

# 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

**O2** PC Pin (G contact material only)  
**O3** 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

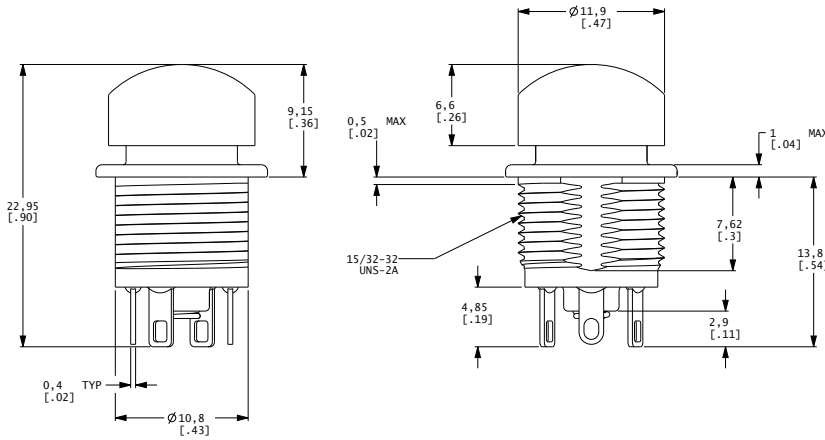


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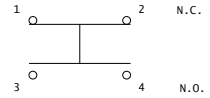
Pushbutton

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## STANDARD VIEW



ELECTRICAL SCHEMATIC



## OPERATING FORCE

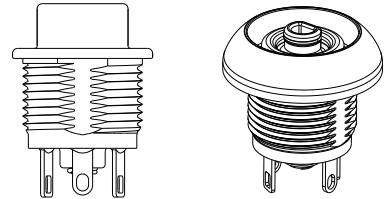
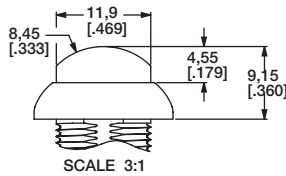
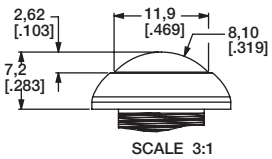
OPTION CODE	OPERATING FORCE
<b>3</b>	3 N
<b>8</b>	8 N

## 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  
285E02000  
285E03000  
285E04000  
285E05000  
285E06000  
285E07000  
285E09000

### COLOR

White  
Black  
Red  
Orange  
Yellow  
Green  
Blue  
Gray

824D01000  
824D02000  
824D03000  
824D04000  
824D05000  
824D06000  
824D07000  
824D09000

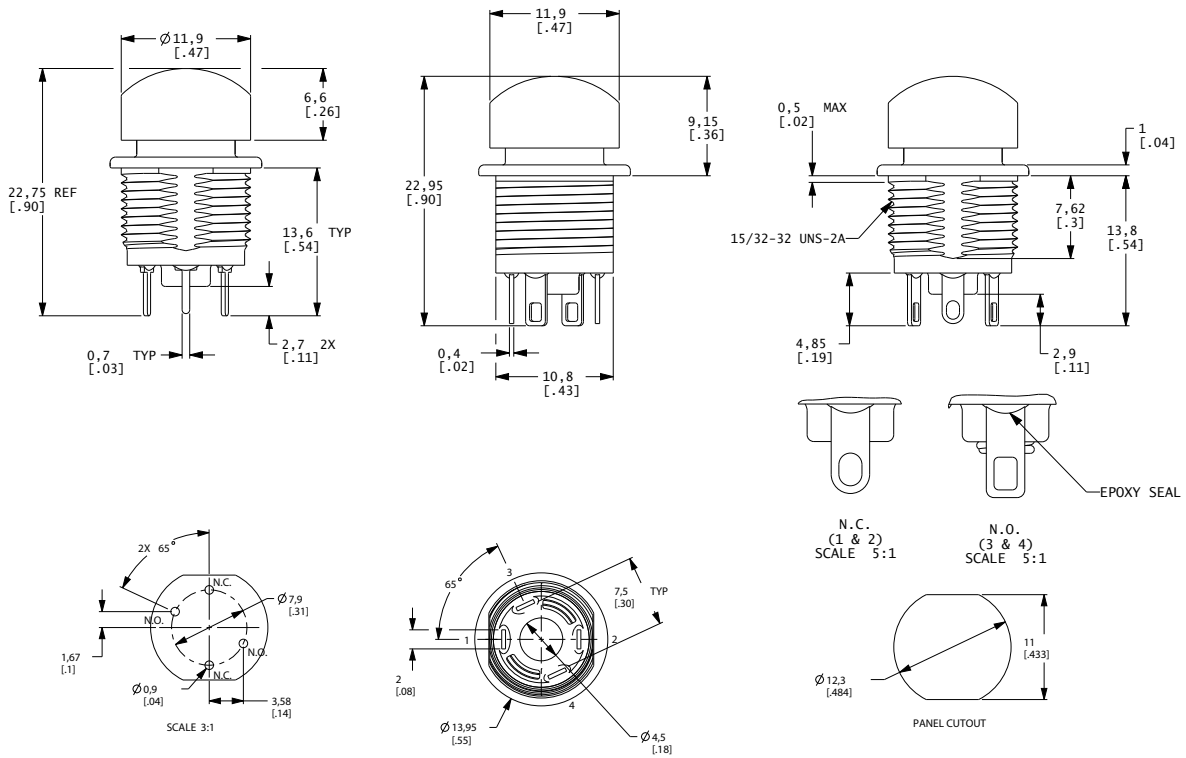
White  
Black  
Red  
Orange  
Yellow  
Green  
Blue  
Gray



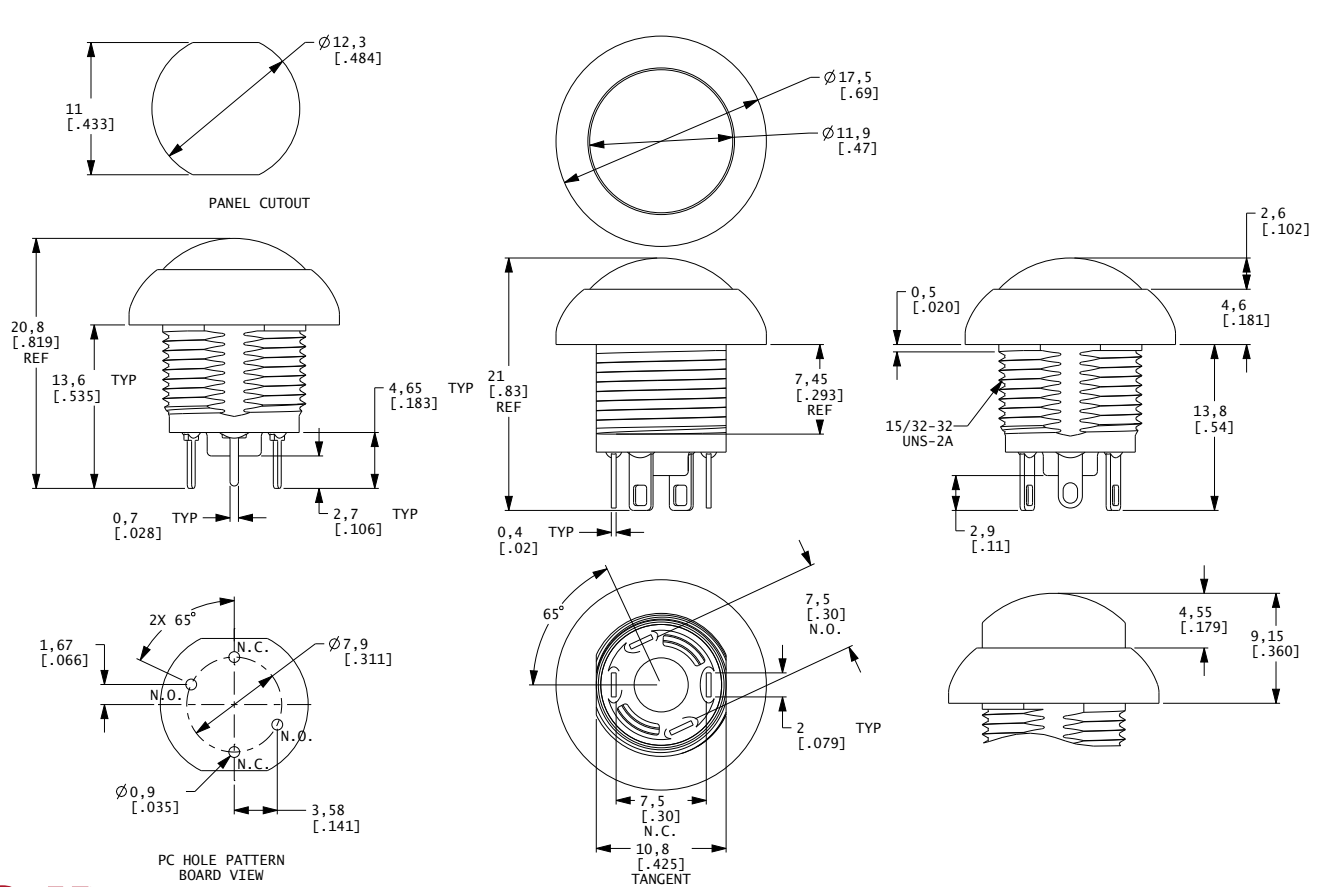


### HOUSING STYLE

#### T STANDARD THREADED MOUNT



#### D DOME BEZEL





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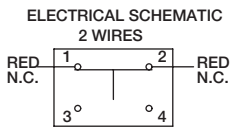
Pushbutton  
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## HOUSING COLOR

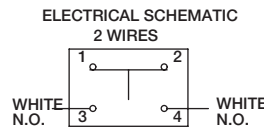
OPTION CODE	COLOR
<b>2</b>	Black (STD)

## CIRCUIT

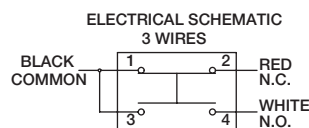
**W** SPST NC - Double Break



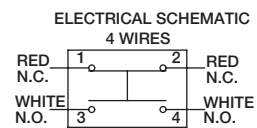
**Y** SPST NO - Double Break



**C** SPDT - Double Break

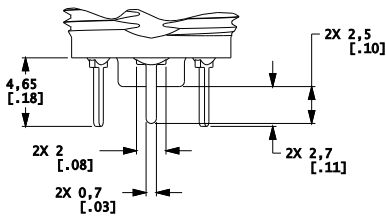


**C** SPDT - Double Break

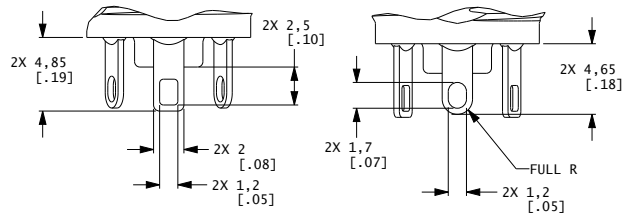


## TERMINATION

**02** PC PIN



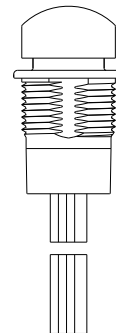
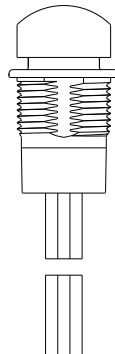
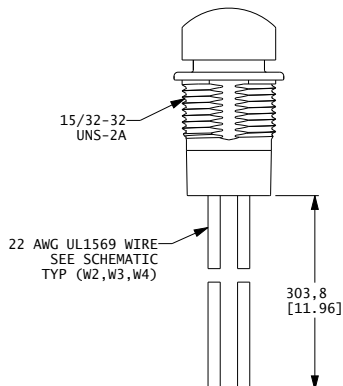
**03** SOLDER LUG (STD)



**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)



### CONTACT MATERIAL

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

### TERMINAL SEAL

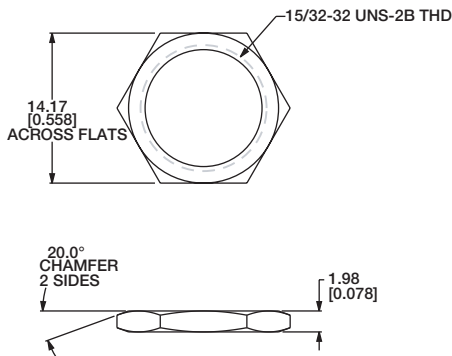
#### **E** EPOXY

All models are epoxy sealed

### HARDWARE

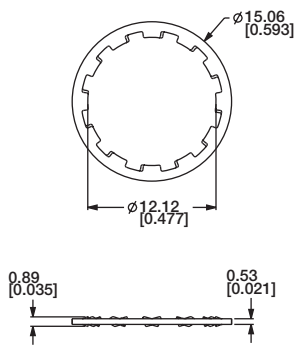
#### **HEX NUT**

707100201 Nickel-plated



#### **LOCKWASHER**

700302202



#### **PANEL GASKET**

851D02000

