



A

Pushbutton

# NP Series

## Sealed Industrial Pushbutton Switch

NEW!

### Features/Benefits

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

### Typical Applications

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



### Specifications

FUNCTION: SPDT Double Break (Form Z) Momentary  
CONTACT ARRANGEMENT: N.O. and N.C.  
MOUNTING TYPE: Threaded front or rear mount and slot mount

### Mechanical

OPERATING LIFE: 1,000,000 cycles  
TOTAL TRAVEL:  $1.6 \pm 0.15$  mm  
OPERATING POINT  $0.9 \pm 0.25$  mm  
OVER TRAVEL: 0.45 min.  
OPERATING FORCE:  $8N \pm 1N$   
VIBRATION: 10-500 Hz 10g Max  
SHOCK: 50g 11ms sawtooth wave

### Electrical

CONTACT RATING:

- 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 inductive (25,000 cycles)

DIELECTRIC STRENGTH: 1000 V AC for 1 min.

INSULATION RESISTANCE:  $1 \text{ G } \Omega @ 500 \text{ VDC}$

INITIAL CONTACT RESISTANCE 50 m $\Omega$  max (without wire leads)

BOUNCE TIME: <5 ms

### Materials

HOUSING: 6061-T6 Aluminum, black or clear anodized  
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

### Operating Environment

OPERATING TEMPERATURE: -55°C to +105°C  
ESD PROTECTION: 15KV min.

### Process Environment

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.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                   |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>N</b> <b>P</b> </div> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 10px;"> <b>8</b> </div> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 10px;"> </div> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 10px;"> </div> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 10px;"> </div> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 10px;"> </div> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 10px;"> </div> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 10px;"> </div> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 10px;"> <b>E</b> </div> |                                                                                                                                                                                                   |  |
| <b>Designation</b><br><b>NP</b> NP Series                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                   |  |
| <b>Operating Force</b><br><b>8</b> 8 Newtons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                   |  |
| <b>Actuator Style</b><br><b>S</b> Standard<br><b>E</b> Extended (D housing style only)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                   |  |
| <b>Actuator Color*</b><br><b>2</b> Black (STD)<br><b>3</b> Red<br><b>4</b> Orange<br><b>5</b> Yellow<br><b>9</b> Gray                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                   |  |
| <b>Housing Style</b><br><b>T</b> Standard threaded mount<br><b>L</b> Long threaded mount<br><b>S</b> Slot mount<br><b>R</b> Rear mount<br><b>D</b> Dome bezel<br><b>P</b> Tapered bezel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Terminal Seal</b><br><b>E</b> Epoxy<br>All models are epoxy sealed                                                                                                                             |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Contact Material</b><br><b>Q</b> Silver (STD)<br><b>G</b> Gold over silver                                                                                                                     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Termination</b><br><b>03</b> Solder Lug (STD)<br><b>02</b> PC Pin (G Contact Material)<br><b>W4</b> 4x 12" 22 AWG UL1569 wire (overmolded)<br><b>W3</b> 3x 12" 22 AWG UL1569 wire (overmolded) |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Housing Anodizing Color</b><br><b>1</b> Clear anodized<br><b>2</b> Black anodized (STD)                                                                                                        |  |

\* Please contact Customer Service for additional colors.



Specifications and dimensions subject to change

**NEW!**

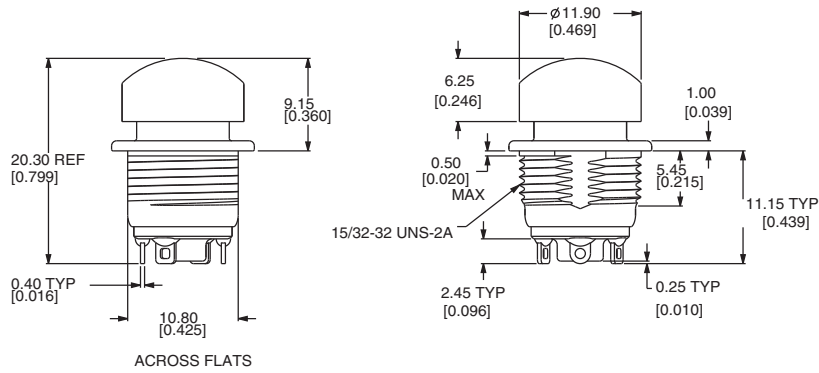
# NP Series Sealed Industrial Pushbutton Switch



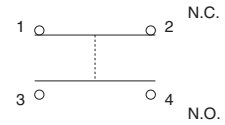
**A**

**Pushbutton**

## STANDARD VIEW



### ELECTRICAL SCHEMATIC



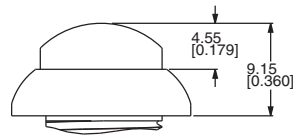
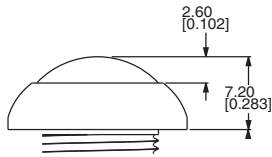
## OPERATING FORCE

| OPTION CODE | OPERATING FORCE |
|-------------|-----------------|
| <b>8</b>    | 8 N             |

## ACTUATOR STYLE

**S** STANDARD

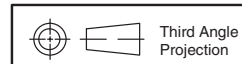
**E** EXTENDED (D HOUSING STYLE ONLY)



## ACTUATOR COLOR

| OPTION CODE | ACTUATOR COLOR |
|-------------|----------------|
| <b>2</b>    | Black          |
| <b>3</b>    | Red            |
| <b>4</b>    | Orange         |
| <b>5</b>    | Yellow         |
| <b>9</b>    | Gray           |

For additional colors please contact Customer Service.



Third Angle  
Projection



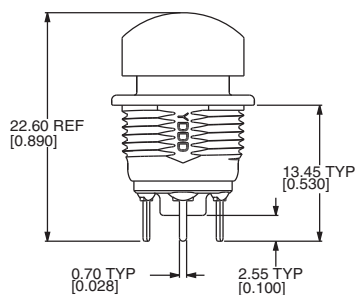
Dimensions are shown: mm (inches)  
Specifications and dimensions subject to change

**A****Pushbutton**

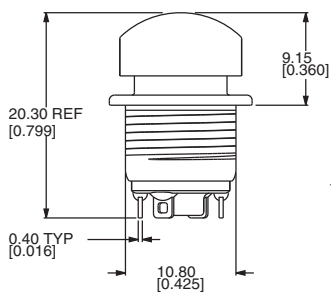
# NP Series Sealed Industrial Pushbutton Switch **NEW!**

## HOUSING STYLE

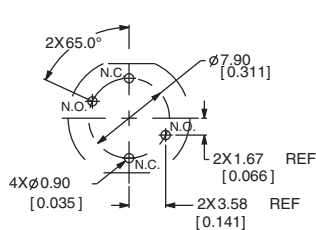
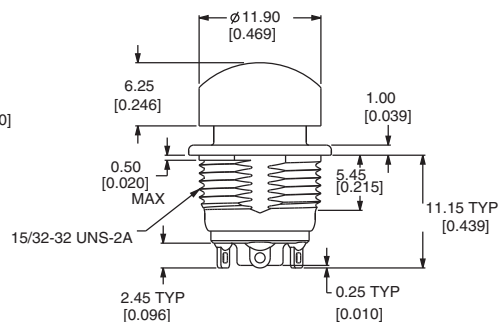
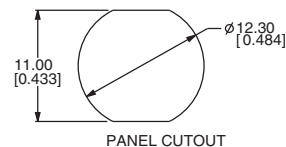
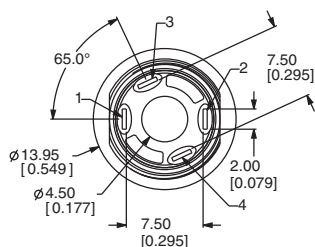
### **T** STANDARD THREADED MOUNT



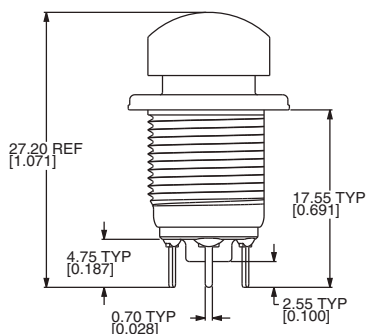
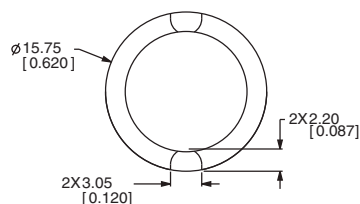
PC TERMINALS



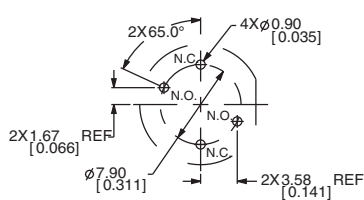
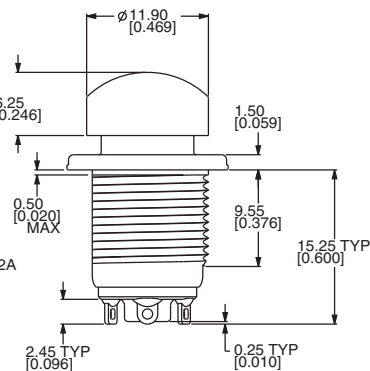
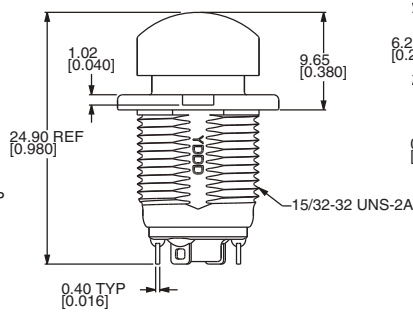
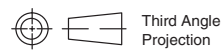
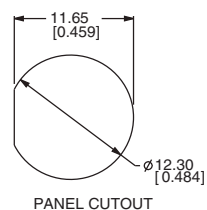
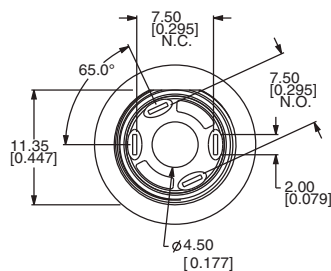
ACROSS FLATS

PC HOLE PATTERN  
BOARD VIEW

### **L** LONG THREADED MOUNT



PC TERMINALS

PC HOLE PATTERN  
BOARD VIEWThird Angle  
Projection**C&K**

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

[www.ck-components.com](http://www.ck-components.com)

**NEW!**

# NP Series Sealed Industrial Pushbutton Switch

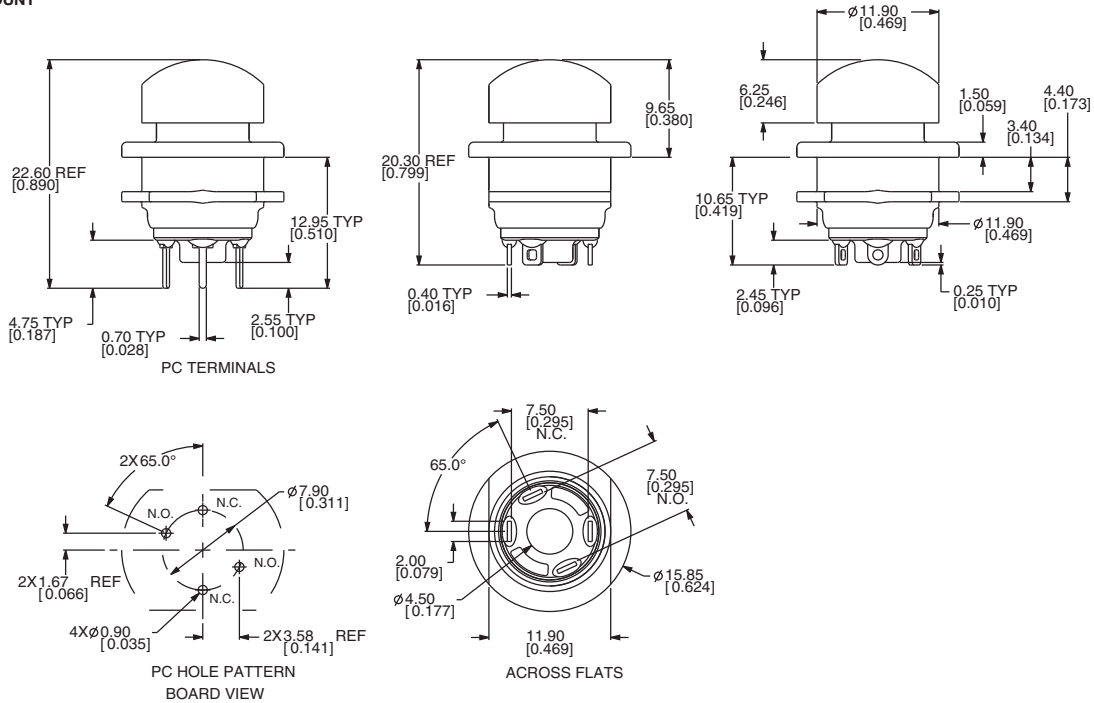


**A**

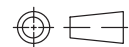
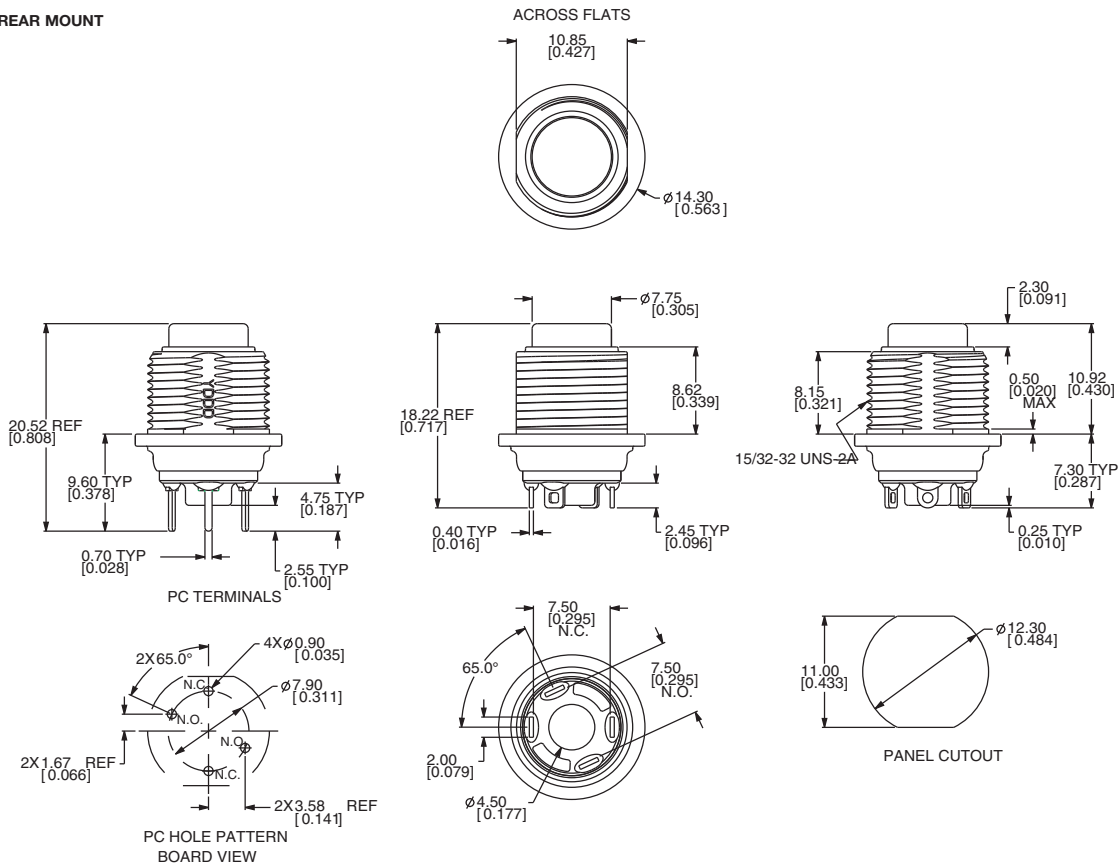
Pushbutton

## HOUSING STYLE

### S SLOT MOUNT



### R REAR MOUNT



Third Angle  
Projection

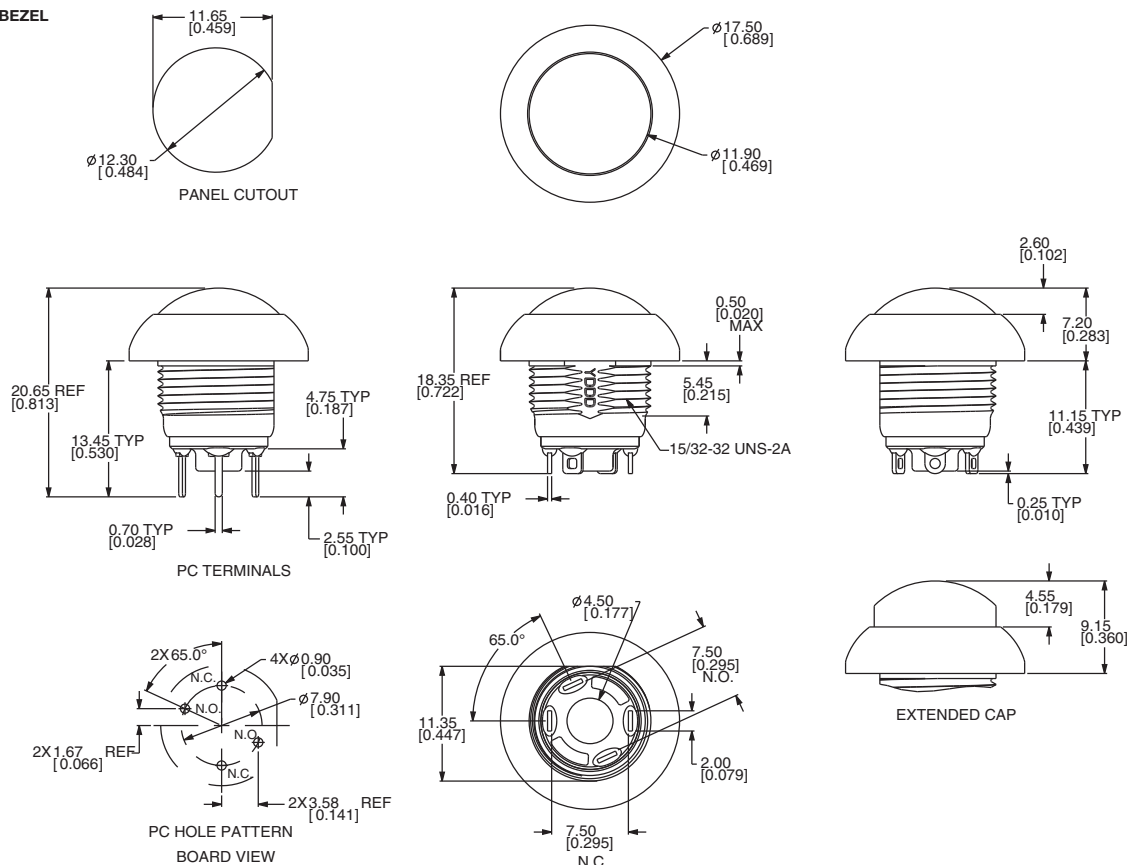
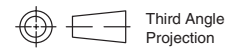
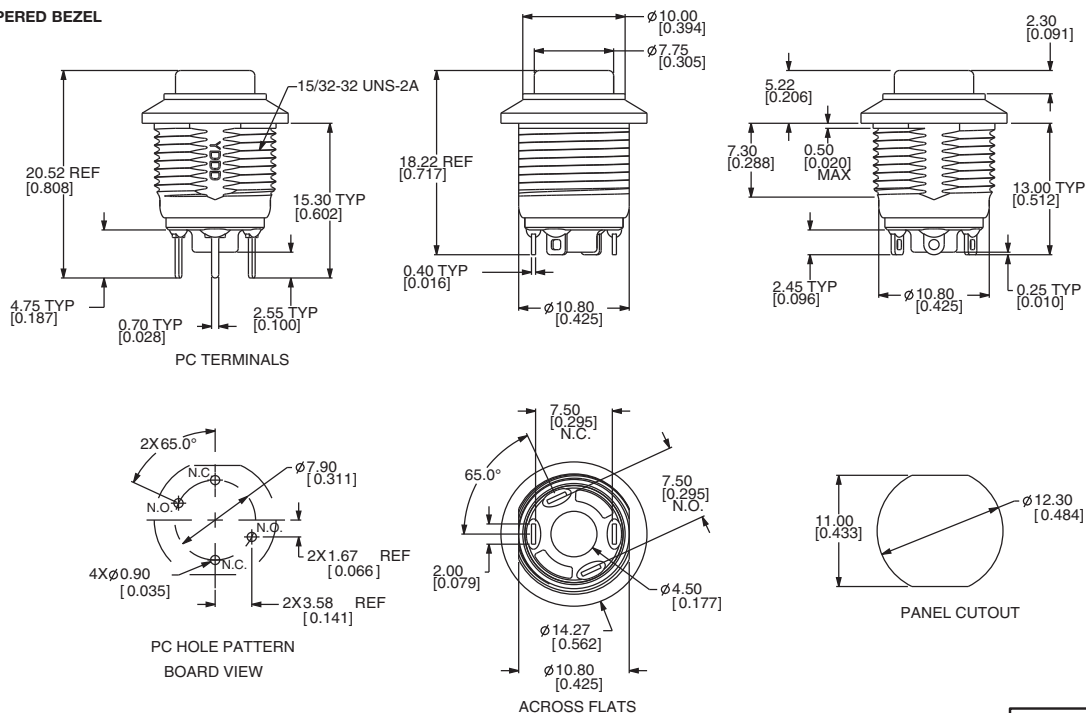


Dimensions are shown: mm (inches)  
Specifications and dimensions subject to change

**A****Pushbutton**

# NP Series

## Sealed Industrial Pushbutton Switch

**NEW!****HOUSING STYLE****D DOME BEZEL****P TAPERED BEZEL**Third Angle  
Projection**C&K**

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

**NEW!**

# NP Series Sealed Industrial Pushbutton Switch



**A**

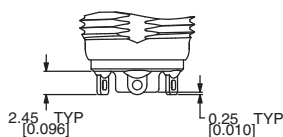
Pushbutton

## HOUSING ANODIZING COLOR

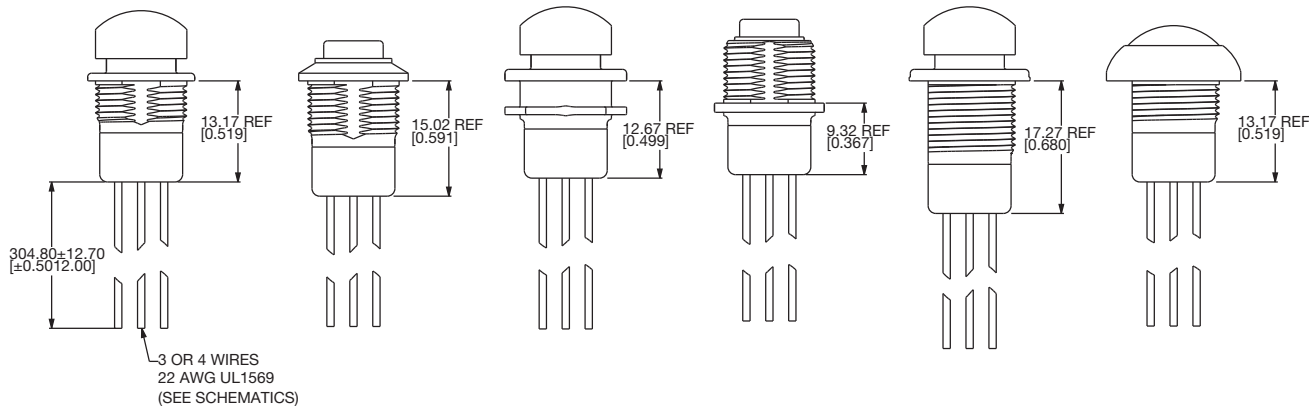
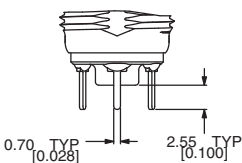
| OPTION CODE | ANODIZING COLOR      |
|-------------|----------------------|
| <b>1</b>    | Clear anodized       |
| <b>2</b>    | Black anodized (STD) |

## TERMINATION

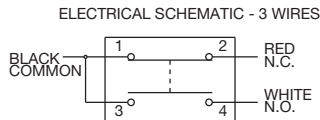
### 03 SOLDER LUG (STD)



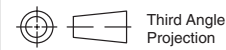
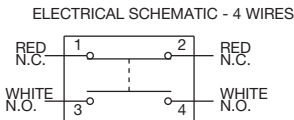
### 02 PC PIN (G CONTACT MATERIAL)



### W3 3X 12" 22 AWG UL1569 WIRE (OVERMOLDED)



### W4 4X 12" 22 AWG UL1569 WIRE (OVERMOLDED)



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



**A**

Pushbutton

# NP Series Sealed Industrial Pushbutton Switch

**NEW!**

## CONTACT MATERIAL

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

## TERMINAL SEAL

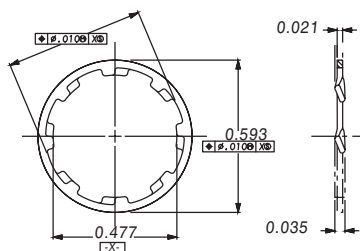
### **E** EPOXY

All models are epoxy sealed

## HARDWARE

### **LOCKWASHER**

700302202

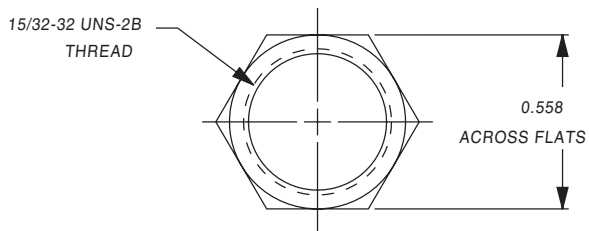


### **HEX NUT**

707100A56 Black

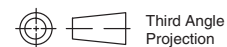
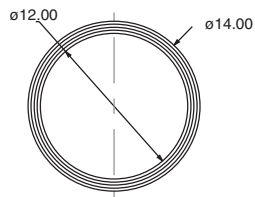
707100201 Nickel-plated

707100215 Satin Chrome



### **PANEL GASKET**

851D020000



Third Angle  
Projection

**C&K**

Dimensions are shown: mm (Inches)  
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