  |
| <b>ST2-2F1MZQE</b> | <b>UL22F1MZQE</b> | ON  | OFF | ON  |
| <b>ST2-6F1MZQE</b> | <b>UL26F1MZQE</b> | ON  | ON  | ON  |

#### → Keyway

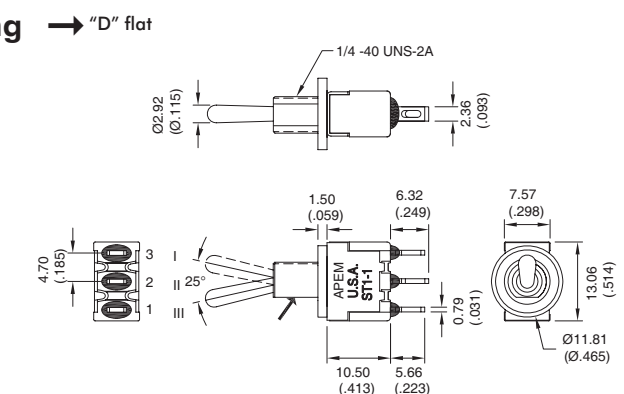


### Single pole panel mount with splashproof bushing → "D" flat



| MODEL NO.         | UL NO.           | I   | II  | III |
|-------------------|------------------|-----|-----|-----|
|                   |                  | 1-2 |     | 2-3 |
| <b>ST1-1KHZQE</b> | <b>UL11KHZQE</b> | ON  | -   | ON  |
| <b>ST1-2KHZQE</b> | <b>UL12KHZQE</b> | ON  | OFF | ON  |

#### → "D" flat



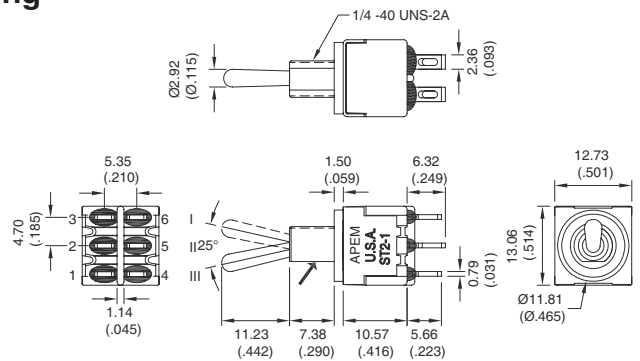
# ST series

## Miniature toggle switches

### Double pole panel mount with splashproof bushing → "D" flat

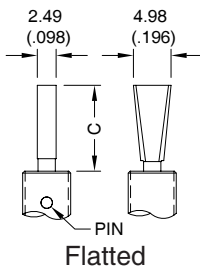


| MODEL NO.  | UL NO.    | I  | II  | III |
|------------|-----------|----|-----|-----|
| ST2-1KHZQE | UL21KHZQE | ON | -   | ON  |
| ST2-2KHZQE | UL22KHZQE | ON | OFF | ON  |
| ST2-6KHZQE | UL26KHZQE | ON | ON  | ON  |

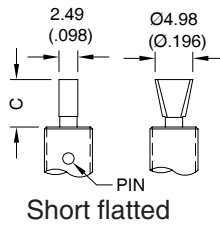


### Actuator

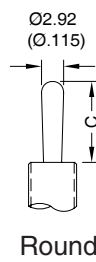
F1



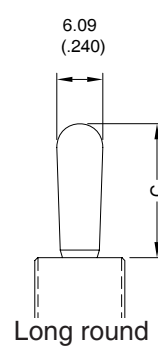
F3



K

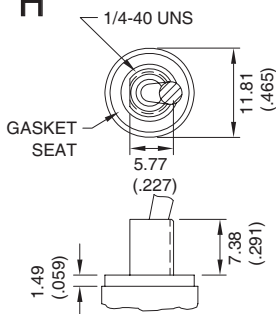


T4

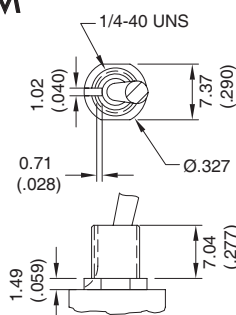


### Bushing options

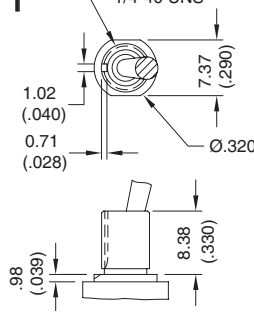
H



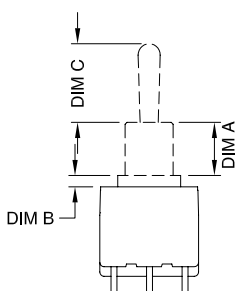
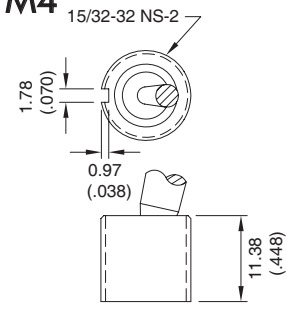
M



Y



M4

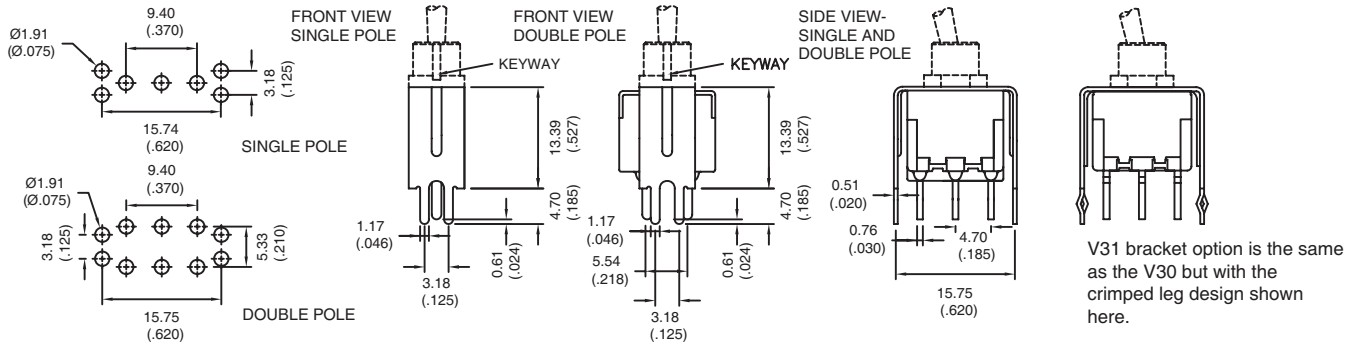


| Bushing Option | Bushing Dims. |             | Actuator length Dim C |             |              |              |
|----------------|---------------|-------------|-----------------------|-------------|--------------|--------------|
|                | Dim A         | Dim B       | F1                    | F3          | K            | T4           |
| H              | 7.37 (.290)   | 1.52 (.060) | N/A                   | N/A         | 10.41 (.410) | N/A          |
| M              | 7.04 (.277)   | 1.52 (.060) | 11.43 (.450)          | 6.35 (.250) | 10.41 (.410) | N/A          |
| Y              | 8.38 (.330)   | 1.02 (.040) | N/A                   | N/A         | 10.41 (.410) | N/A          |
| M4             | 11.38 (.448)  | -           | N/A                   | N/A         | N/A          | 17.45 (.687) |

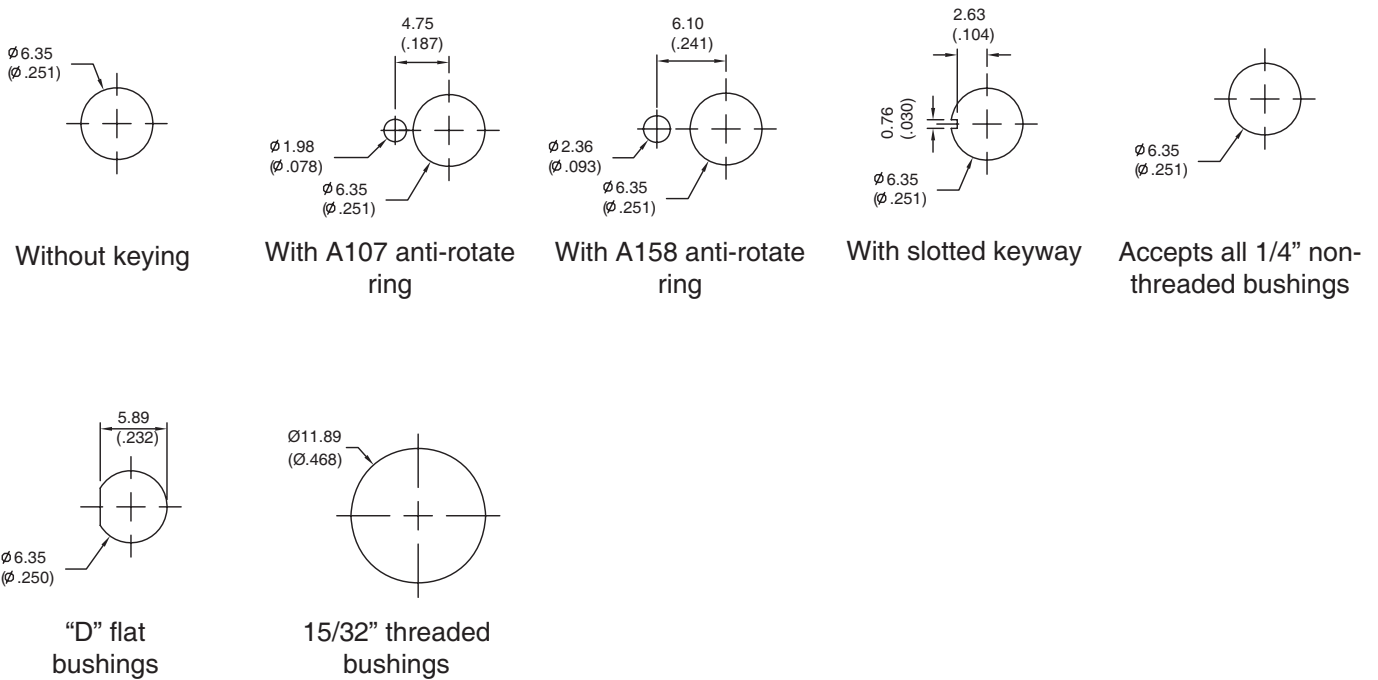
# ST series

## Miniature toggle switches

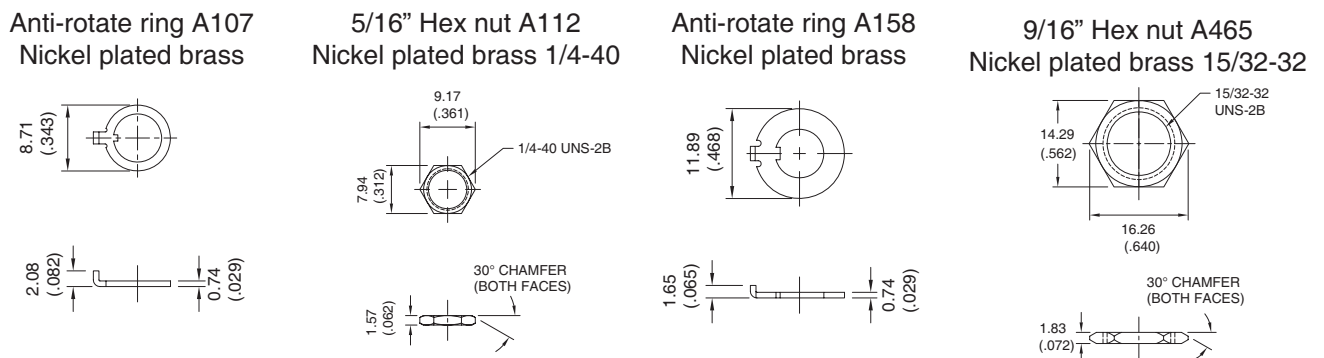
### V30 bracket option



### Panel cut-outs



### Hardware



# ST series

## Miniature toggle switches

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### Contact material specs.

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- B** Dry circuit - gold over nickel over brass.  
RATING: 0.4 Volt-Amps (VA) max. at 20 V max.  
ELECTRIC LIFE: 100,000 cycles min. (ST1-1 & ST2-1 only - other models 40,000 cycles min.)
- Q** Power circuit - coin silver.  
RATING: 6 Amps at 125 VAC, 3 Amps at 250 VAC or 7 Amps at 30 VDC (resistive loads).  
ELECTRIC LIFE: 100,000 cycles min. (ST1-1 & ST2-1 only - other models 40,000 cycles min.)
- G** Dry circuit or power circuit - gold over nickel over coin silver.  
RATINGS & ELECTRIC LIFE: Same as B & Q above - i.e. - can be used in either dry circuit or power circuit, however once used in power circuit, switch cannot be re-used in dry circuit. This option satisfies those customers who have both dry circuit and power circuit requirements, but prefer to inventory only one switch for both.

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### UL & CSA options

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- UL** For power circuits - coin silver  
RATING: 6 Amps at 125 VAC or 3 Amps at 250 VAC (75% power factor).  
Underwriter Laboratories file no. E66367. Note - applicable only to terminations with coin silver contacts (Q option).
- CSA** For power circuits - coin silver  
RATING: 6 Amps at 125 VAC or 3 Amps at 250 VAC (75% power factor). Canadian Standards Association file no. LR54592-1. Note - applicable only to terminations with coin silver contacts (Q option) as CSA recognizes switches for power applications only.  
Note- Double pole switches with solder lug terminals are not CSA recognized .