

# PNP Series Sealed Pushbutton Switch



A  
Pushbutton

## Features/Benefits

- Snap-Action provides positive tactile feedback
- IP68 sealed to endure harsh environments
- 1,000,000 life cycle
- Up to 5A resistive load
- Multiple housing styles
- Various termination types and wirelead options are also available
- RoHS compliant

## Typical Applications

- Control Grips
- Off-Road Panels
- Heavy Equipment
- Industrial Instruments
- Lifts
- Conveyor Controls



## Specifications

FUNCTION: SPST, SPDT Double Break (Form Z) Momentary  
CONTACT ARRANGEMENT: N.O. and N.C.  
MOUNTING TYPE: Threaded front mount  
TORQUE SPEC FOR THREADED BODY: Do not exceed 10 in-lbs (1.35 N-m)

DIELECTRIC STRENGTH: 1000 V AC for 1 min.  
INSULATION RESISTANCE: 1 G  $\Omega$  @ 500 VDC  
INITIAL CONTACT RESISTANCE 50 m $\Omega$  max (without wire leads)  
BOUNCE TIME: <5 ms

## Mechanical

OPERATING LIFE: 1,000,000 cycles  
TOTAL TRAVEL: 2 mm max.  
OPERATING POINT 0.9  $\pm$  0.25 mm  
OVER TRAVEL: 0.25 mm min.  
OPERATING FORCE: 3N  $\pm$  1.5N  
8N  $\pm$  1.5N  
VIBRATION: 10-500 Hz 10g Max  
SHOCK: 50g 11ms sawtooth wave

## Materials

HOUSING: PBT/PC  
BASE: PBT  
CAP: PBT  
ACTUATOR: PBT  
INTERNAL SEAL: Silicone rubber  
TERMINALS: Copper with silver nickel inlay, silver plating  
MOVABLE CONTACT: Copper alloy, gold over silver plating  
TERMINAL SEAL: Epoxy

## Electrical

CONTACT RATING:  
Option "Q" Silver  
5A/32 VDC resistive (25,000 cycles)  
3A/32 VDC resistive (25,000 cycles)  
Option "G" Gold over Silver  
10mA/5 VDC resistive (1,000,000 cycles)

## Operating Environment

OPERATING TEMPERATURE: -40°C to +85°C  
ESD PROTECTION: 15KV min.  
SEALING: IP68

**NOTE:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, please contact Customer Service.

## Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box.



### Designation

**PNP** PNP Series

### Operating Force

**3** 3 Newtons  
**8** 8 Newtons

### Actuator Style

**S** Standard  
**E** Extended (D housing style only)  
**N** None

### Actuator Color \*

**0** No Cap  
**1** White  
**2** Black (STD)  
**3** Red  
**4** Orange  
**5** Yellow  
**6** Green  
**7** Blue  
**9** Gray

### Housing Style

**T** Standard threaded mount  
**D** Dome bezel

### Housing Color

**2** Black (STD)

### Terminal Seal

**E** Epoxy  
All models are epoxy sealed

### Contact Material

**Q** Silver (STD)  
**G** Gold over silver

### Termination

**02** PC Pin (G contact material only)  
**03** Solder Lug (STD)  
**W2** 2 x 12" 22 AWG UL1569 wire (overmolded)  
**W3** 3 x 12" 22 AWG UL1569 wire (overmolded)  
**W4** 4 x 12" 22 AWG UL1569 wire (overmolded)

### Circuit

**C** SPDT - Double Break  
**W** SPST NC - Double Break  
**Y** SPST NO - Double Break

\* Additional colors available, please contact Customer Service



Dimensions are shown: mm (inches)  
Specifications and dimensions subject to change



3 Dec 20

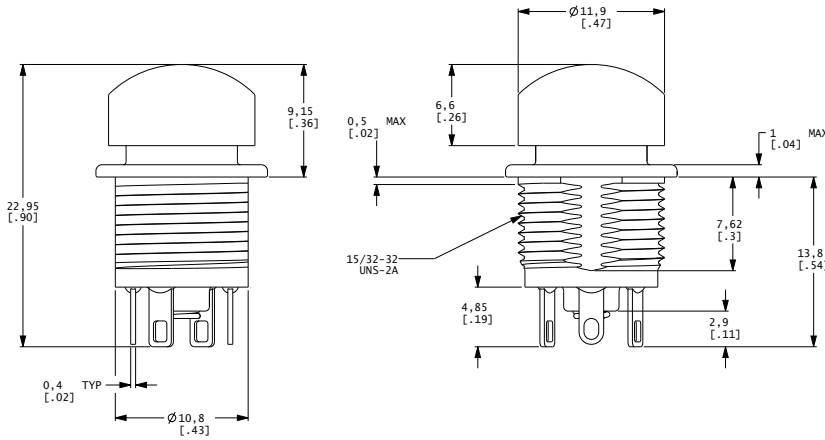


# PNP Series Sealed Pushbutton Switch

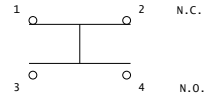
Pushbutton

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## STANDARD VIEW



ELECTRICAL SCHEMATIC



## OPERATING FORCE

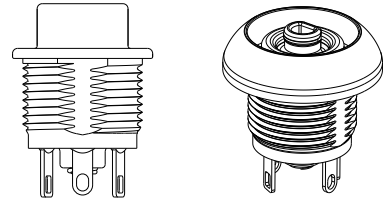
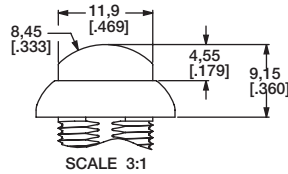
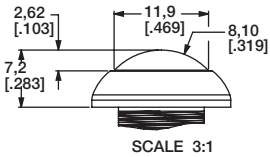
OPTION CODE	OPERATING FORCE
<b>3</b>	3 N
<b>8</b>	8 N

## ACTUATOR STYLE

**S** STANDARD

**E** EXTENDED (D HOUSING STYLE ONLY)

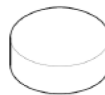
**N** NO CAP



## ACTUATOR COLOR

OPTION CODE	ACTUATOR COLOR
<b>0</b>	No color
<b>1</b>	White
<b>2</b>	Black
<b>3</b>	Red
<b>4</b>	Orange
<b>5</b>	Yellow
<b>6</b>	Green
<b>7</b>	Blue
<b>9</b>	Gray

\* Cap may be ordered separately



### PART NUMBER

285E01000	White
285E02000	Black
285E03000	Red
285E04000	Orange
285E05000	Yellow
285E06000	Green
285E07000	Blue
285E09000	Gray
824D01000	White
824D02000	Black
824D03000	Red
824D04000	Orange
824D05000	Yellow
824D06000	Green
824D07000	Blue
824D09000	Gray



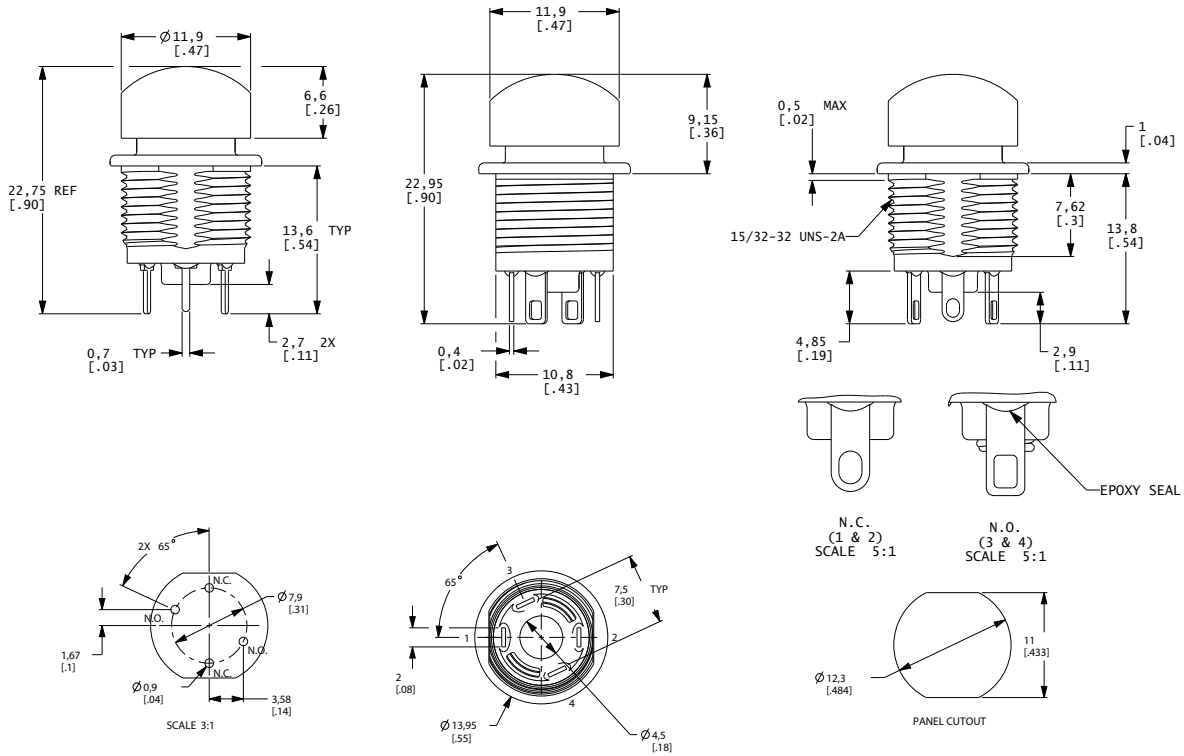
3 Dec 20

Dimensions are shown: mm (inches)  
Specifications and dimensions subject to change

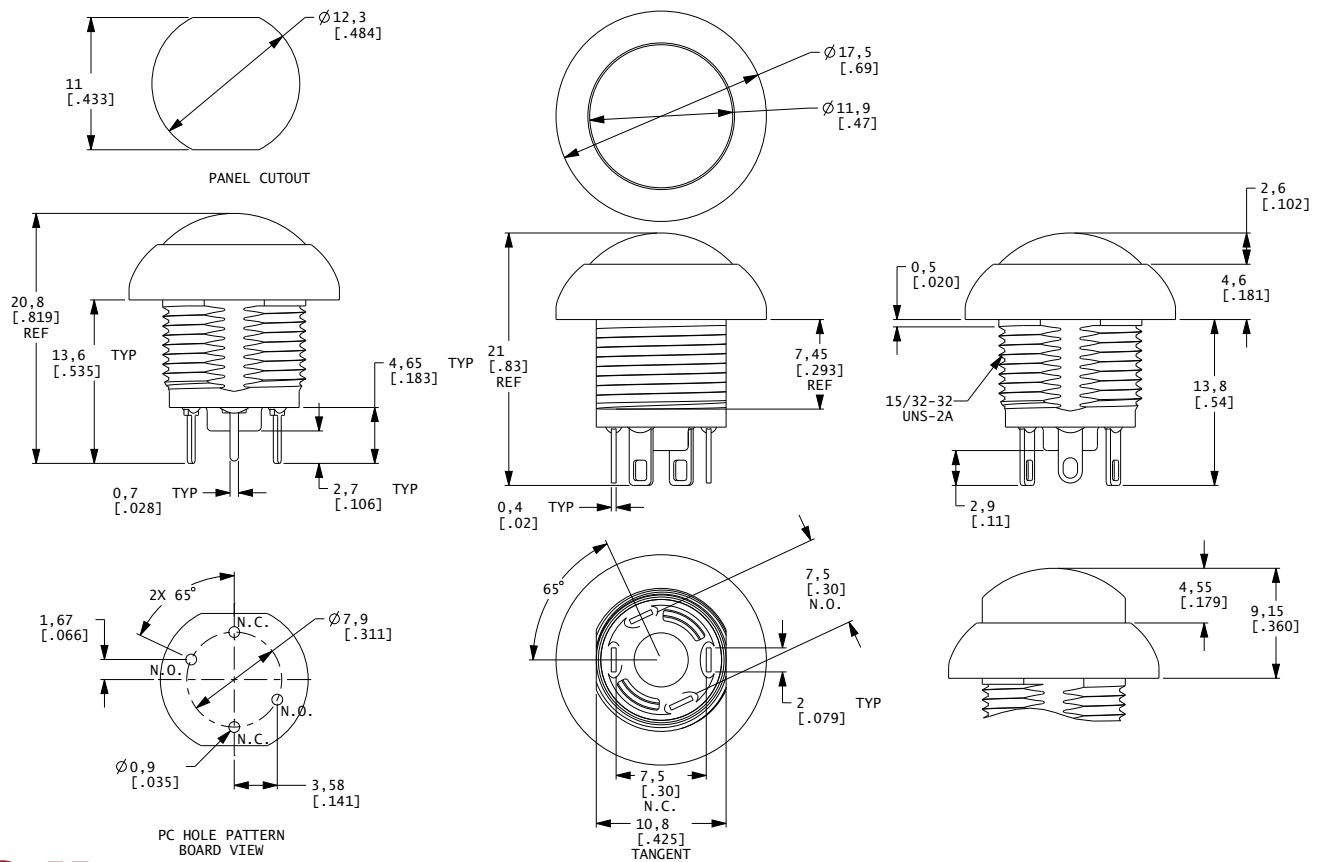


### HOUSING STYLE

#### T STANDARD THREADED MOUNT



#### D DOME BEZEL





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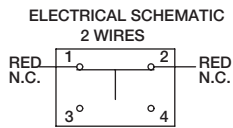
Pushbutton  
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## HOUSING COLOR

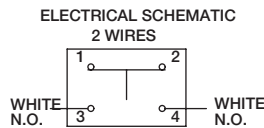
OPTION CODE	COLOR
<b>2</b>	Black (STD)

## CIRCUIT

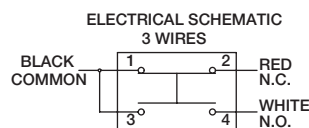
**W** SPST NC - Double Break



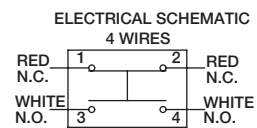
**Y** SPST NO - Double Break



**C** SPDT - Double Break

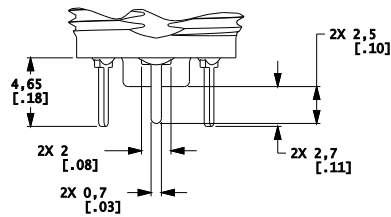


**C** SPDT - Double Break

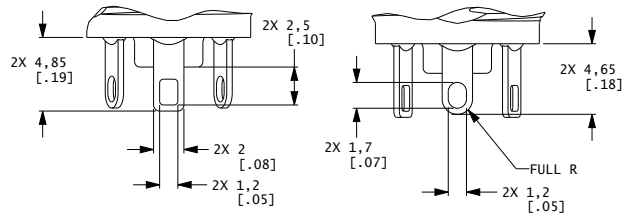


## TERMINATION

**02** PC PIN



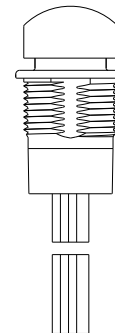
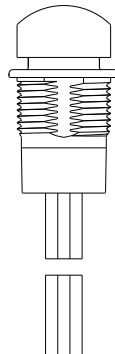
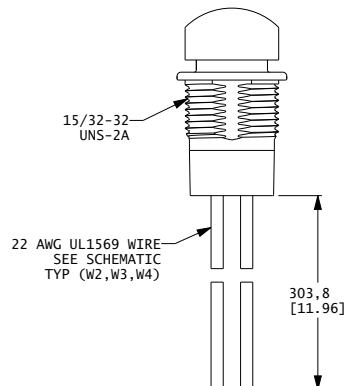
**03** SOLDER LUG (STD)



**W2** 2 x 12" 22 AWG UL1569 wire (overmolded)

**W3** 3 x 12" 22 AWG UL1569 wire (overmolded)

**W4** 4 x 12" 22 AWG UL1569 wire (overmolded)



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## CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL
<b>Q</b>	Silver (STD)
<b>G</b>	Gold over silver

## TERMINAL SEAL

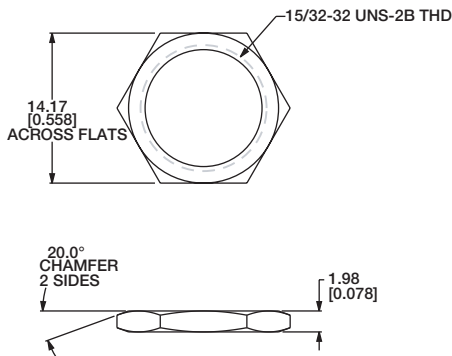
### E EPOXY

All models are epoxy sealed

## HARDWARE

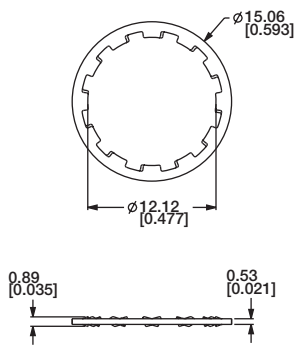
### HEX NUT

707100201 Nickel-plated



### LOCKWASHER

700302202



### PANEL GASKET

851D02000

