

# SEALED DOME PUSHBUTTON SWITCHES

**P9L**  
DOME  
PUSHBUTTONS

LOW LEVEL MOMENTARY ACTION, ATTRACTIVE & RUGGED FOR WET & DUSTY ENVIRONMENTS

The P9L Dome series low level pushbutton switches feature a contoured dome style pushbutton and share similar size and characteristics to the P7 series. Major differences are plastic housing construction and the availability of a shorting bar contact arrangement. There are two button versions: low button profile and high button profile. The P9L comes with a threaded case for hex nut mounting or with a snap-in case. The switch series features short behind panel depth. They also offer excellent mechanical and electrical performance while operating under severe conditions found in demanding applications.

The P9L Dome series is offered in dusttight and moistureproof sealed construction. One million mechanical operations and an electrical life of 500,000 operations at 50mA resistive.

Watertight sealing is available simply by adding a "W" suffix to the part number to specify IP68S rating.

The P9L Dome series is available in standard and low-force double break snap-action and non-snap shorting bar models. All are momentary action. Special contact variations are available. High contact pressure and unique contact design provide low contact resistance for low level switching capability. Solder, PC Pin, and 0.110" Quick Connect termination options are available.

Positive tactile feedback signaling the operator when the switch is operated is available in snap-action models but not shorting bar models.

The P9L Dome series is a quality precision switch designed for use in panels, control grips, computers, instruments and other demanding applications where attractive, rugged low level pushbutton switches are required.

## Features:

- **Low level switch**
- **Attractive dome style button**
- **2 button heights**
- **Double break or shorting bar, momentary action**
- **All plastic housing & button construction**
- **Threaded body or snap-in panel mounting**
- **Withstands extreme shock & vibration**
- **Positive tactile feedback contact transfer on snap-action models**
- **Solder, PC Pin & 0.110" Quick Connect terminal styles**
- **Moistureproof & dusttight to IP64 or watertight to IP68S**
- **UL recognized & CSA certified**
- **RoHS/WEEE/Reach compliant**



### Standard Characteristics/Ratings:

#### ELECTRICAL RATINGS:

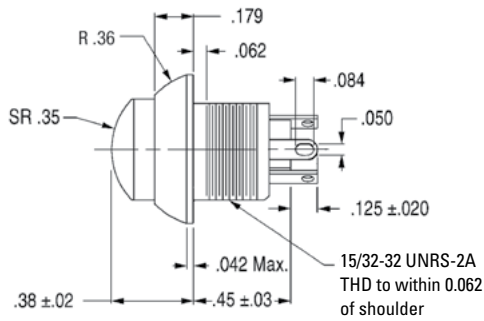
<b>Load</b>	Sea Level @ 28VDC or 115VAC, 60/400Hz
Resistive	50mA
DWV	1050Vrms
<b>Electrical Life:</b>	500,000 cycles 50mA @ 28VDC resistive snap-action
<b>Mechanical Life:</b>	500,000 cycles
<b>Seal:</b>	IP64 or IP68S
<b>Operating Temp Range:</b>	-40°C to +85°C
<b>Operating Force:</b>	Standard: 1.7 lbs. +/- 0.5 lb. Low Force: 12 oz +/- 4 oz Shorting Bar: 18 oz +/- 6 oz
<b>Total Travel:</b>	0.080 inches max
<b>Overtravel:</b>	0.010 inches min

#### MATERIALS:

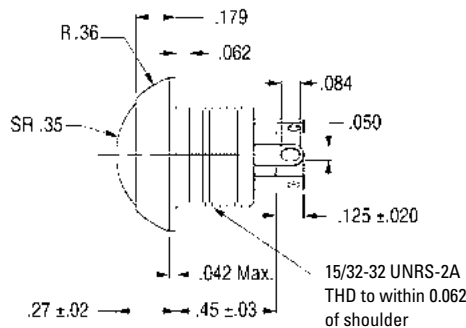
<b>Case:</b>	Thermoplastic
<b>Button:</b>	Thermoplastic
<b>Terminals:</b>	Brass with gold
<b>Terminal Hardware:</b>	None provided
<b>Mounting Hardware:</b>	Hex nut, lockwasher Panel gasket when applicable

# SEALED DOME PUSHBUTTONS

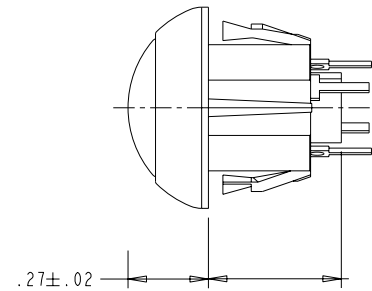
## CHOICE OF SNAP-ACTION & SHORTING BAR ACTION



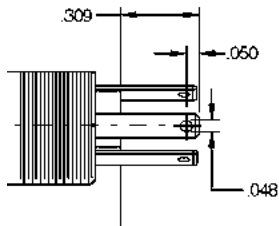
**Raised Dome Button Style**



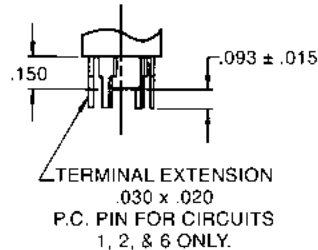
**Flush Dome Button Style**



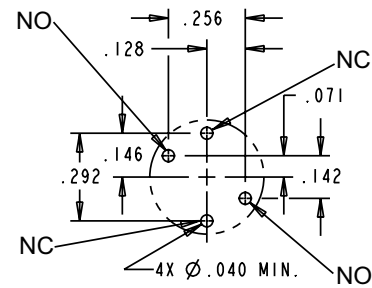
**Snap-In Case**  
(PC Terminals Shown)



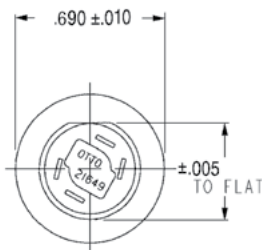
**.110" Quick Connect Detail**



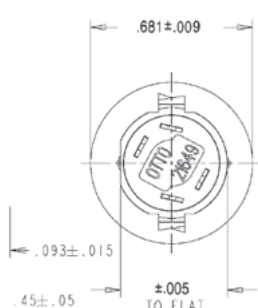
**TERMINAL EXTENSION**  
.030 x .020  
P.C. PIN FOR CIRCUITS  
1, 2, & 6 ONLY.



**Component Side**  
**P.C. Mounting Pattern**  
(As viewed from switch bottom)



**Solder Terminals**  
(Terminals not  
orientated to flat)  
Threaded Case



**PC Pin**  
(Orientated to case  
flats as shown)  
Snap-In Case

Recommended Panel Openings		
*Panel Thickness	Recommended Ø	DIM. Across D-Flat
0.024*	0.505	0.460
0.031	0.505	0.460
0.118*	0.505	0.460
0.125	0.505	0.460

\* Must use panel gasket 401669 supplied with the switch.

- Snap-in case allows front panel mounting into 0.024" or 0.118" thick panels using panel gasket 401669 or into 0.031" and 0.125" thick panels
- 0.110" Quick Connect terminals allow reliable, solderless wire connections
- Flush Neoprene Boot P/N 402339
- Raised Neoprene Boot P/N 402246

## ORDERING INFORMATION:

Select the OTTO P9L series features that match your specific application. Standard and special features are shown at right. Specify your choice by building the OTTO Part Number code.

**Example:** P9L-211121 specifies raised dome style button, threaded case, solder terminals, N.O. circuit form, standard snap-action, black case/bezel, red button.

P9L PART NUMBER CODE								
P9L	—	X	X	X	X	X	*	
Button & Case Style***			Terminal Style	Circuit Form	Switch Action	Case/ Bezel Color		Button Color
1. Flush Dome & Threaded Case, Std. Finish			1. Solder	1. N.O.	1. Standard Snap-Action	1. Red		1. Red
2. Raised Dome & Threaded Case, Std. Finish			2. PC Pin	2. N.C. ①	2. Low Force Snap-Action	2. Black		2. Black
3. Flush Dome & Snap-In Case, Std. Finish			3. 0.110"	3. 2 Circuit ①	3. Non-Snap Shorting Bar	3. Orange**		3. Orange
4. Raised Dome & Snap-In Case, Std. Finish			Quick Connect			4. Yellow**		4. Yellow
5. Flush Dome & Threaded Case, Matte Finish						5. Green**		5. Green
6. Raised Dome & Threaded Case, Matte Finish						6. Blue**		6. Blue
7. Flush Dome & Snap-In Case, Matte Finish						7. Violet**		7. Violet
8. Raised Dome & Snap-In Case, Matte Finish						8. Gray**		8. Gray
						9. White		9. White

① Not available in Shorting Bar version.

\* Add "W" suffix for watertight to IP68S.

\*\* Contact factory for minimum requirement.

\*\*\* Contact factory for std./matte button/case combination options.

# Mouser Electronics

Authorized Distributor

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