



# NP Series Sealed Industrial Pushbutton Switch

Pushbutton  
A

## 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  
TORQUE SPEC FOR THREADED BODY: Do not exceed 50 in-lbs (5.65 N-m)

### Mechanical

OPERATING LIFE: 1,000,000 cycles  
TOTAL TRAVEL: 1.6 ± 0.15 mm  
OPERATING POINT 0.9 ± 0.25 mm  
OVER TRAVEL: 0.45 min.  
OPERATING FORCE: 8N ± 1.5N  
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 resistive (25,000 cycles)

## Electrical (cont.)

DIELECTRIC STRENGTH: 1000 V AC for 1 min.  
INSULATION RESISTANCE: 1 G Ω @ 500 VDC  
INITIAL CONTACT RESISTANCE 50 mΩ 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: -40°C to +85°C  
ESD PROTECTION: 15KV min.

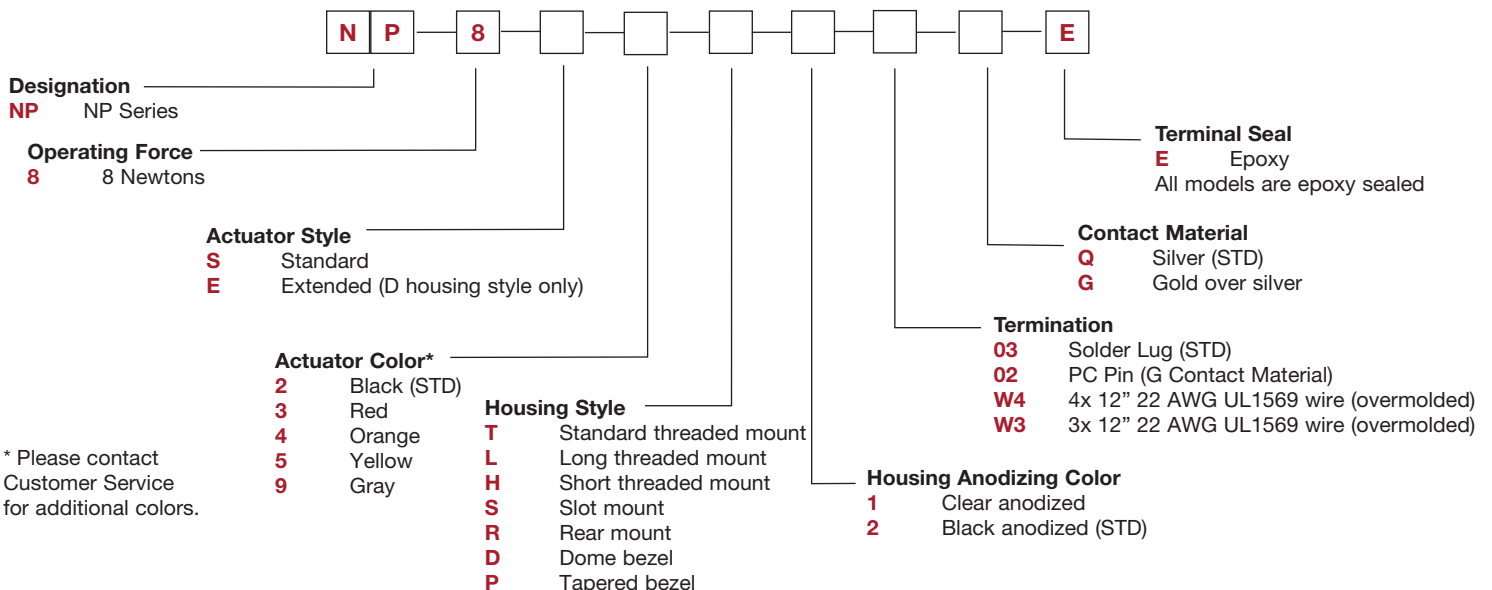
## Process Environment

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.



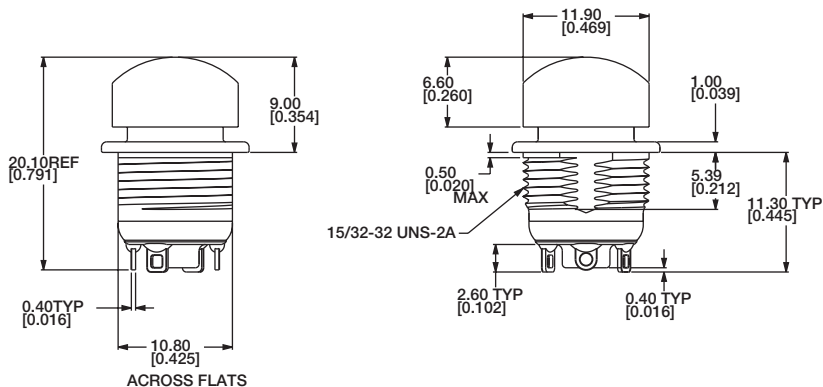
# NP Series Sealed Industrial Pushbutton Switch



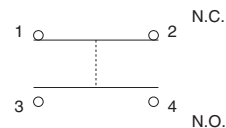
A

Pushbutton

## STANDARD VIEW



### ELECTRICAL SCHEMATIC



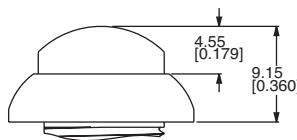
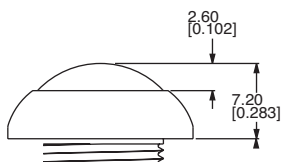
## OPERATING FORCE

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

## ACTUATOR STYLE

**S** STANDARD

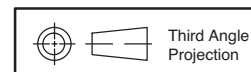
**E** EXTENDED (D HOUSING STYLE ONLY)



## 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.



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



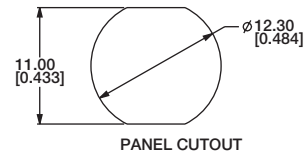
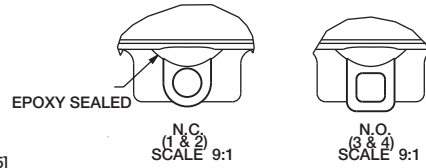
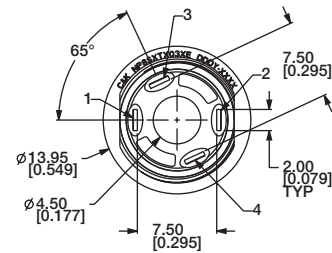
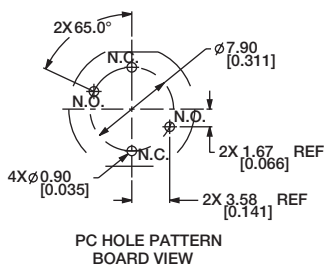
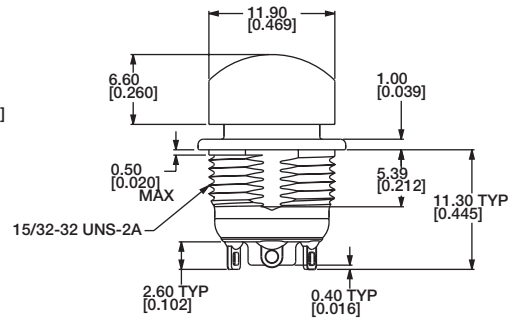
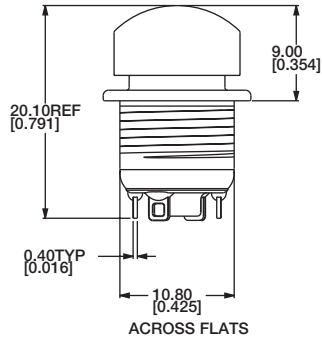
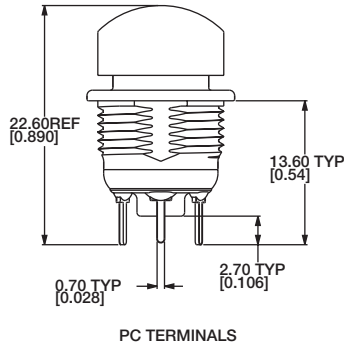


# NP Series Sealed Industrial Pushbutton Switch

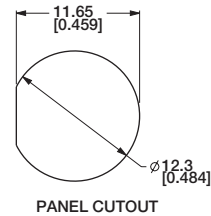
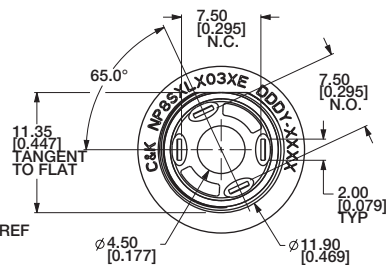
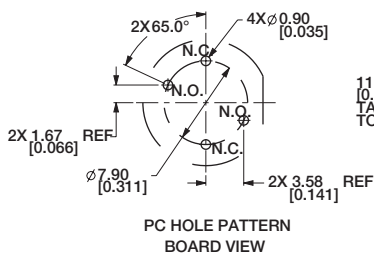
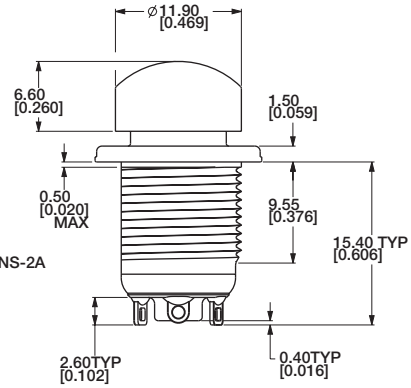
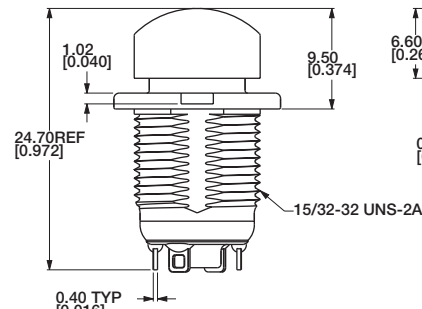
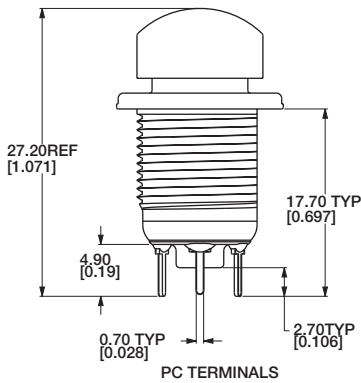
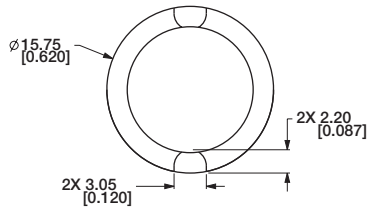
## HOUSING STYLE

Pushbutton

### T STANDARD THREADED MOUNT



### L LONG THREADED MOUNT



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

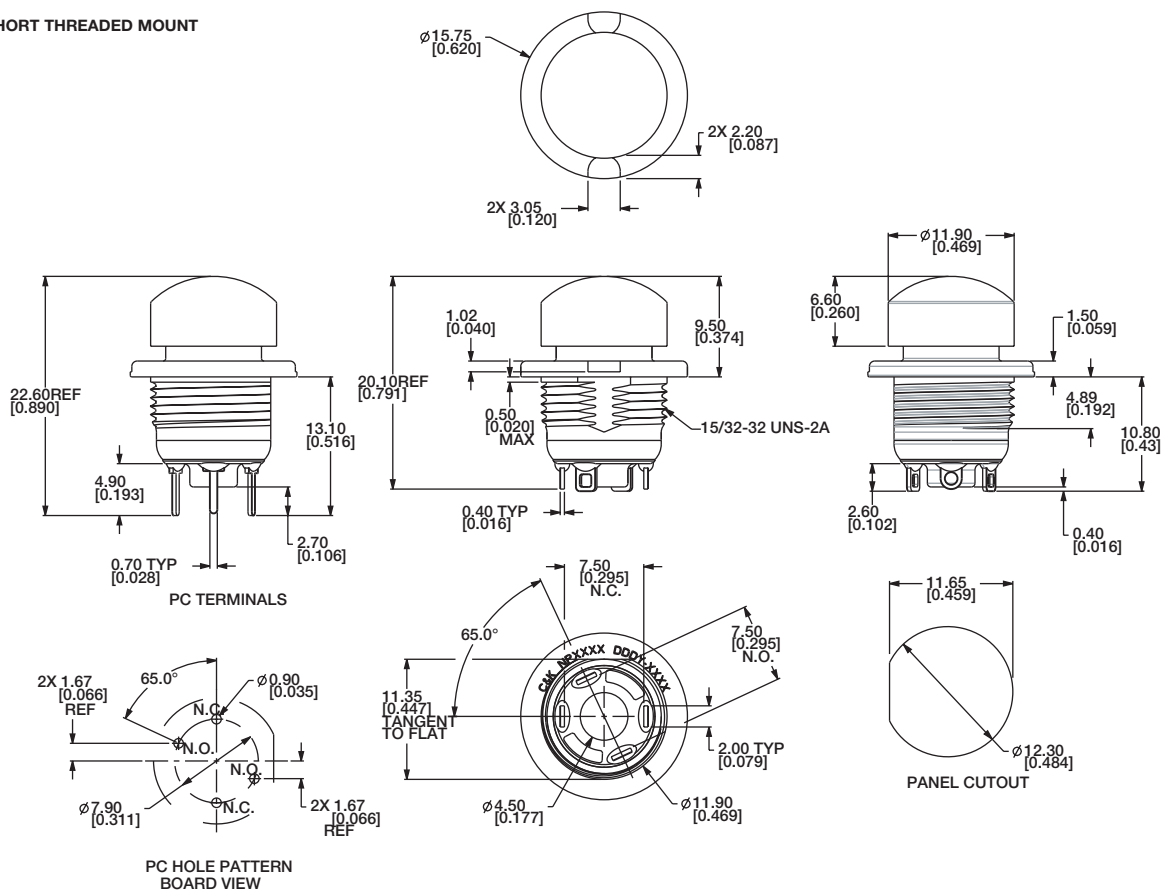
# NP Series Sealed Industrial Pushbutton Switch



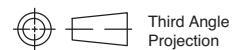
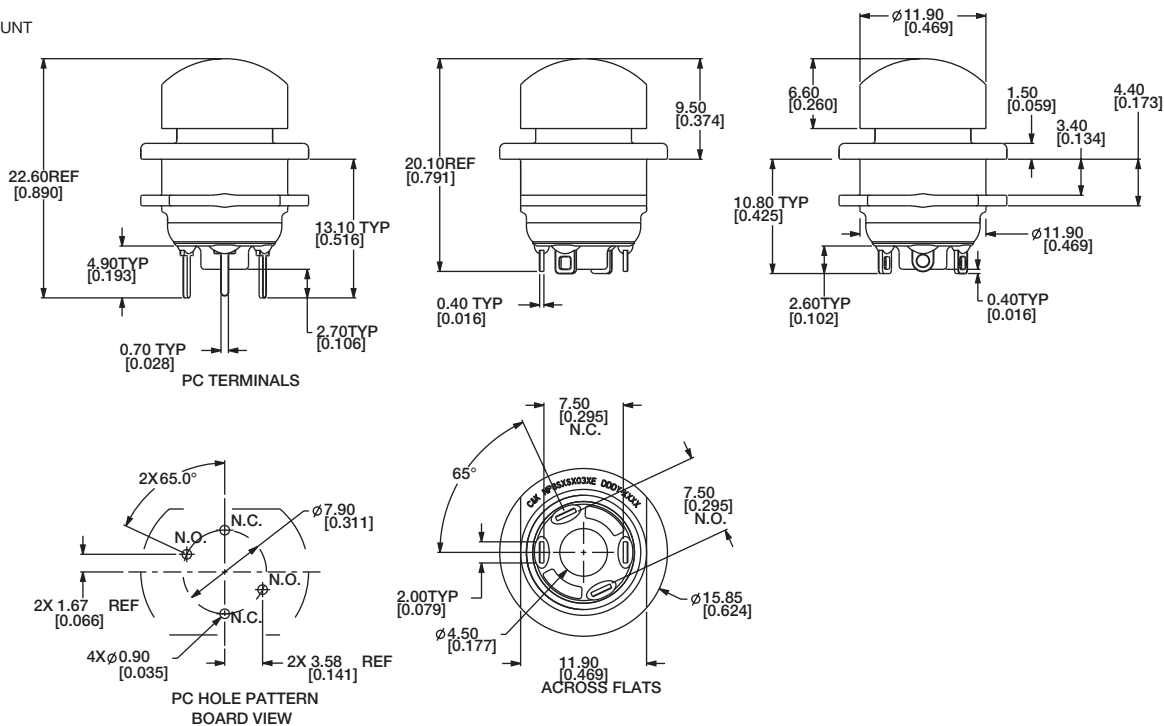
A  
Pushbutton

## HOUSING STYLE

### H SHORT THREADED MOUNT



### S SLOT MOUNT



Third Angle  
Projection

**C&K**

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

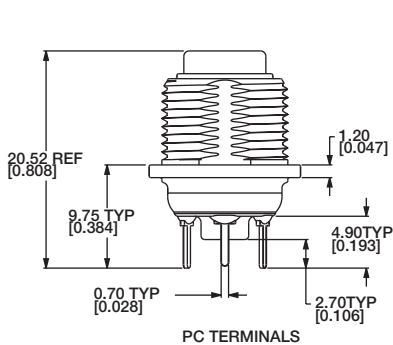
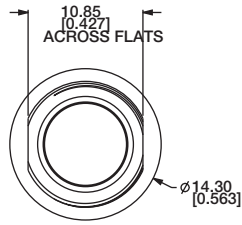


# NP Series Sealed Industrial Pushbutton Switch

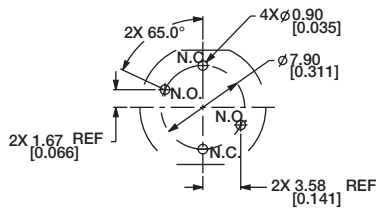
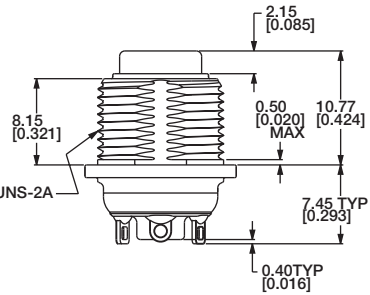
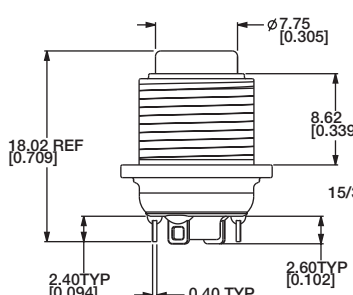
## HOUSING STYLE

Pushbutton

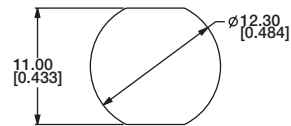
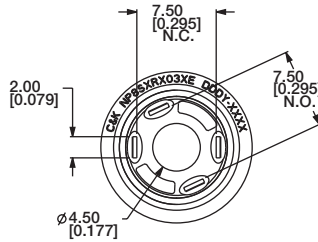
### R REAR MOUNT



PC TERMINALS

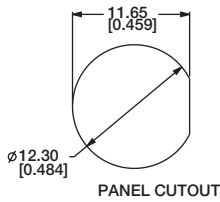


PC HOLE PATTERN  
BOARD VIEW

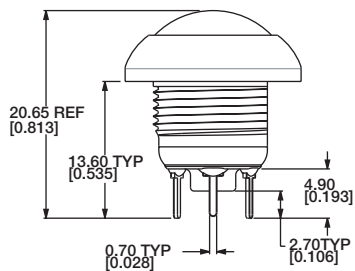
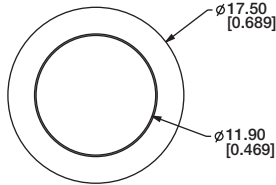


PANEL CUTOUT

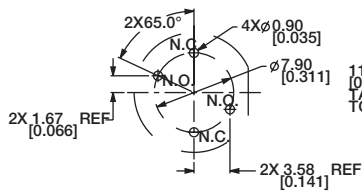
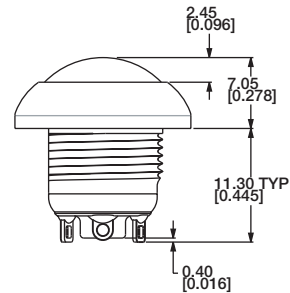
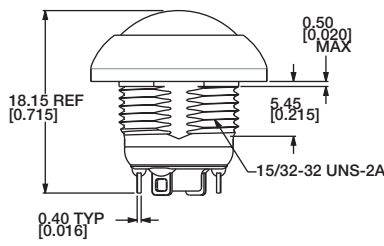
### D DOME BEZEL



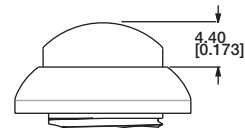
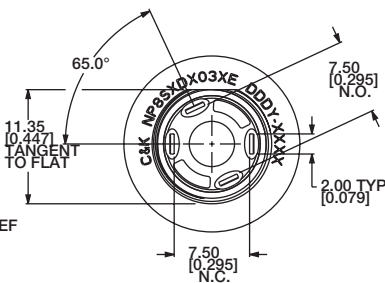
PANEL CUTOUT



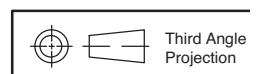
PC TERMINALS



PC HOLE PATTERN  
BOARD VIEW



EXTENDED CAP



Third Angle  
Projection



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

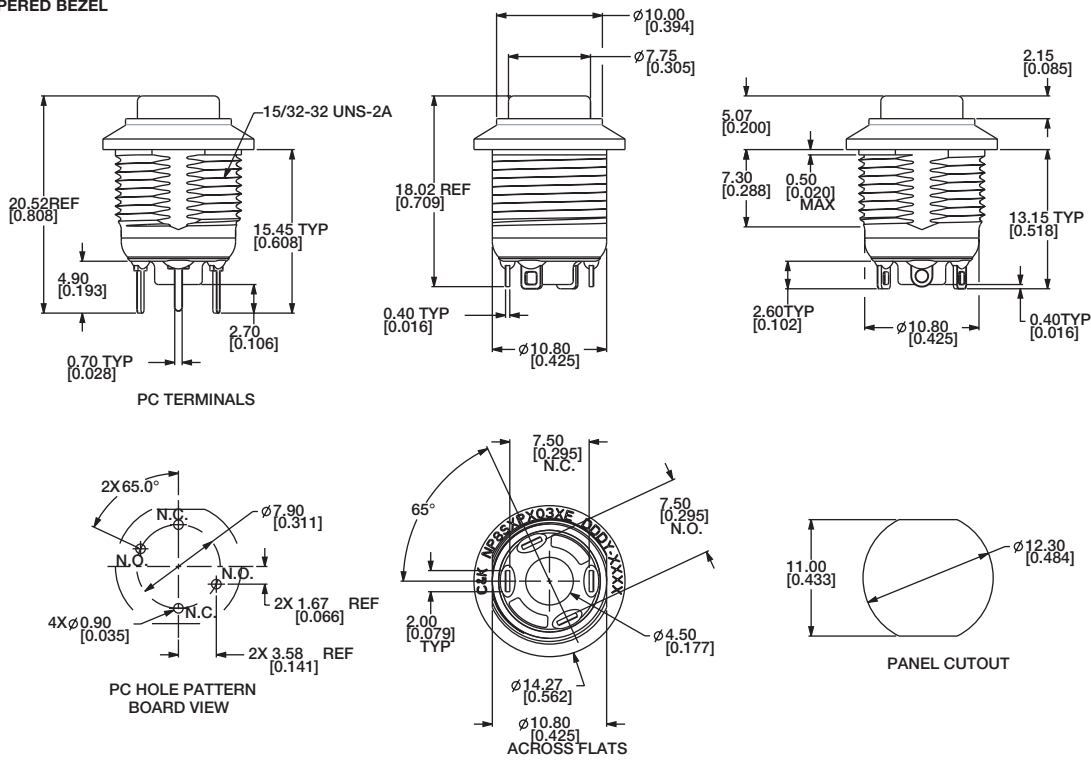
# NP Series Sealed Industrial Pushbutton Switch



A  
Pushbutton

## HOUSING STYLE

### P TAPERED BEZEL

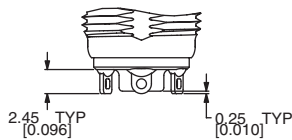


## HOUSING ANODIZING COLOR

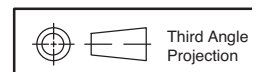
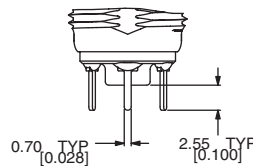
OPTION CODE	ANODIZING COLOR
1	Clear anodized
2	Black anodized (STD)

## TERMINATION

### 03 SOLDER LUG (STD)



### 02 PC PIN (G CONTACT MATERIAL)

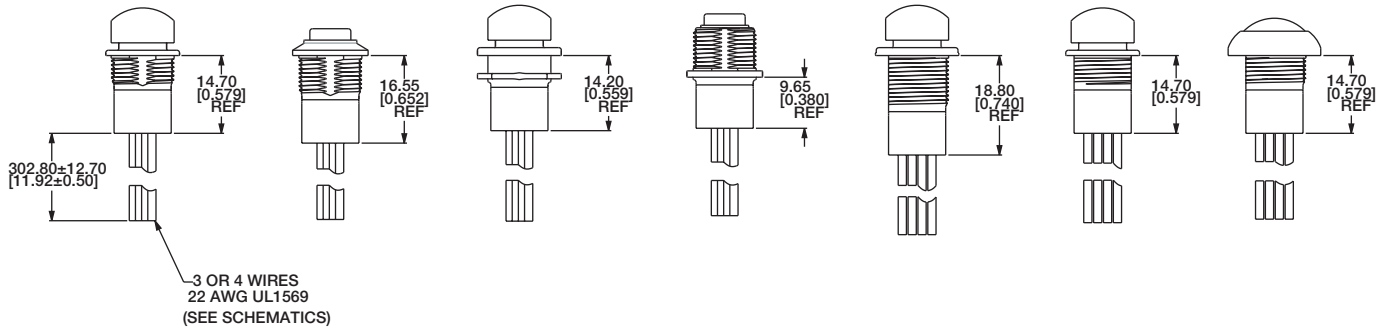




# NP Series Sealed Industrial Pushbutton Switch

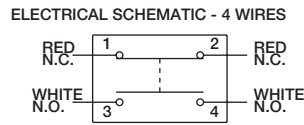
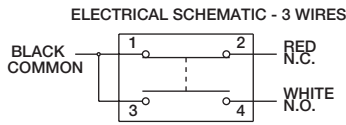
Pushbutton  
A

## TERMINATION



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

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



## CONTACT MATERIAL

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

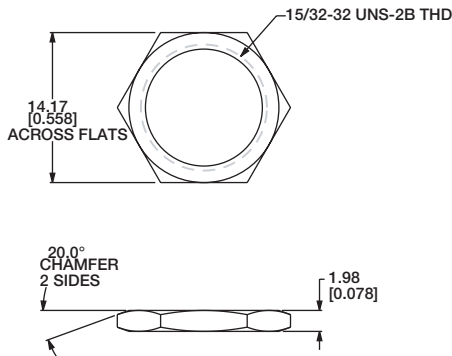
## TERMINAL SEAL

**E** EPOXY

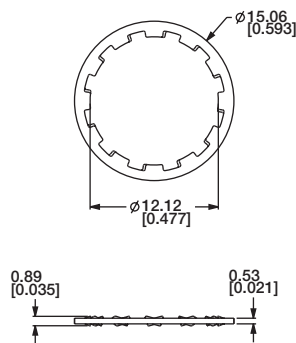
All models are epoxy sealed

## HARDWARE

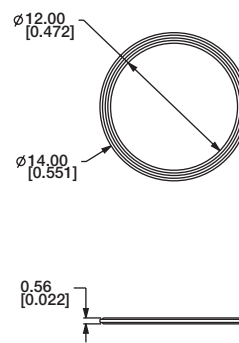
**HEX NUT**  
707100201 Nickel-plated



**LOCKWASHER**  
700302202



**PANEL GASKET**  
851D02000



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