

# NP Series

## Sealed Industrial Pushbutton Switches



### Specifications

<b>Function</b>	SPDT Double Break (Form Z) Momentary
<b>Contact Arrangement</b>	N.O. and N.C.
<b>Mounting Type</b>	Threaded front or rear mount and slot mount torque spec for threaded body: Do not exceed 50 in-lbs (5.65 N-m)

### Mechanical Characteristics

<b>Operating Life</b>	1,000,000 cycles
<b>Total Travel</b>	1.6 ± 0.15 mm
<b>Operating Point</b>	0.9 ± 0.25 mm
<b>Over Travel</b>	0.45 min.
<b>Operating Force</b>	8N ± 1.5N
<b>Vibration</b>	10-500 Hz 10g Max.
<b>Shock</b>	50g 11ms sawtooth wave

### Electrical Characteristics

<b>Contact Rating</b>	Option G - Gold over Silver 10mA/5 VDC (1,000,000 cycles) Option Q - Silver 1A/32 VDC resistive (100,000 cycles) 5A/32 VDC resistive (25,000 cycles) 3A/32 VDC resistive (25,000 cycles)
<b>Dielectric Strength</b>	1,000 V AC for 1 min.
<b>Insulation Resistance</b>	1 G Ω @ 500 V DC
<b>Initial Contact Resistance</b>	50 mΩ max (without wire leads)
<b>Bounce Time</b>	< 5 ms
<b>Operating Temperature</b>	-40°C to 85°C
<b>ESD Protection</b>	15 KV min.
<b>Sealing</b>	IP68

### Description

The NP series of sealed industrial pushbutton switches are perfect for use in transportation and industrial applications, because of their long life cycles and resistance to harsh environments. NP switches are available in a variety of housing styles, are IP68 sealed and RoHS compliant, are capable of up to a 5A resistive load – and come with wirelead options available.

### Features & Benefits

- IP68 sealed
- 1,000,000 life cycle
- Multiple housing styles
- Capable of up to 5A resistive load
- Wirelead options available
- RoHS compliant

### Applications

- Harsh environments
- Off-Road
- Industrial
- Transportation
- Military

### Materials

<b>Housing</b>	6061-T6 Aluminum, black or clear anodized
<b>Base</b>	PBT
<b>Cap</b>	PBT
<b>Actuator</b>	PBT
<b>Internal Seal</b>	Silicone rubber
<b>Terminals</b>	Copper with silver nickel inlay, silver plating
<b>Movable Contact</b>	Copper alloy, gold over silver plating
<b>Terminal Seal</b>	Epoxy

#### Notes:

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

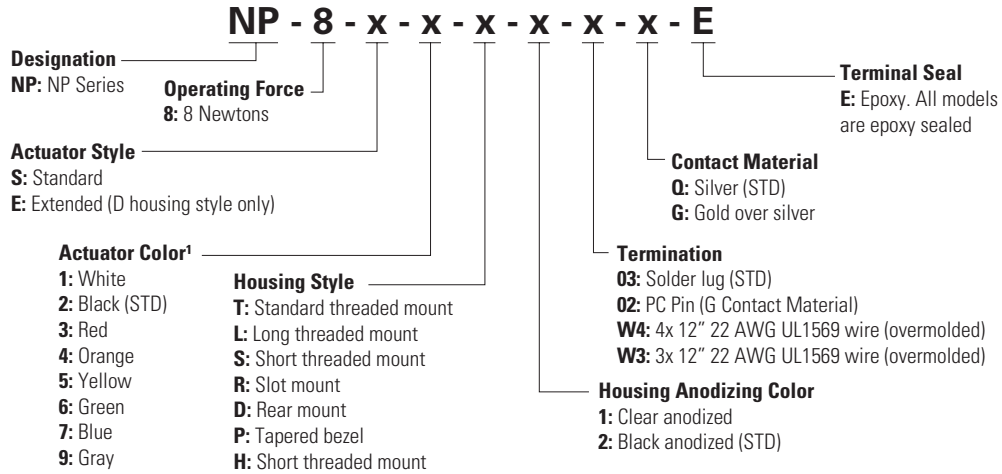
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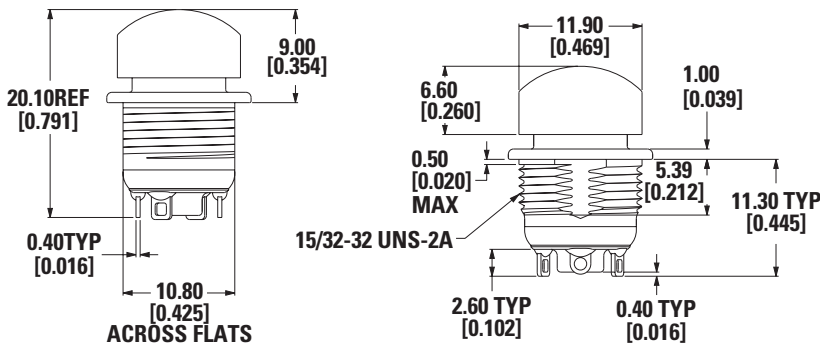
### Ordering Number

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

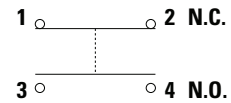


**Notes:**  
1. Please contact Customer Service for additional colors.

### Standard View



### ELECTRICAL SCHEMATIC

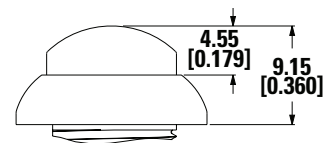


### Operating Force

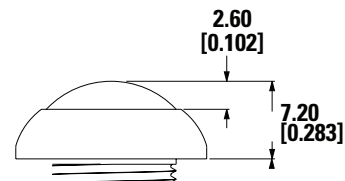
Option Code	Operating Force
8	8 N

### Actuator Style

#### E Extended (D Housing Style Only)



#### S Standard



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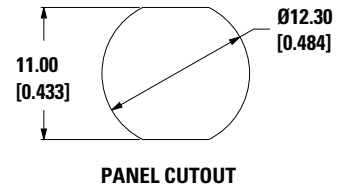
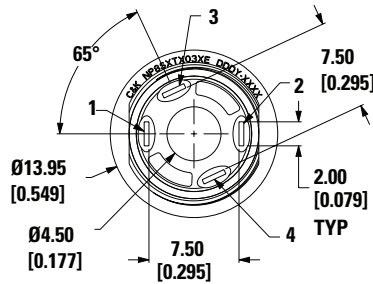
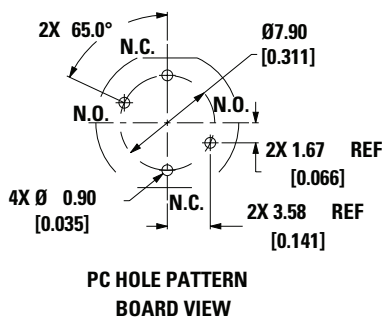
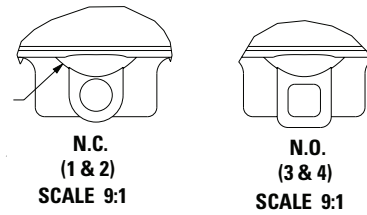
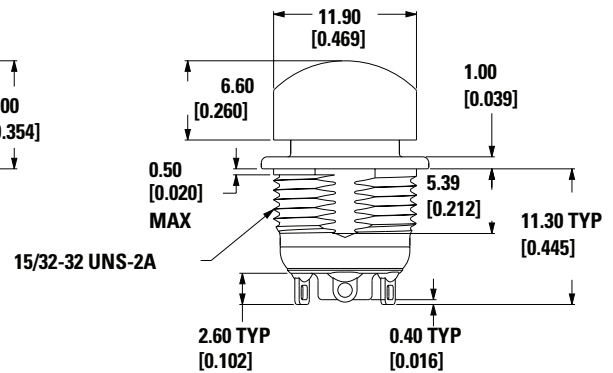
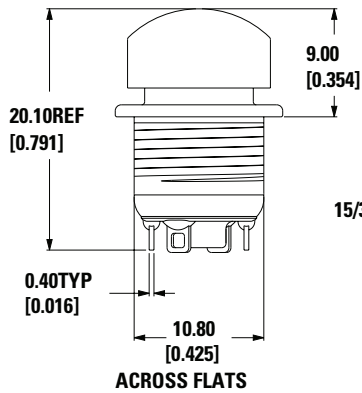
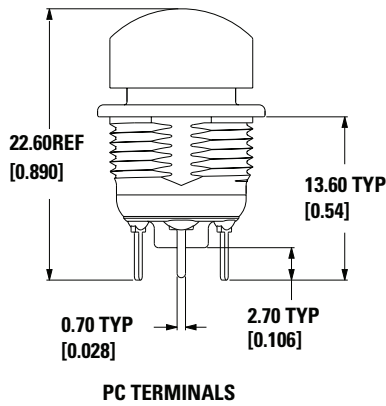
### Actuator Color

Option Code	Actuator Color
1	White
2	Black
3	Red
4	Orange
5	Yellow
6	Green
7	Blue
9	Gray

**Notes:**  
Please contact Customer Service for additional colors.

### Housing Style

#### T Standard Threaded Mount

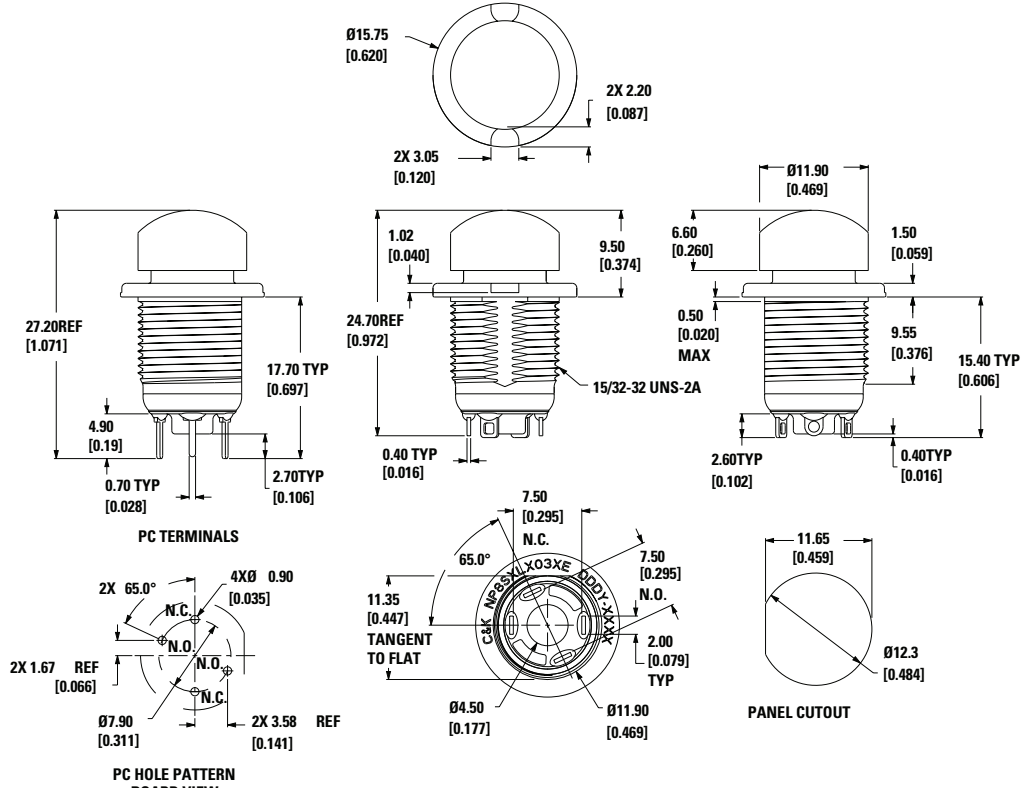


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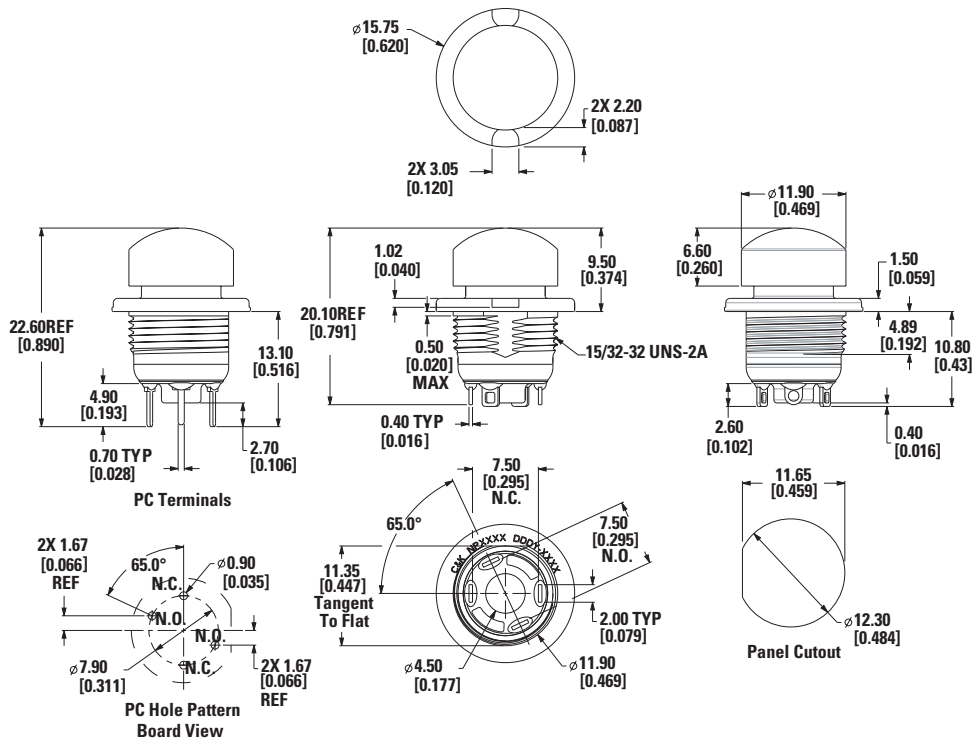
## Sealed Industrial Pushbutton Switches



### L Long Threaded Mount



### H Short Threaded Mount

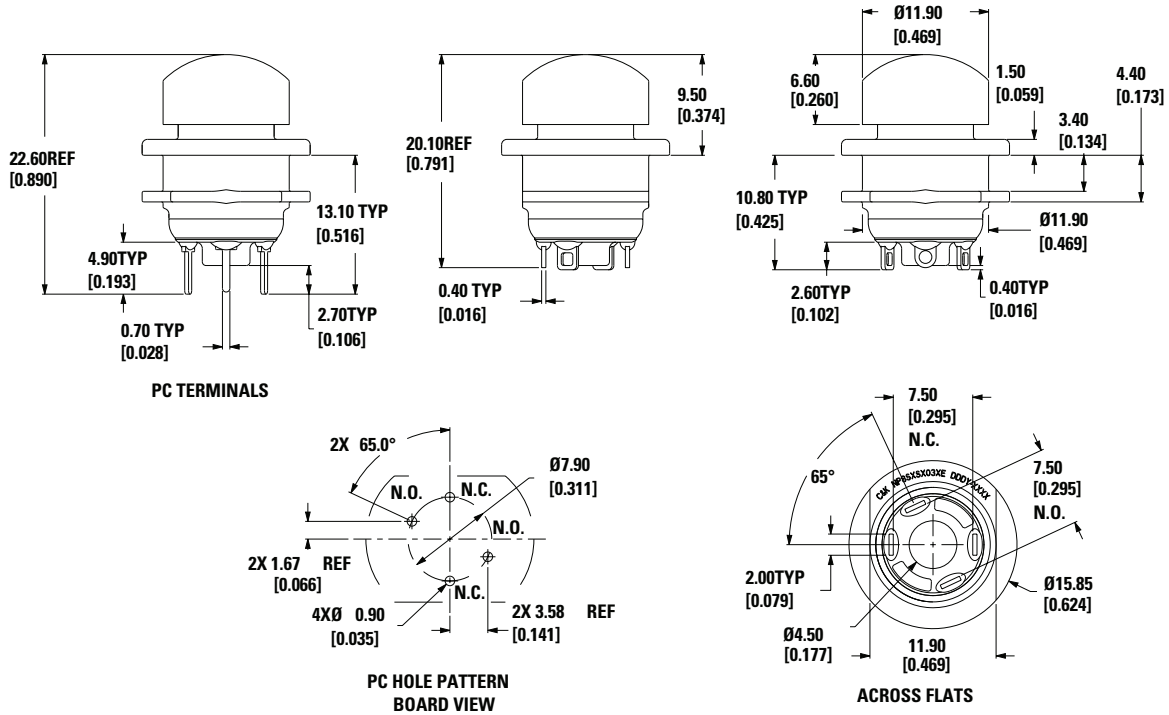


# NP Series

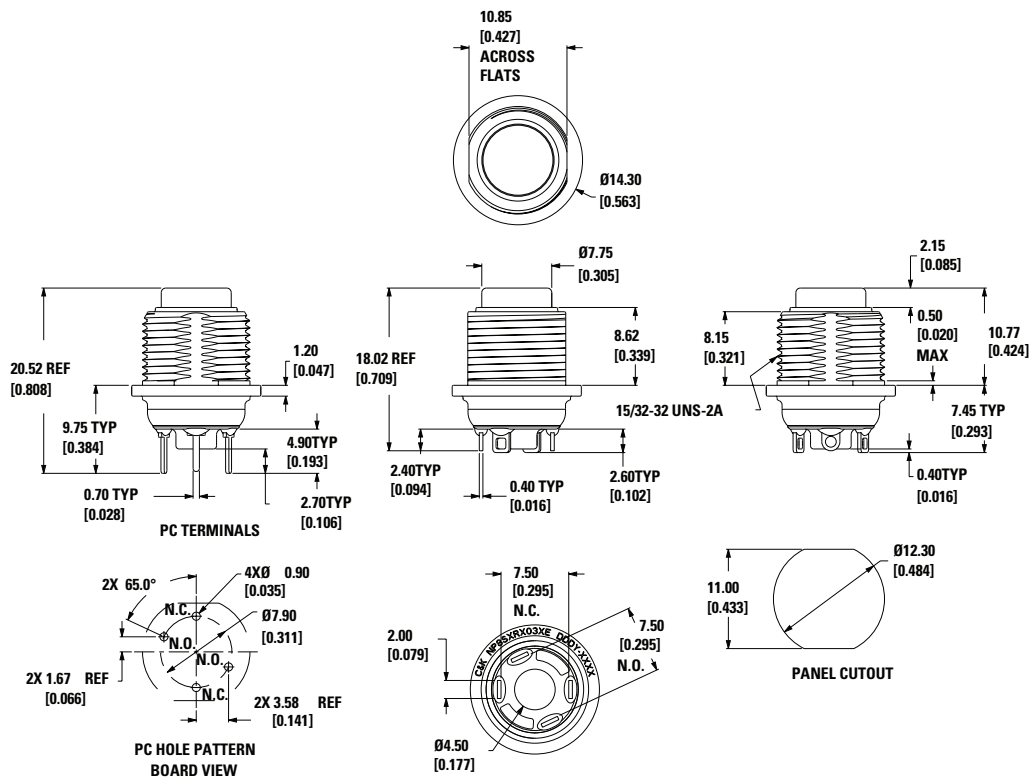
## Sealed Industrial Pushbutton Switches



### S Slot Mount



### R Rear Mount

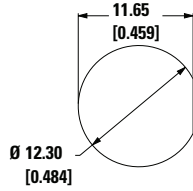


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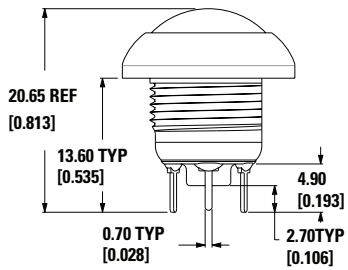
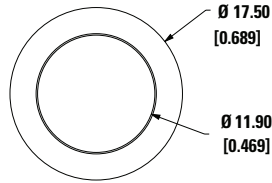
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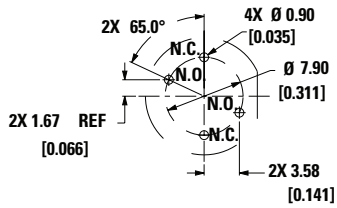
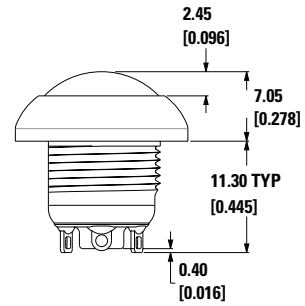
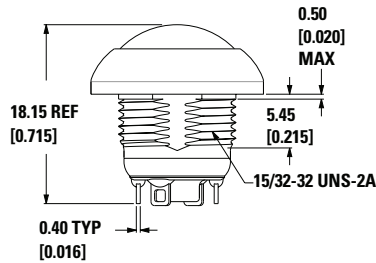
### D Dome Bezel



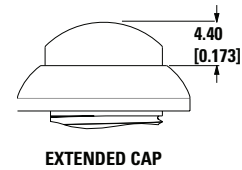
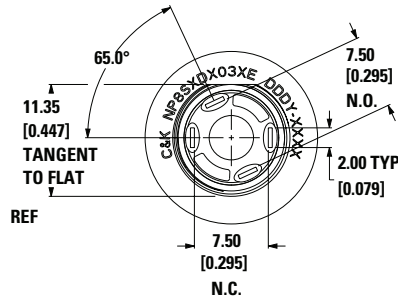
PANEL CUTOUT



PC TERMINALS



PC HOLE PATTERN BOARD VIEW



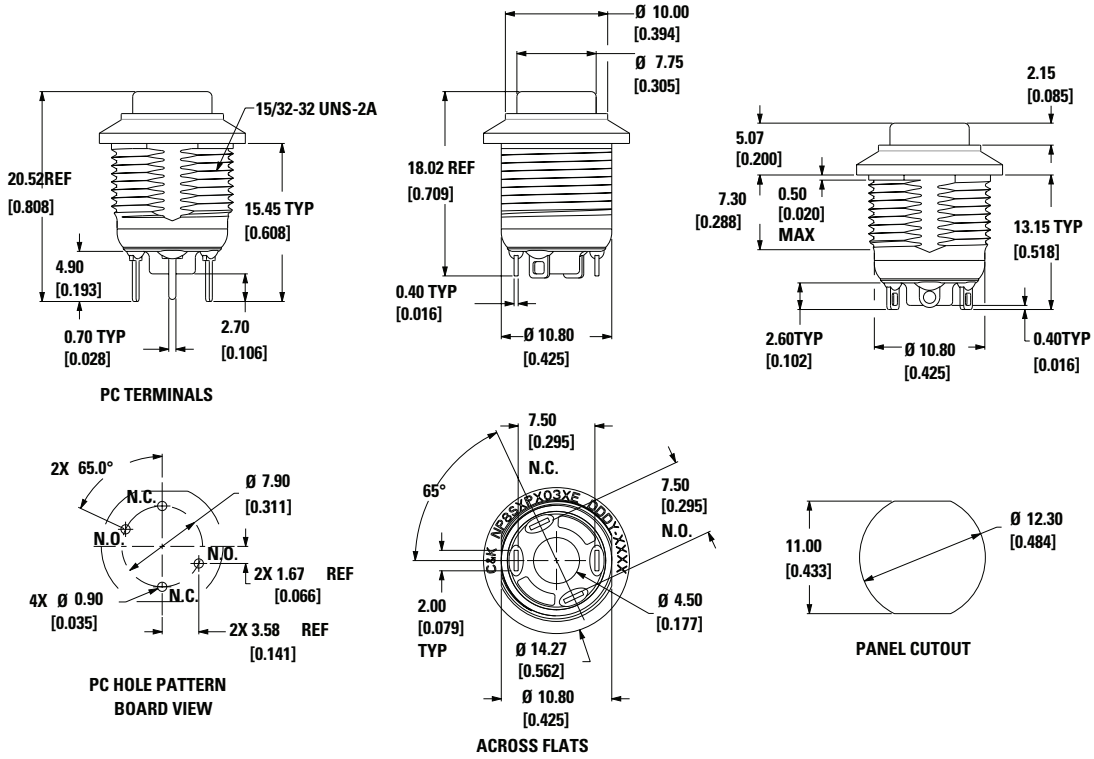
EXTENDED CAP

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### P Tapered Bezel

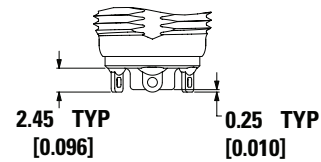


### Housing Anodizing Color

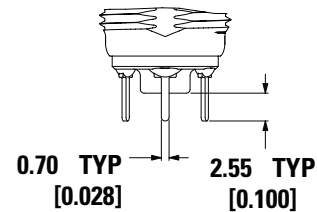
Option Code	Anodizing Color
1	Clear anodized
2	Black anodized (STD)

### Termination

#### 03 Solder Lug (STD)



#### 02 PC Pin (G Contact Material)

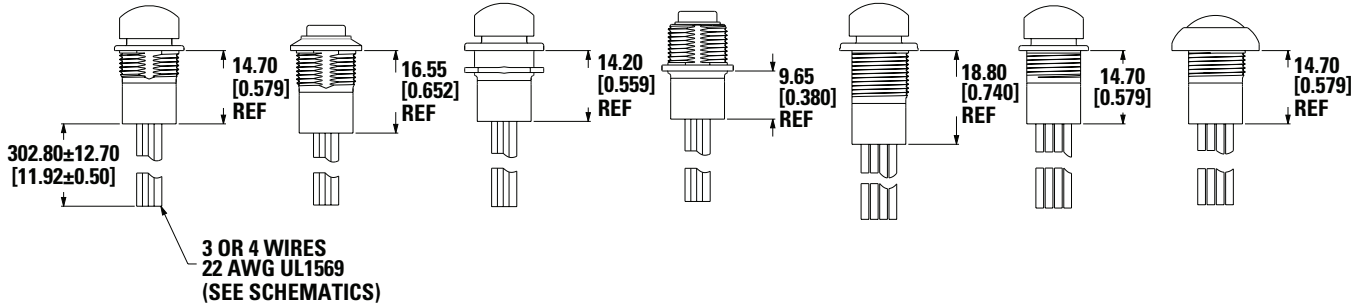


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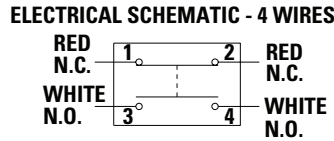
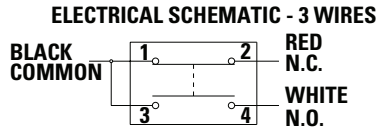


### Termination



W3 3x 12" 22 AWG UL1569 Wire (OVermolded)

W4 3x 12" 22 AWG UL1569 Wire (OVermolded)



### Contact Material

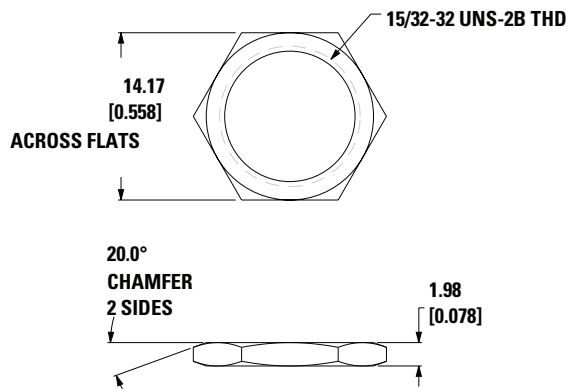
Option Code	Contact Material
Q	Silver (STD)
G	Gold over silver

### Terminal Seal

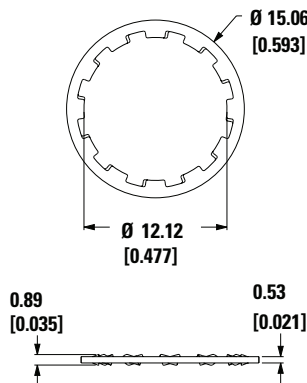
E Epoxy  
All models are epoxy sealed

### Hardware

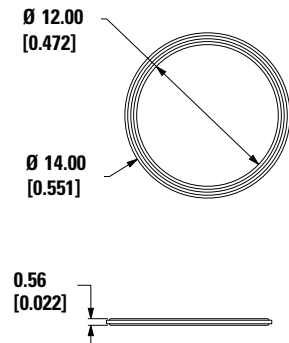
Hex Nut 707100201 Nickel-Plated



Lockwasher 700302202



Panel Gasket 851D02000



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