# SEALED DOME PUSHBUTTON SWITCHES

### MOMENTARY ACTION, ATTRACTIVE & RUGGED FOR WET & DUSTY ENVIRONMENTS

The P9 Dome switches feature a contoured dome style pushbutton and share similar size and characteristics to the P7-D series. 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.

The P9 Dome series is offered in dusttight and moisture proof sealed construction. Mechanical life is 1.25 million operations and the electrical life is 25,000 operations at full rated load.

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. 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 also available.

Positive tactile feedback signals the operator when the switch is actuated.

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.

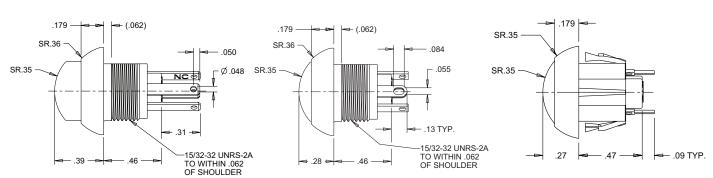
## **Features:**

- Flush and raised dome button styles in gloss or matte finish
- **Small bezel option**
- **Double break, 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
- Mechanical life is 1.25 million cycles
- Solder, PC Pin & 0.110" Quick Connect terminal styles
- Moistureproof & dusttight to IP64 or watertight to IP68S and IP69K
- **RoHS** compliant



LECTRICAL RATINGS:			
.oad	N.O./N.C.	2 Circuit	Life
Resistive: 28VDC	5A	4A	25,000 cycles
Resistive: 115VAC, 60Hz	3A	1A	25,000 cycles
Inductive: 28VDC	2A	2A	25,000 cycles
DWV	1050Vrms		
Logic Level	10mA @ 5 VE	OC	1,250,000 cycles
Mechanical Life:	1,250,000 cyc	eles	
Seal:	IP64 or IP68S	and IP69K	
Operating Temp Range:	-40°C to +85°	°C	
Operating Force:	Standard: 1.7	7 lbs. +/- 0.5 lb.	
	Low Force: 1	2 oz +/- 4 oz	
Total Travel:	0.080 inches	max	
Overtravel:	0.010 inches	min	
MATERIALS:			
Case:	Thermoplast	ic	
Button:	Thermoplast	ic	
Terminals:	Brass with g	old	
Terminal Hardware:	None provide	ed	
Mounting Hardware:	Hex nut, lock	washer t when applicable	

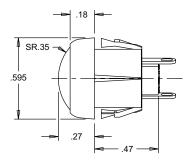
#### CHOICE OF SNAP-ACTION & SHORTING BAR ACTION



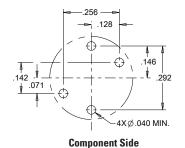
**Raised Dome Button Style** 

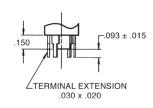
Flush Dome Button Style

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



Ø.690±.008

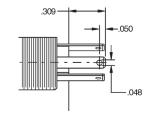




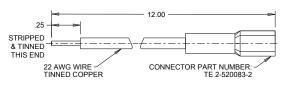
Flush Dome Small Bezel Style

**Threaded Case Terminal Detail** 

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



0.110" Quick Connect Detail



**Wire Leads with Quick Connect** 

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

<sup>\*</sup> Must use panel gasket C401669-000025 supplied with the switch.

- Snap-in case allows front panel mounting into 0.024" or 0.118" thick panels using panel gasket C401669-000025 (C807516-000025 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

**P9 PART NUMBER CODE** 

## **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.

Button 8	& Case St	vle**
Dutton	a 0000 01	,.0

<ol> <li>Flush Dome &amp; Threaded Case, Std. Finish</li> </ol>
2. Raised Dome & Threaded Case, Std. Finish
3. Flush Dome & Snap-In Case, Std. Finish
4. Raised Dome & Snap-In Case, Std. Finish
5. Flush Dome & Threaded Case, Matte Finish

- 5. Raised Dome & Threaded Case, Matte Finish
  7. Flush Dome & Snap-In Case, Matte Finish
  8. Raised Dome & Snap-In Case, Matte Finish
  9. Flush Dome & Snap-In Case, Std. Finish
  9. Flush Dome & Snap-In
- Small Bezel

  A. Raised Dome & Snap-In Case, Std. Finish,
  Small Bezel

#### **Terminal Style** Circuit **Switch Action** Case/ Button **Bezel Color** Form Color 1. Solder **1.** N.O. 1. Standard Snap-Action **1.** Red **1**. Red 2. PC Pin 2. N.C. 3 2. Low Force Snap-Action 2. Black 2. Black 3. 0.110" Quick 3. 2 Circuit 3 3. Non-Snap Shorting Bar 3. Orange\*\*\* 3. Orange Connect (QC) 4. Yellow\*\*\* 4. Yellow 4. 0.110" QC with 2 5. Green\*\*\* 5. Green **6.** Blue\*\*\* Wire Leads ① 6. Blue 5. 0.110" QC with 4 7. Violet\*\*\* 7. Violet 8. Gray\*\*\* 8. Grav Wire Leads ② 9. White 9. White

- ① For Circuit Form 1 and 2. (1 black & 1 white lead)
- @ For Circuit Form 3. (2 black & 2 white leads)
- Not available in Shorting Bar version.
- \* Add "W" suffix for watertight to IP68S and IP69K (will include panel gasket).
- \*\* Contact factory for std./matte button/case combination options.
- \*\*\* Contact factory for minimum requirement.

## **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## OTTO:

P9-113121W P9-113122W P9-113125W P9-213129W P9-313121W P9-313125W P9-313122W P9-413129W P9-211122W P9-111326 P9-321121 P9-121125 P9-3111228 P9-421123W P9-111128 P9-131324W P9-132121 P9-211126 P9-211323 P9-212125 P9-232221 P9-331125W P9-411225W P9-113229 P9-122221 P9-131121 P9-711228 P9-811126 P9-111228 P9-111321W P9-113126W P9-113196 P9-321224 P9-331129 P9-413129 P9-433124 P9-513124 P9-512121 P9-7113126W P9-113196 P9-321224 P9-331129 P9-413129 P9-411128 P9-411228W P9-411322 P9-512121 P9-711312W P9-711322W P9-712121 P9-831122 P9-333121 P9-411128 P9-411228W P9-411322 P9-431222 P9-511121W P9-111144 P9-331128 P9-331224 P9-411226 P9-412122 P9-431122W P9-311121W P9-311122W P9-311122W P9-311122W P9-311122W P9-231122 P9-231122 P9-231123 P9-231123 P9-231124 P9-332199 P9-233121 P9-211225 P9-213129 P9-222225W P9-231121W P9-231129 P9-231221 P9-331124 P9-332199 P9-511226 P9-513128 P9-633229 P9-713125 P9-113129 P9-121224 P9-131129 P9-211125W P9-211127 P9-211128 P9-331123 P9-112125 P9-111166 P9-11321 P9-112124 P9-112222 P9-513224 P9-613129 P9-211127 P9-211128 P9-331123 P9-112125 P9-113128 P9-113129 P9-113129 P9-112124 P9-112222 P9-513224 P9-613129 P9-711221 P9-231121 P9-231125W P9-311321W P9-113128 P9-113129 P9-112124 P9-112222 P9-513224 P9-613129 P9-711221 P9-231121 P9-231125W P9-311321W P9-113128 P9-113129 P9-112124 P9-112222 P9-513224 P9-613129 P9-711221 P9-231121 P9-231125W P9-311321W P9-113128 P9-113192 P9-1121224 P9-5131229 P9-5131224 P9-613129 P9-711212 P9-231121 P9-231125W P9-311321W P9-113128 P9-113129 P9-113129 P9-113129 P9-113129 P9-113129 P9-113129 P9-113129 P9-331123 P9-331125W P9-331321W P9-113128 P9-113129 P9-113129 P9-113129 P9-113129 P9-331123 P9-331123 P9-331323W P9-331323W P9-113128 P9-113132 P9-113129 P9-331323W P9-331323W P9-3331324 P9-333324 P9-3333