

# SEALED DOME PUSHBUTTON SWITCHES

**P9**  
DOME  
PUSHBUTTONS

MOMENTARY ACTION, ATTRACTIVE & RUGGED FOR WET & DUSTY ENVIRONMENTS

The P9 Dome series pushbutton switches feature a contoured dome style pushbutton and share similar size and characteristics to the P7-D series. Major differences are plastic housing construction and the availability of a shorting bar contact arrangement. There are two button versions: flush button profile and raised button profile, and two bezel versions: standard and small. The P9 comes with a threaded case for hex nut mounting or with a snap-in case. The switch series features short behind panel depth and offers excellent mechanical and electrical performance while operating under severe conditions found in demanding applications.

The P9 Dome series is offered in dusttight and moistureproof sealed construction. One million mechanical operations and an electrical life of 25,000 operations at full rated load of 5 amps resistive or 3 amps inductive.

Watertight sealing to IP68S and IP69K is available simply by adding a "W" suffix to the part number.

The P9 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 logic level switching capability as well as full rated service. 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 P9 Dome series is a quality precision switch designed for use in panels, control grips, computers, instruments, heavy equipment and other demanding applications where attractive, rugged pushbutton switches are required.

## Features:

- Flush and raised dome button styles in gloss or matte finish
- Small bezel option
- 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 and IP69K
- UL recognized & CSA certified
- RoHS compliant



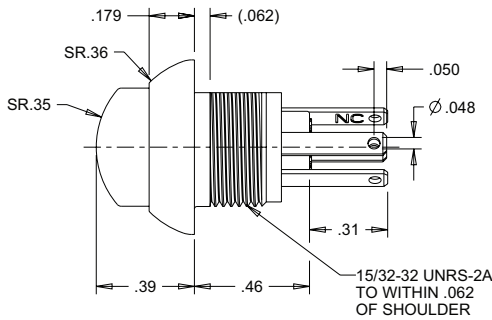
Standard Characteristics/Ratings:		
<b>ELECTRICAL RATINGS:</b> Sea Level @ 28VDC or 115VAC, 60/400Hz		
<b>Load</b>	<b>N.O./N.C.</b>	<b>2 Circuit</b>
Resistive	5A	4A
Inductive	3A	2A
DWV	1050Vrms	
Logic Level	10mA @ 5 VDC	
<b>Electrical Life:</b>	25,000 cycles	
<b>Mechanical Life:</b>	1,000,000 cycles	
<b>Seal:</b>	IP64 or IP68S and IP69K	
<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	
<b>MATERIALS:</b>		
<b>Case:</b>	Thermoplastic	
<b>Button:</b>	Thermoplastic	
<b>Terminals:</b>	Brass with gold over silver	
<b>Terminal Hardware:</b>	None provided	
<b>Mounting Hardware:</b>	Hex nut, lockwasher Panel gasket when applicable	



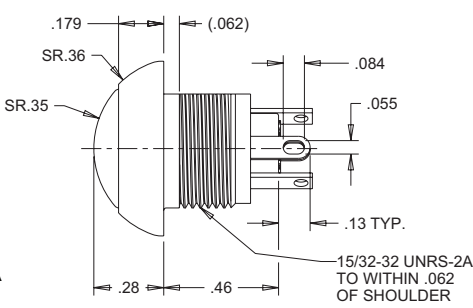
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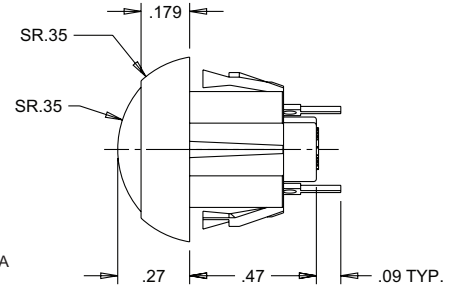
CHOICE OF SNAP-ACTION & SHORTING BAR ACTION



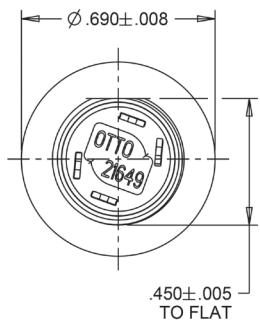
**Raised Dome Button Style**



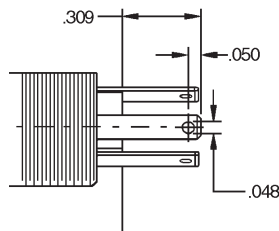
**Flush Dome Button Style**



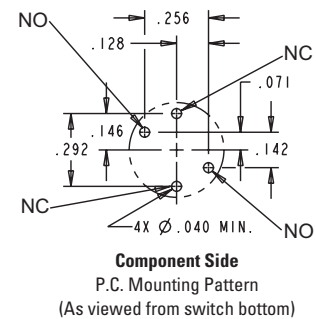
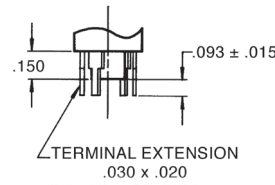
**Snap-In Case  
(PC Terminals Shown)**



**Threaded Case Terminal Detail**



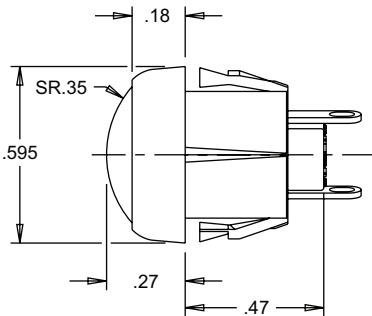
**0.110" Quick Connect Detail**



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

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 C401669 supplied with the switch.



**Flush Dome Small Bezel Style**

- Snap-in case allows front panel mounting into 0.024" or 0.118" thick panels using panel gasket C401669 (C807516 for case styles 9 and A) or into 0.031" and 0.125" thick panels
- 0.110" Quick Connect terminals allow reliable, solderless wire connections
- Flush Neoprene Black Boot P/N C402339
- Raised Neoprene Black Boot P/N C402246
- Flush Silicone Translucent Boot P/N C402599-1
- Raised Silicone Translucent Boot P/N C402611-1

**ORDERING INFORMATION:**

Select the OTTO P9 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:** P9-211121 specifies raised dome style button, threaded case, solder terminals, N.O. circuit form, standard snap-action, black case/bezel, red button.

**P9 PART NUMBER CODE**

P9 - X X X X X \*

<b>Button &amp; Case Style***</b>	<b>Terminal Style</b>	<b>Circuit Form</b>	<b>Switch Action</b>	<b>Case/Bezel Color</b>	<b>Button Color</b>
<ol style="list-style-type: none"> <li>Flush Dome &amp; Threaded Case, Std. Finish</li> <li>Raised Dome &amp; Threaded Case, Std. Finish</li> <li>Flush Dome &amp; Snap-In Case, Std. Finish</li> <li>Raised Dome &amp; Snap-In Case, Std. Finish</li> <li>Flush Dome &amp; Threaded Case, Matte Finish</li> <li>Raised Dome &amp; Threaded Case, Matte Finish</li> <li>Flush Dome &amp; Snap-In Case, Matte Finish</li> <li>Raised Dome &amp; Snap-In Case, Matte Finish</li> <li>Flush Dome &amp; Snap-In Case, Std. Finish, Small Bezel</li> <li>Raised Dome &amp; Snap-In Case, Std. Finish, Small Bezel</li> </ol>	<ol style="list-style-type: none"> <li>Solder</li> <li>PC Pin</li> <li>0.110" Quick Connect</li> </ol>	<ol style="list-style-type: none"> <li>N.O.</li> <li>N.C. ①</li> <li>Circuit ①</li> </ol>	<ol style="list-style-type: none"> <li>Standard Snap-Action</li> <li>Low Force Snap-Action</li> <li>Non-Snap Shorting Bar</li> </ol>	<ol style="list-style-type: none"> <li>Red</li> <li>Black</li> <li>Orange**</li> <li>Yellow**</li> <li>Green**</li> <li>Blue**</li> <li>Violet**</li> <li>Gray**</li> <li>White</li> </ol>	<ol style="list-style-type: none"> <li>Red</li> <li>Black</li> <li>Orange</li> <li>Yellow</li> <li>Green</li> <li>Blue</li> <li>Violet</li> <li>Gray</li> <li>White</li> </ol>

① Not available in Shorting Bar version.

\* Add "W" suffix for watertight to IP68S and IP69K (will include panel gasket)

\*\* Contact factory for minimum requirement.

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