

# 300 & 400 series

## Miniature pushbutton switches

Distinctive features and specifications



- Dry circuit through power ratings .
- Compact size.
- Panel, panel & PC and PC mounting models.

### ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
  - gold over nickel plated brass contacts : 0.4VA - 20V Max.
  - coin silver contacts : 1A 125VAC or 28VDC, 0.5A 250VAC, 3A 125VAC or 28VDC,
- Initial contact resistance : 10 milliohms max. at 3VDC, 0.1 Amp.
- Insulation resistance : 10,000 MΩ min.
- Dielectric strength : 1,000 Vrms min at sea level.
- Electrical life :

Model	Contacts	Rating	Number of cycles
300	(Q) coin silver	1A 125VAC or 28 VDC	250,000
300	(Q) coin silver	3A 125VAC or 28VDC	10,000
300	(B) gold	0.4VA max. at 20V	250,000
400	(Q) coin silver	1A 125VAC or 28 VDC	40,000
400	(Q) coin silver	3A 125VAC or 28VDC	10,000
400	(B) gold	0.4VA max. at 20V	40,000

### MATERIALS

- Base: diallyphthalate (DAP)
- Actuator: nylon
- Bushing: nickel plated brass
- Contacts
  - B:** Gold
  - Q:** Coin silver
- Terminal seal: epoxy
- Spring bracket: stainless steel
- Support bracket: brass or tin plated steel
- Bezel and cap: nylon

### GENERAL SPECIFICATIONS

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

### AGENCY APPROVAL



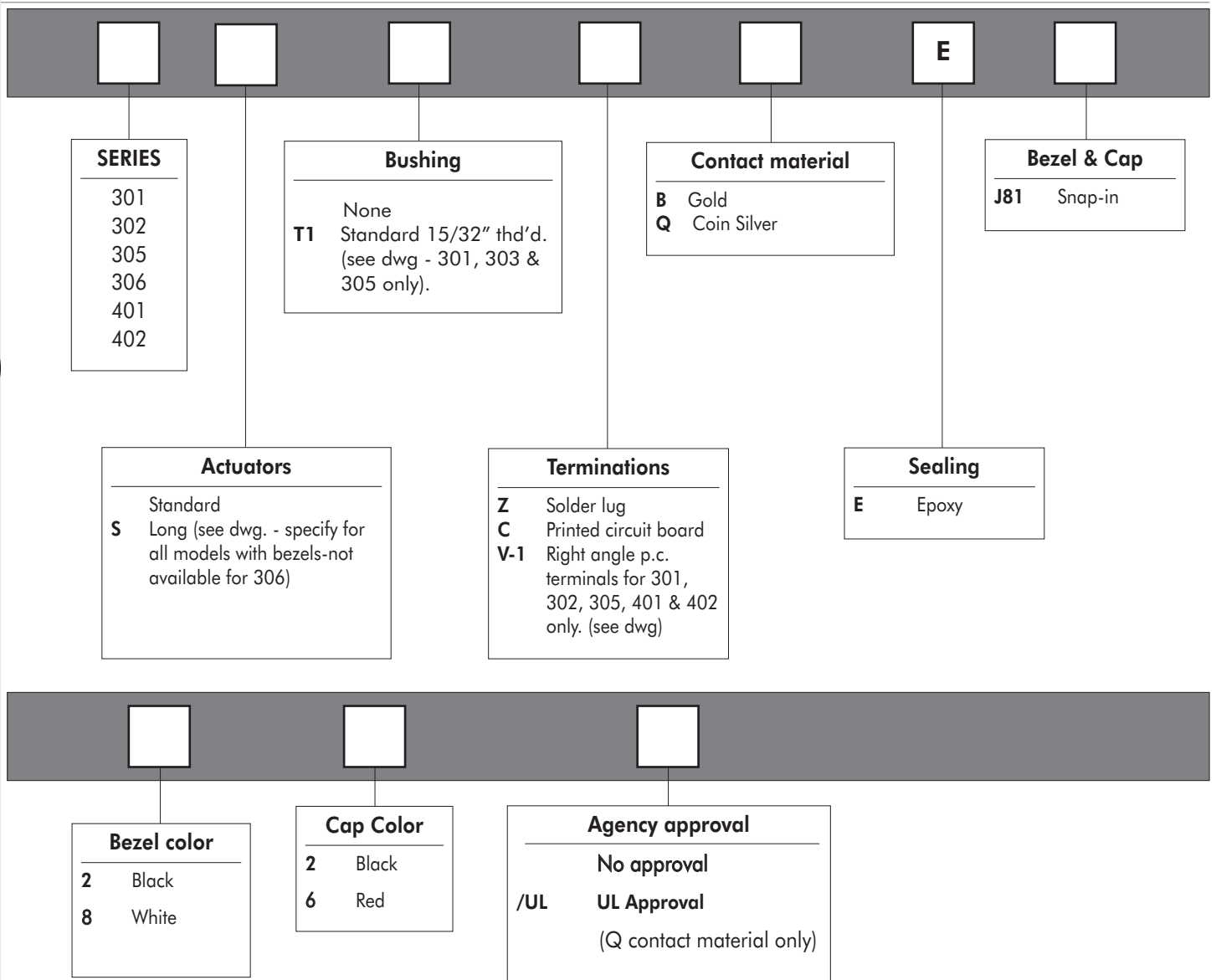
**Availability:** All models with coin silver contacts (Q) only.

**Marking:** To order switches marked UL, complete appropriate box on ordering format.

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### Overview



#### ABOUT THIS SERIES

On the following pages, you will find successively :

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

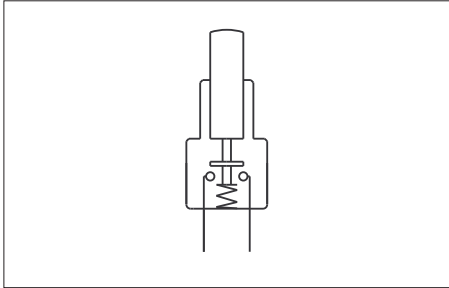
**Dimensions** : first dimensions are in mm while inches are shown as bracketed numbers.



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

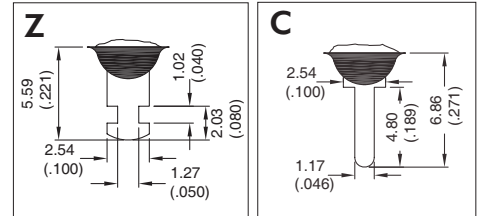
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## Miniature pushbutton switches



### Terminations

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



### Normally open with overtravel: 301



#### Solder lug terminals

301ZQE Normally Open

301ZBE Normally Open

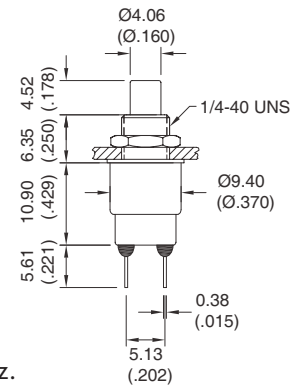
#### PC terminals

301CQE Normally Open

301CBE Normally Open

Total travel: 2.7 (.110)  
Over travel: 0.51 (.020)

Actuation force: 8.5oz. ± 4oz.



### Normally open no overtravel: 302



#### Solder lug terminals

302ZQE Normally Open

302ZBE Normally Open

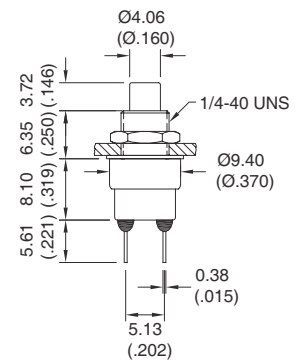
#### PC terminals

302CQE Normally Open

302CBE Normally Open

Total travel: 1.52 (.060)

Actuation force: 10oz. ± 4oz.



### Normally open with greater overtravel: 305



#### Solder lug terminals

305ZQE Normally Open

305ZBE Normally Open

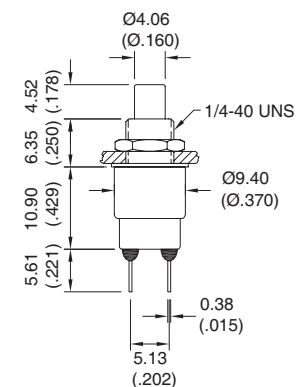
#### PC terminals

305CQE Normally Open

305CBE Normally Open

Total travel: 2.7 (.110)  
Over travel: 1.20 (.075)

Actuation force: 8oz. ± 4oz.




# 300 & 400 series


## Miniature pushbutton switches

### Normally open with sealed contact area: 306





#### Solder lug terminals

306ZQE  Normally Open

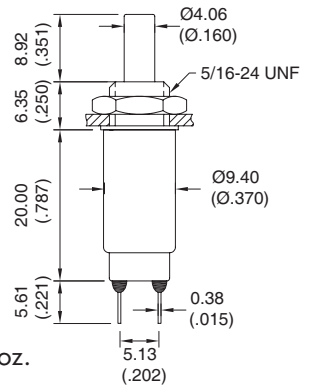
306ZBE  Normally Open

#### PC terminals

306CQE  Normally Open

306CBE  Normally Open

Total travel: 8.74 (.310)  
Over travel: 6.35 (.250)  
Actuation force at full travel: 9oz.



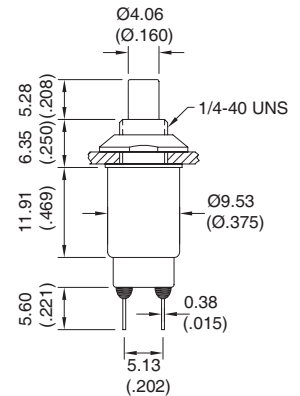
### Normally open snap-action mechanism:400



401  ON - OFF

402  MOM - OFF

Pretravel: 0.66 (.026)  
Actuation travel: 2.60 (.106)  
Total travel: 3.48 (.137)  
Over travel: 0.79 (.031)  
Actuation force: 22oz.

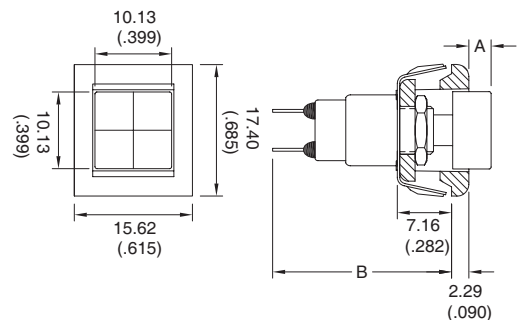


▲ For complete part number, and full list of options see part number breakdown at the beginning of this section

### Snap-in bezel



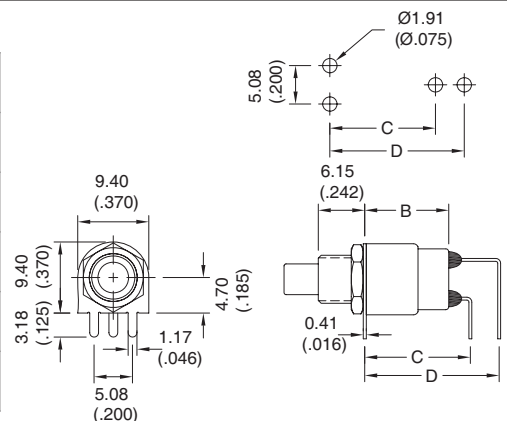
Model no.	Dim A	Dim B
301	2.74 (.108)	23.60 (.929)
302	2.16 (.085)	20.75 (.817)
305	2.74 (.108)	23.60 (.929)
401	3.68 (.145)	29.00 (1.142)
402	3.68 (.145)	29.00 (1.142)



### Right angle terminal with bracket



Model no.	Dim B	Dim C	Dim D
301	11.15 (.439)	13.97(.550)	16.51 (.650)
302	8.30 (.327)	11.43 (.450)	13.97(.550)
305	11.15 (.439)	13.97(.550)	16.51 (.650)
401	16.59 (.653)	19.05 (.750)	21.59 (.850)
402	16.59 (.653)	19.05 (.750)	21.59 (.850)





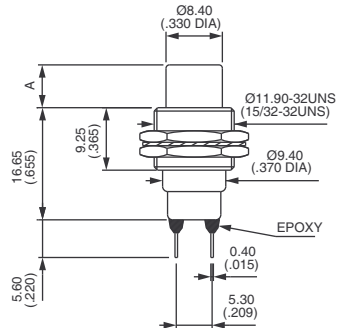
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### T1 option with 15/32 bushing

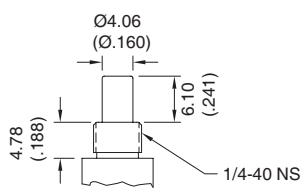


Model no.	Dim A
301	6.35 (.250)
305	6.35 (.250)

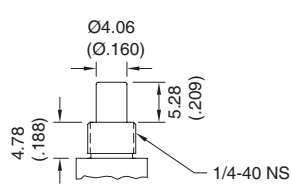


T1 option available only for 301 and 305 models

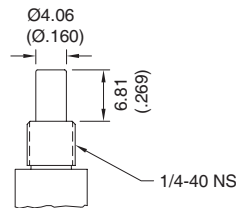
### Option S long actuator



301 & 305

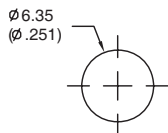


302

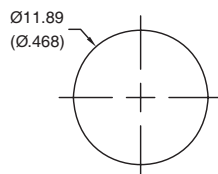


401 & 402

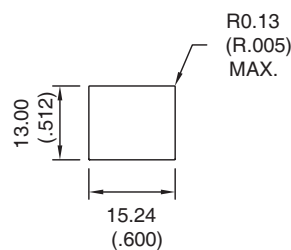
### Panel cut-outs



1/4" threaded bushings



15/32" threaded bushings



Snap-in bezel

### UL option



**UL** For power circuits - coin silver  
 RATING: 0.5 Amps at 125 VAC (75% power factor).  
 Underwriter Laboratories file no. E66367. Note - applicable only to terminations with coin silver contacts (Q option).