

NP Series

Sealed Industrial Pushbutton Switches



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 Characteristics

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 Characteristics

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)
Dielectric Strength	1,000 V AC for 1 min.
Insulation Resistance	1 G Ω @ 500 V DC
Initial Contact Resistance	50 mΩ max (without wire leads)
Bounce Time	< 5 ms
Operating Temperature	-40°C to 85°C
ESD Protection	15 KV min.
Sealing	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

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

Notes:

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

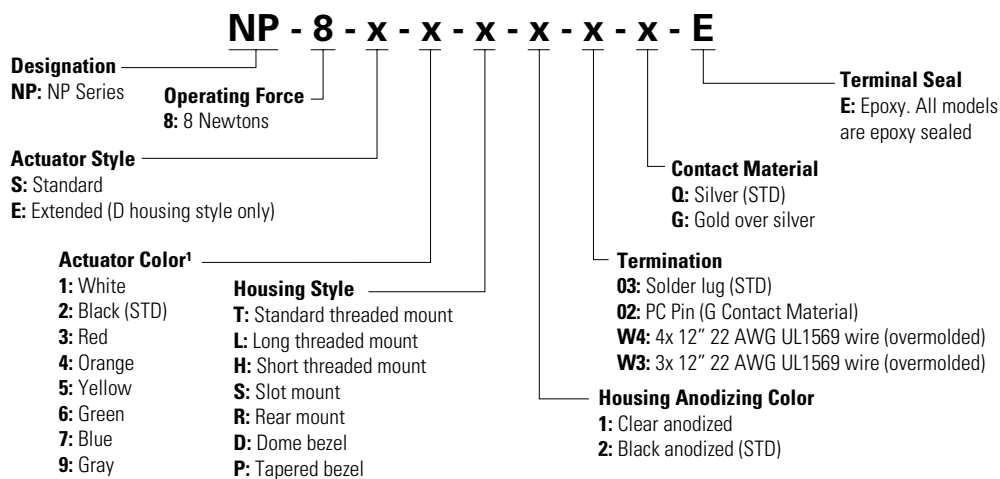
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Ordering Number

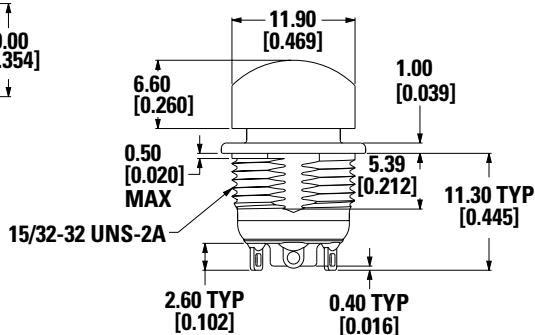
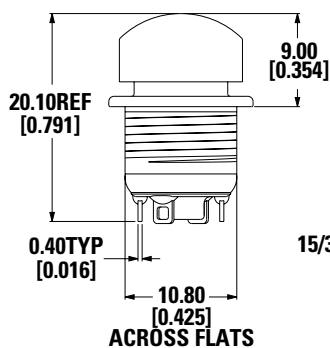
To order, simply select desired option from each category and place in the appropriate box.



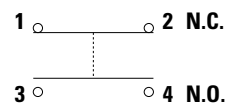
Notes:

1. Please contact Customer Service for additional colors.

Standard View



ELECTRICAL SCHEMATIC

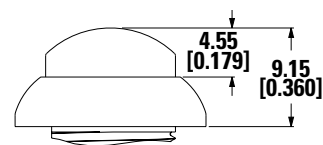


Operating Force

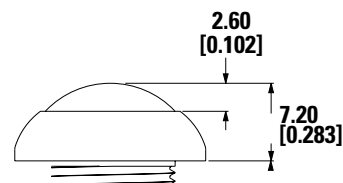
Option Code	Operating Force
8	8 N

Actuator Style

E Extended (D Housing Style Only)



S Standard



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Actuator Color

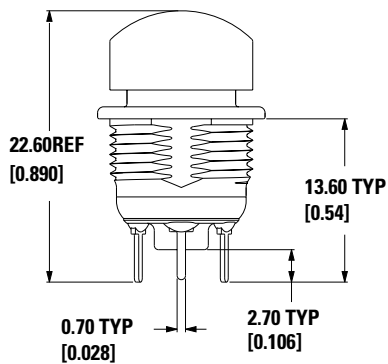
Option Code	Actuator Color
1	White
2	Black
3	Red
4	Orange
5	Yellow
6	Green
7	Blue
9	Gray

Notes:

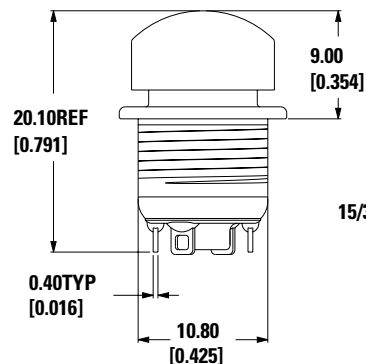
Please contact Customer Service for additional colors.

Housing Style

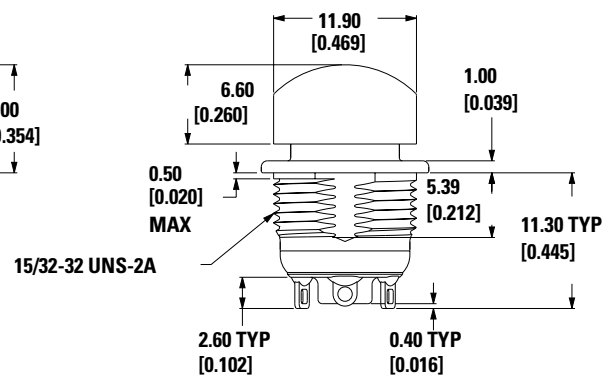
T Standard Threaded Mount



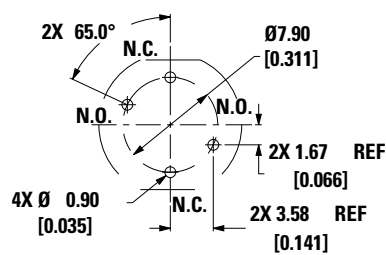
PC TERMINALS



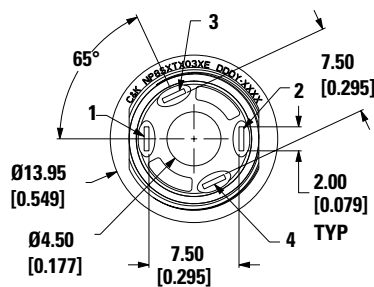
ACROSS FLATS



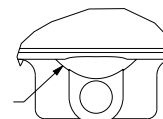
15/32-32 UNS-2A



PC HOLE PATTERN
BOARD VIEW



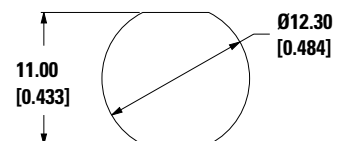
EPOXY SEALED



N.C.
(1 & 2)
SCALE 9:1



N.O.
(3 & 4)
SCALE 9:1



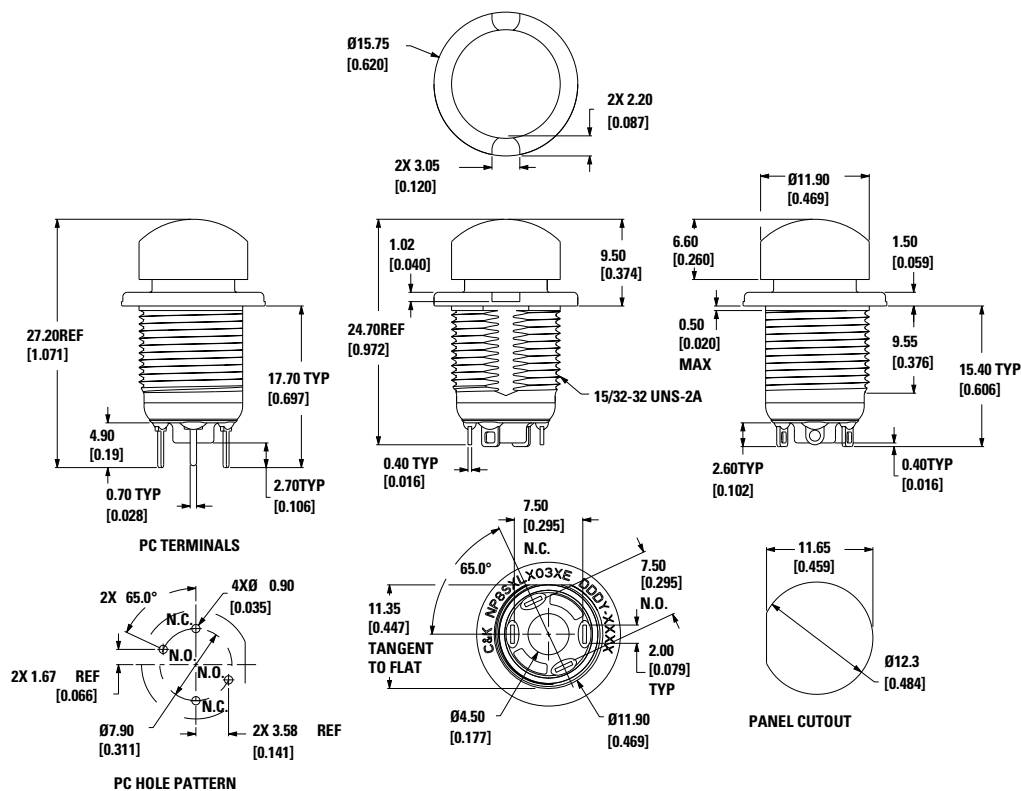
PANEL CUTOUT

NP Series

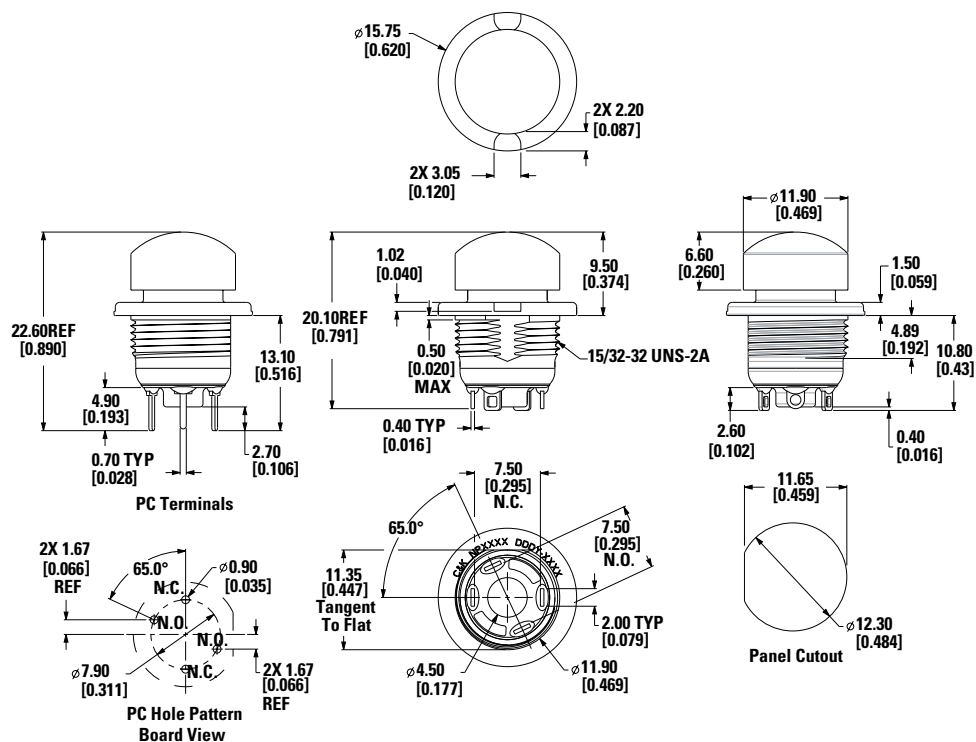
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L Long Threaded Mount



H Short Threaded Mount

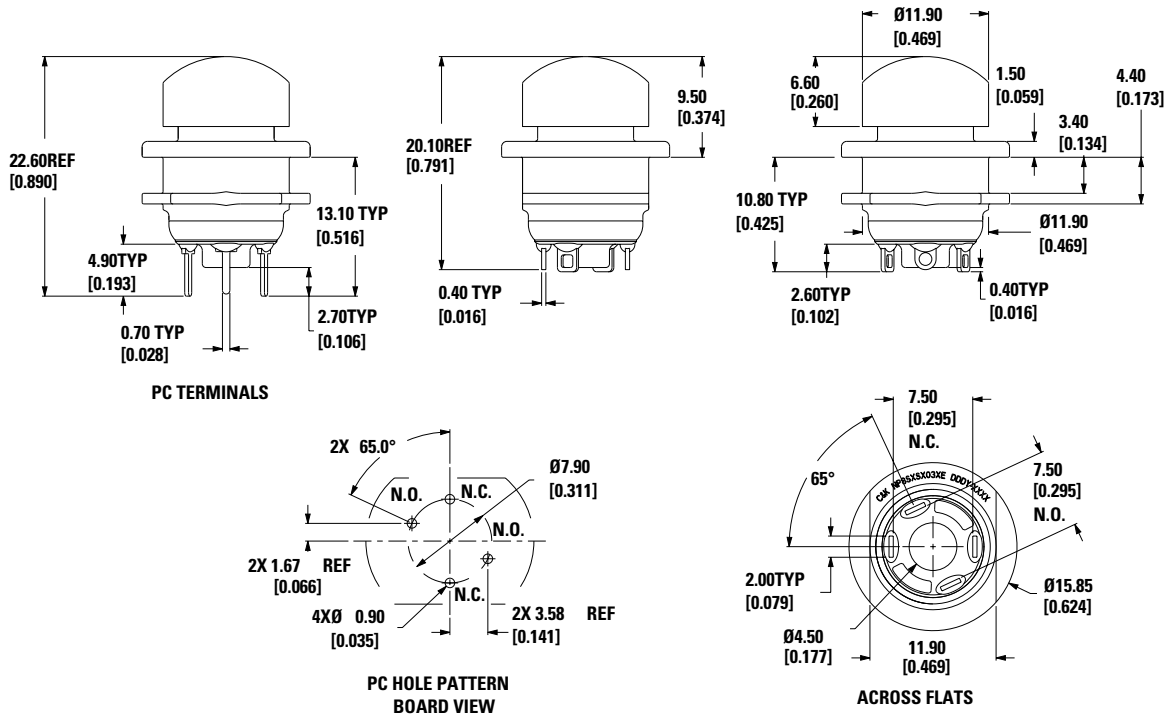


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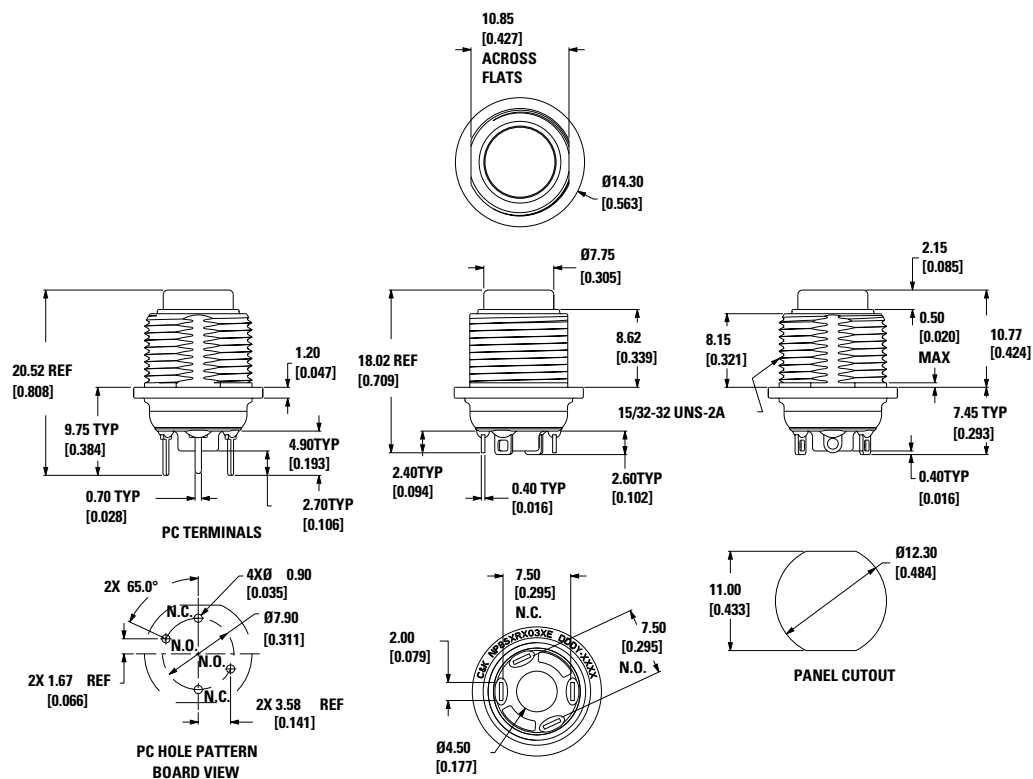
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S Slot Mount



R Rear Mount

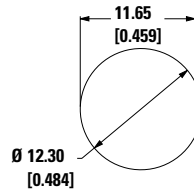


NP Series

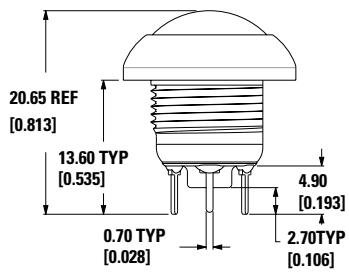
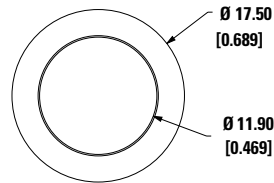
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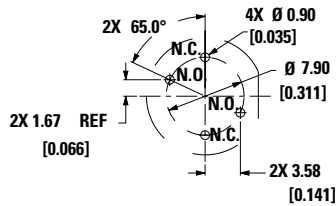
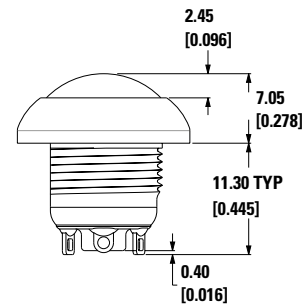
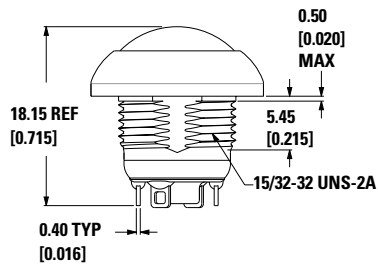
D Dome Bezel



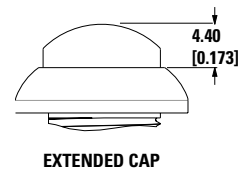
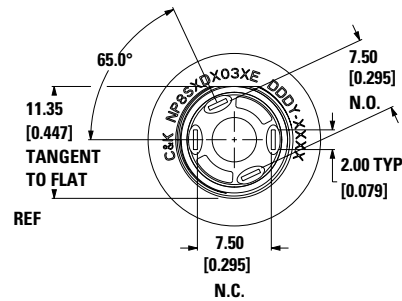
PANEL CUTOUT



PC TERMINALS



PC HOLE PATTERN
BOARD VIEW



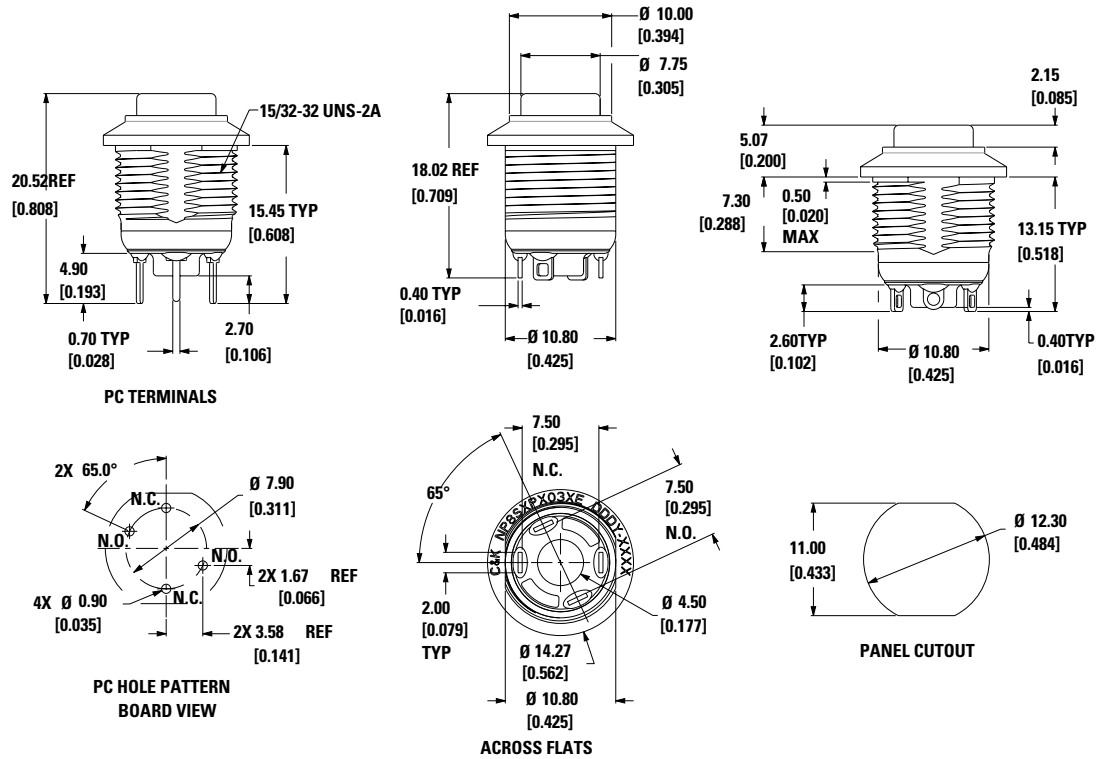
EXTENDED CAP

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P Tapered Bezel

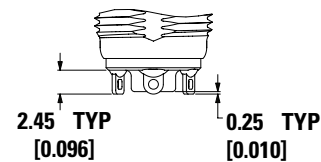


Housing Anodizing Color

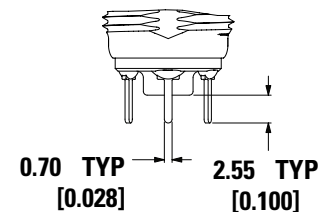
Option Code	Anodizing Color
1	Clear anodized
2	Black anodized (STD)

Termination

03 Solder Lug (STD)



02 PC Pin (G Contact Material)

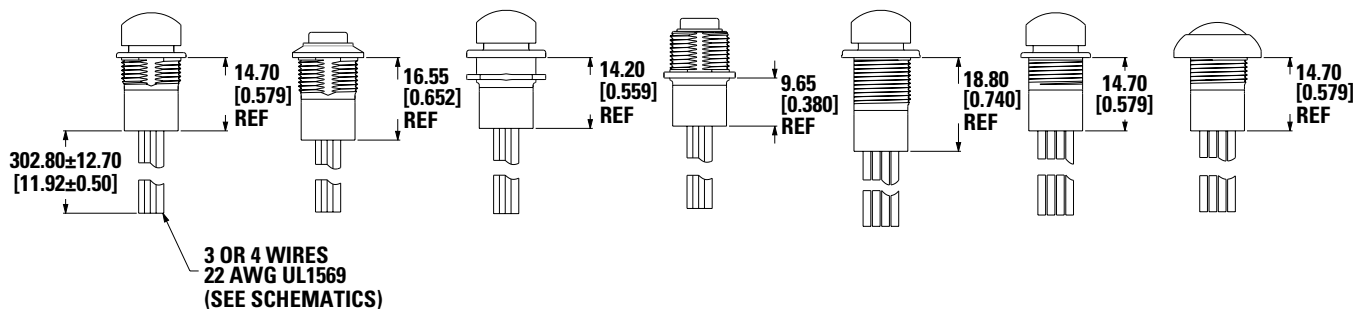


NP Series

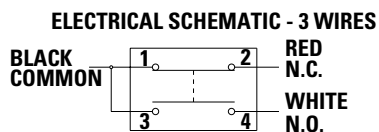
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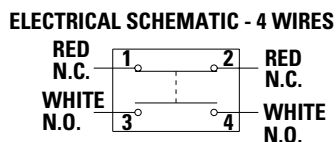
Termination



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



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



Contact Material

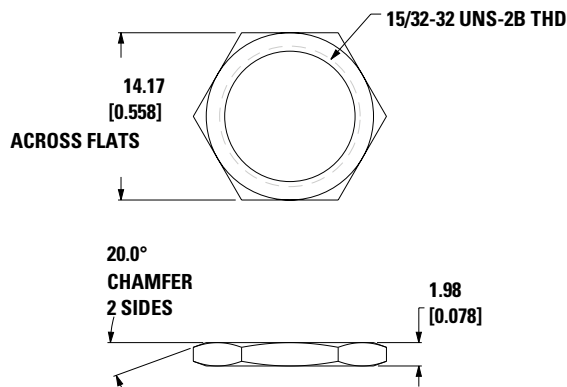
Option Code	Contact Material
Q	Silver (STD)
G	Gold over silver

Terminal Seal

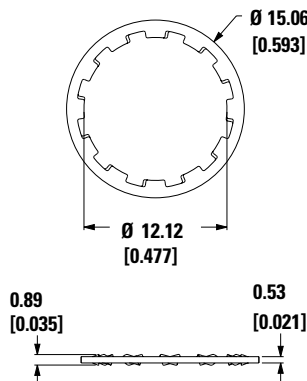
E Epoxy
All models are epoxy sealed

Hardware

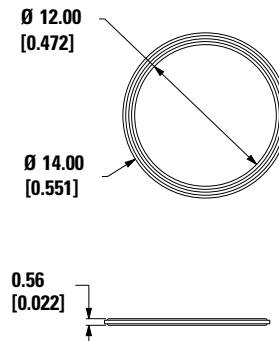
Hex Nut 707100201 Nickel-Plated



Lockwasher 700302202



Panel Gasket 851D02000



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