



NP Series

Sealed Industrial Pushbutton Switch

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.

Designation <u>NP</u>		Operating Force <u>8</u>		Actuator Style <u>S</u>		Actuator Color* <u>1</u>		Housing Style <u>T</u>		Terminal Seal <u>E</u>		Contact Material <u>Q</u>		Termination <u>03</u>		Housing Anodizing Color <u>1</u>	
NP Series		8 Newtons		Standard		White		Standard threaded mount		Epoxy		Silver (STD)		Solder Lug (STD)		Clear anodized	
				Extended (D housing style only)		Black (STD)		Long threaded mount		All models are epoxy sealed		Gold over silver		4x 12" 22 AWG UL1569 wire (overmolded)		Black anodized (STD)	
						Orange		Short threaded mount						3x 12" 22 AWG UL1569 wire (overmolded)			
						Yellow		Slot mount									
						Green		Rear mount									
						Blue		Dome bezel									
						Gray		Tapered bezel									

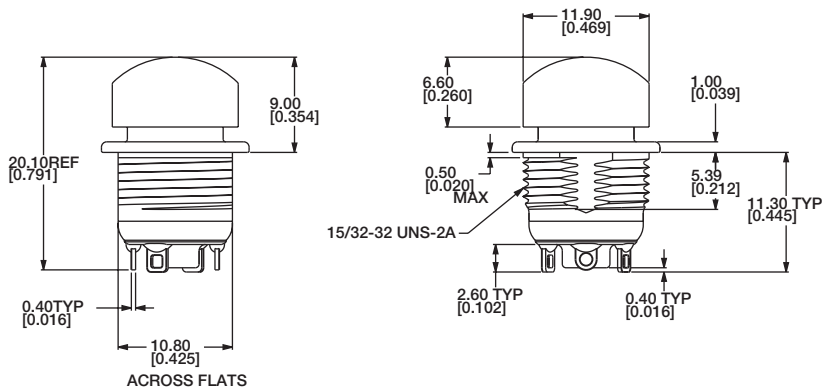
* Please contact Customer Service for additional colors.

NP Series Sealed Industrial Pushbutton Switch



A
Pushbutton

STANDARD VIEW



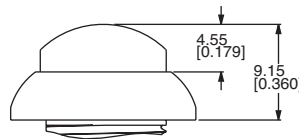
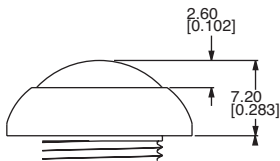
OPERATING FORCE

OPTION CODE	OPERATING FORCE
8	8 N

ACTUATOR STYLE

S STANDARD

E EXTENDED (D HOUSING STYLE ONLY)



ACTUATOR COLOR

OPTION CODE	ACTUATOR COLOR
1	White
2	Black
3	Red
4	Orange
5	Yellow
6	Green
7	Blue
9	Gray

For additional colors please contact Customer Service.



4 May 20

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



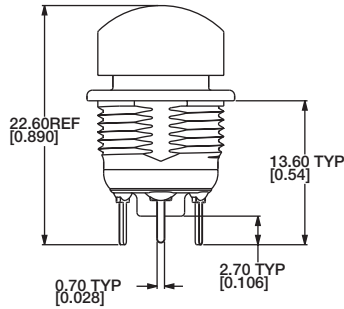
NP Series Sealed Industrial Pushbutton Switch

HOUSING STYLE

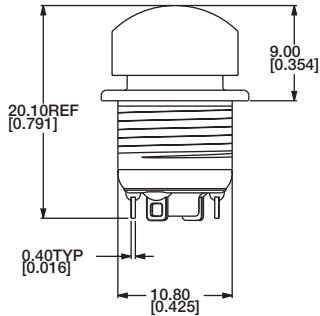
Pushbutton

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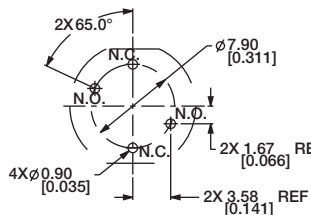
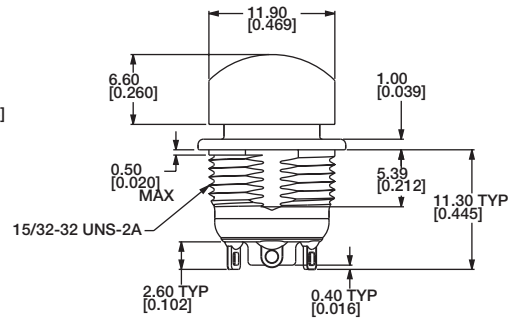
T STANDARD THREADED MOUNT



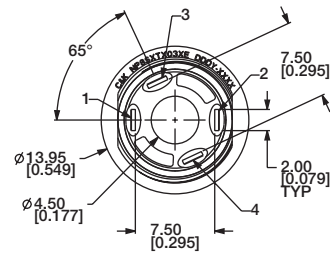
PC TERMINALS



ACROSS FLATS



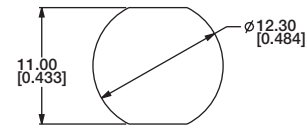
PC HOLE PATTERN
BOARD VIEW



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

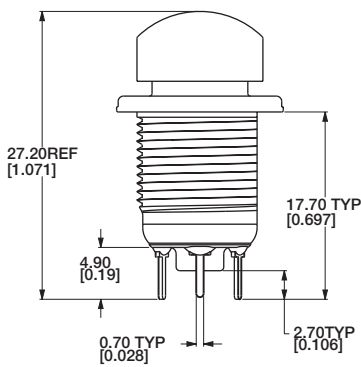
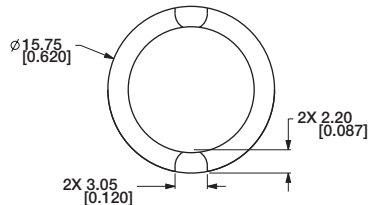


N.O.
(3 & 4)
SCALE 9:1

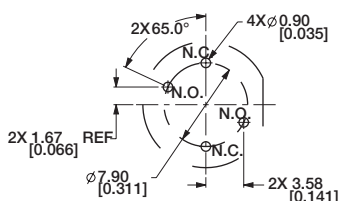
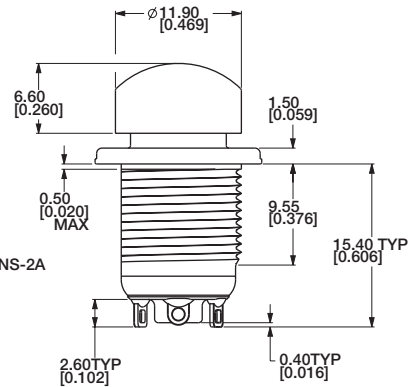
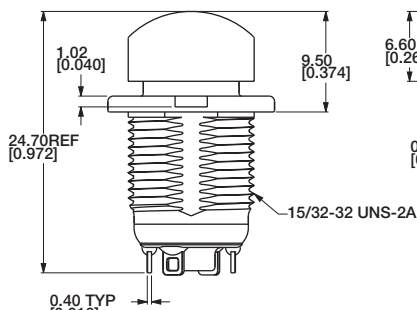


PANEL CUTOUT

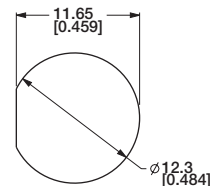
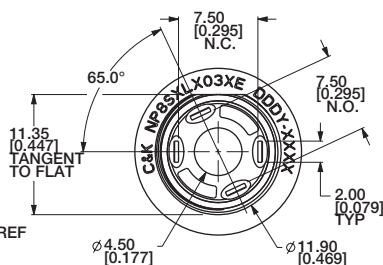
L LONG THREADED MOUNT



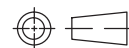
PC TERMINALS



PC HOLE PATTERN
BOARD VIEW



PANEL CUTOUT



Third Angle
Projection

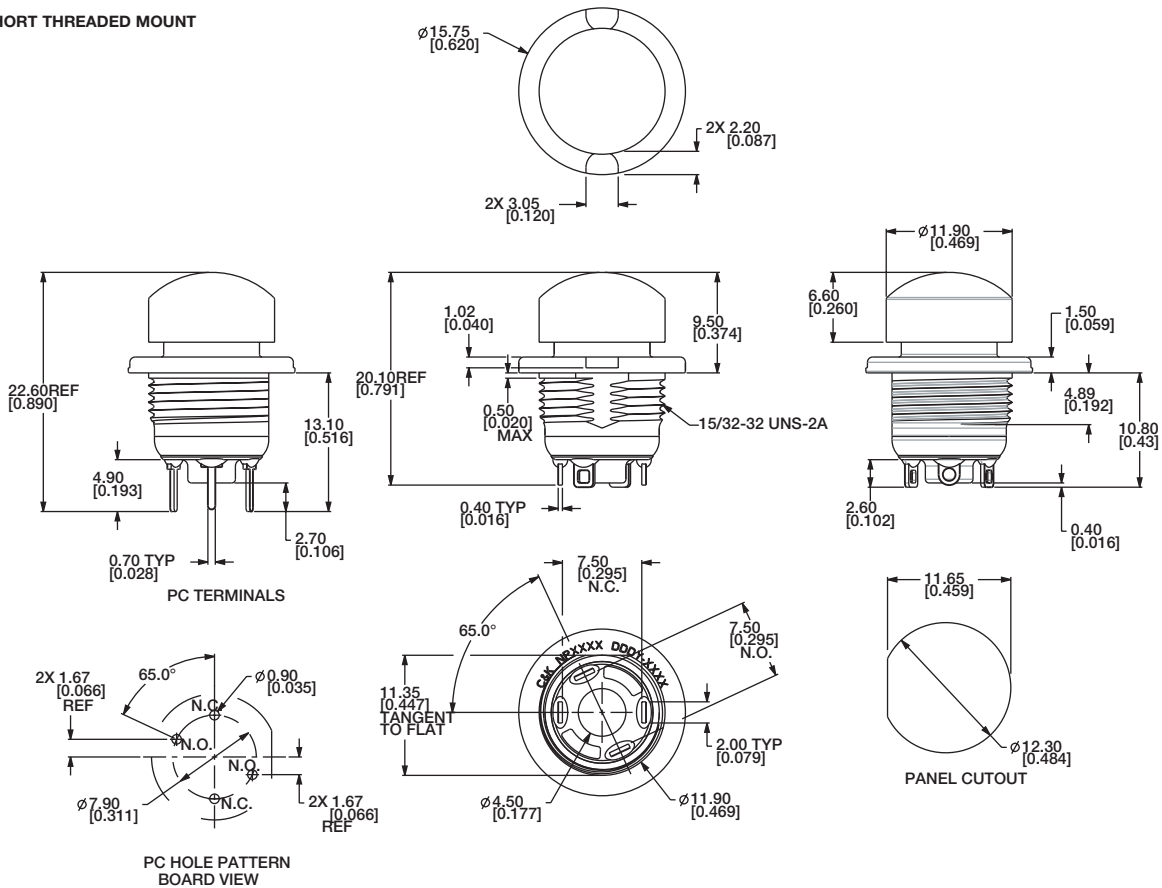
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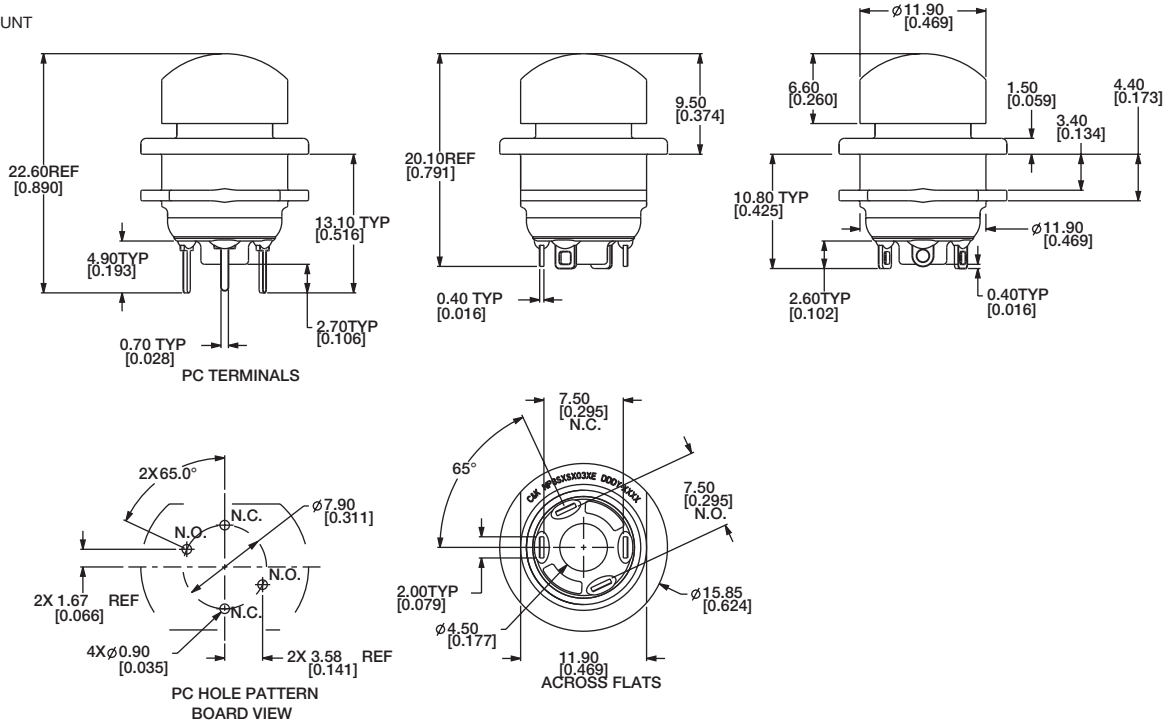
A
Pushbutton

HOUSING STYLE

H SHORT THREADED MOUNT



S SLOT MOUNT

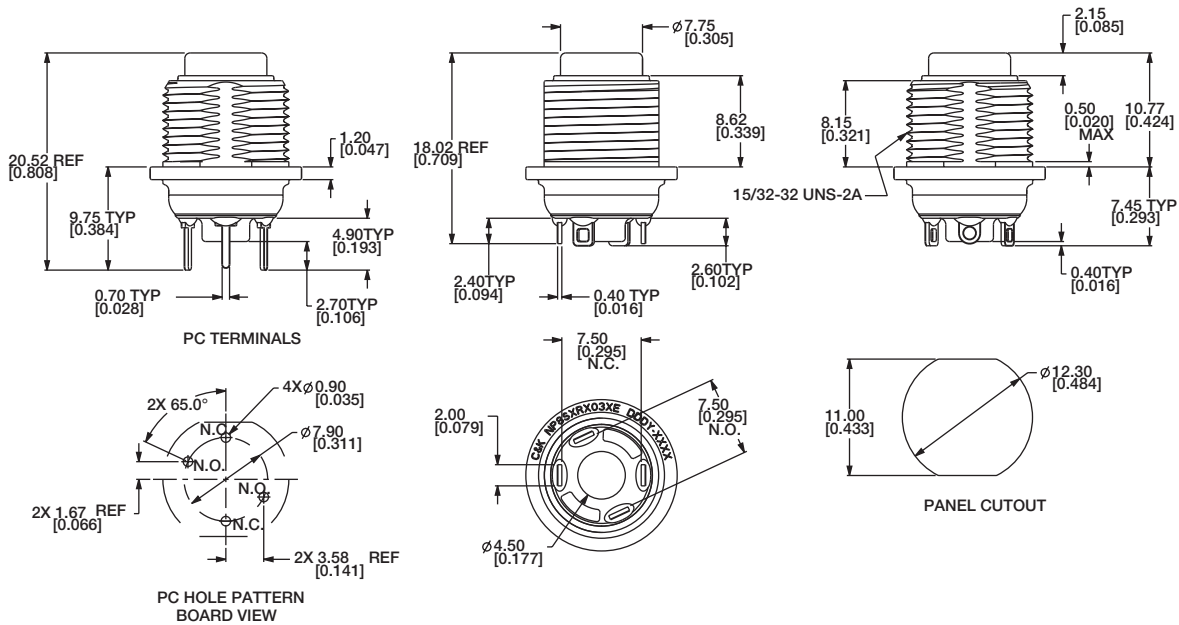
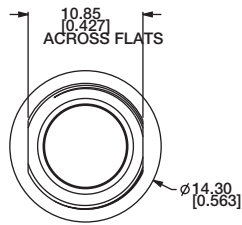




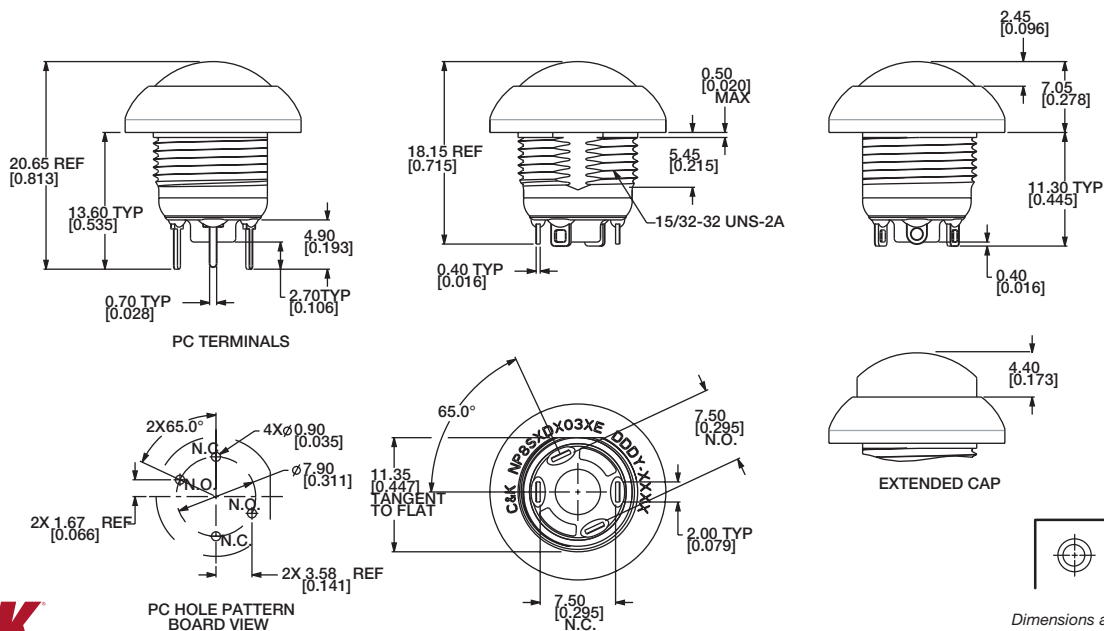
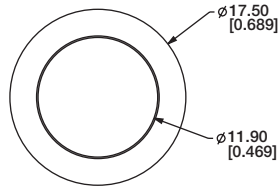
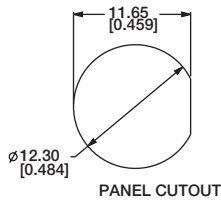
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HOUSING STYLE

R REAR MOUNT



D DOME BEZEL



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

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www.ckswitches.com

Pushbutton

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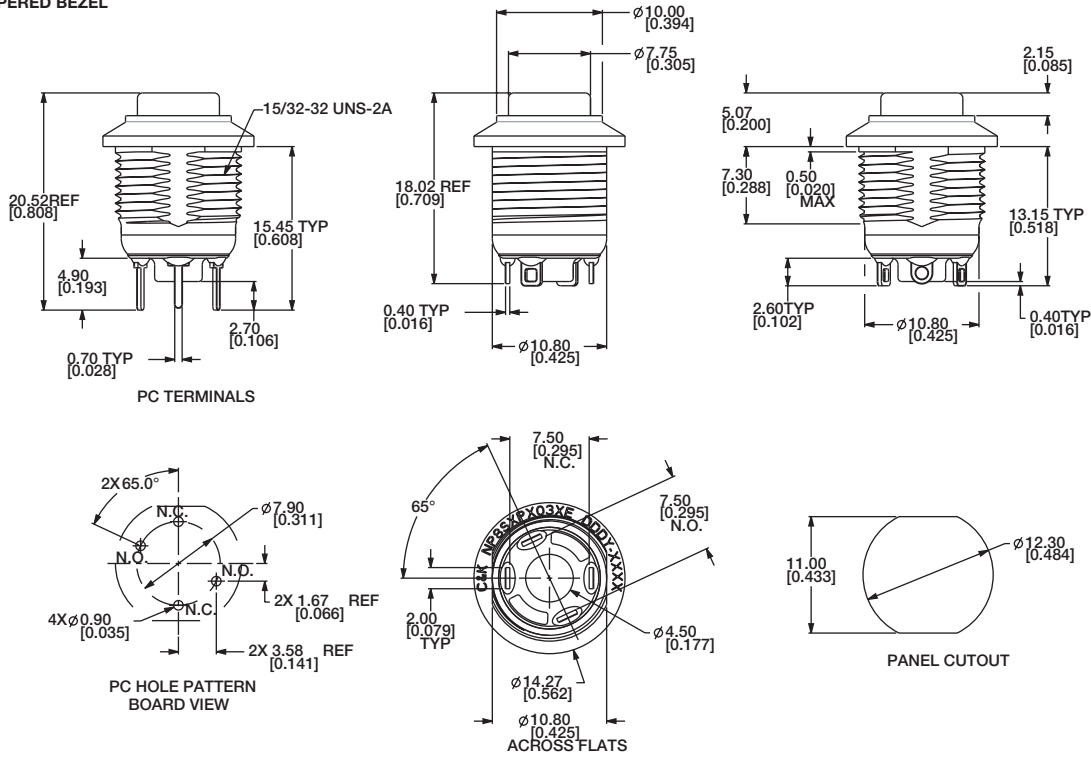


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Pushbutton

HOUSING STYLE

P TAPERED BEZEL

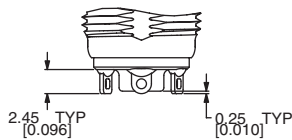


HOUSING ANODIZING COLOR

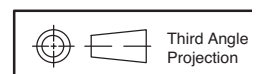
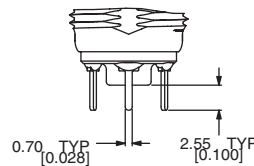
OPTION CODE	ANODIZING COLOR
1	Clear anodized
2	Black anodized (STD)

TERMINATION

03 SOLDER LUG (STD)



02 PC PIN (G CONTACT MATERIAL)



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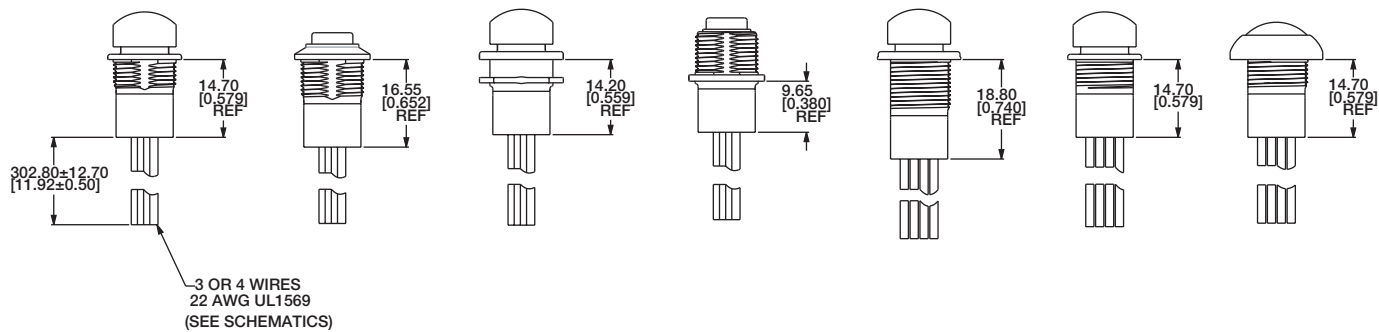


NP Series Sealed Industrial Pushbutton Switch

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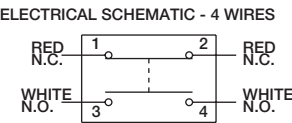
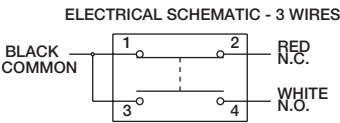
Pushbutton

TERMINATION



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

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



CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL
Q	Silver (STD)
G	Gold over Silver

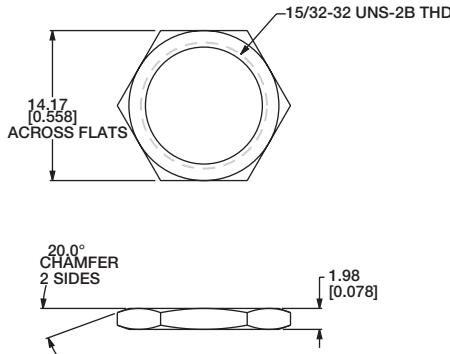
TERMINAL SEAL

E EPOXY

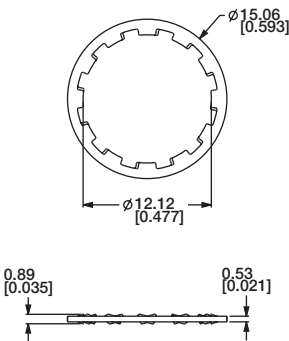
All models are epoxy sealed

HARDWARE

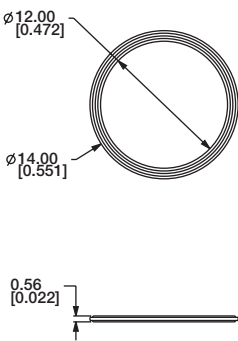
HEX NUT
707100201 Nickel-plated



LOCKWASHER
700302202



PANEL GASKET
851D02000



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

Mouser Electronics

Authorized Distributor

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C&K Switches:

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[NP8S5P203QE](#) [NP8S3T203QE](#) [NP8S2R203QE](#) [NP8S3P203QE](#) [NP8S2T203QE](#) [NP8S2R202GE](#) [NP8S5T203QE](#)
[NP8S3L203QE](#) [NP8S5D203QE](#) [NP8E3D202GE](#) [NP8S2T202GE](#) [NP8S9T2W3QE](#) [NP8S2T103QE](#) [NP8S2T2W3QE](#)
[NP8E3D203QE](#) [NP8S3R2W3GE](#) [NP8S3R202GE](#) [NP8S2P2W3QE](#) [NP8S9T203QE](#) [NP8S2R2W4QE](#)
[NP8S5P2W4QE](#) [NP8E5D202GE](#) [NP8S4T2W4QE](#) [NP8S2D2W4GE](#) [NP8S2R203GE](#) [NP8S2R2W3GE](#)
[NP8S2T203GE](#) [NP8S2H203QE](#)