

MOMENTARY ACTION, SEALED SUBMINIATURE PUSHBUTTON SNAP-ACTION SWITCHES

The P7 series incorporates OTTO's patented double break design in a significantly smaller package than the P1 series. These subminiature switches embrace today's technology requirements by allowing for a large number of switches to fit within a faceplate or a small panel space.

The long life snap-action design offers low contact resistance (25mΩ max initial) and is protected from the environment by a silicone rubber boot, operating on a "rolling sleeve" principle that gives long sealed life and smooth operation.

The P7 series is designed to meet the requirements of MIL-PRF-8805 including low level switching (10mA @ 30mV) with power switching up to 5 amps at 28VDC as well.

A variety of mounting styles are offered to best match the application. The P7-1, P7-2, P7-7 and P7-8 case styles feature a swaged bushing shape to allow press fit installation in aircraft flight control and hand grips and similar applications. The other styles feature threaded bushing mounting. The P7-3 and P7-A case styles have a front panel bezel, while the P7-5 and P7-6 have conventional bushings for rear panel mounted installations. Silver or black bezels are standard. Other colors available on special order.

Pushbuttons are available in a choice of nine colors. Excellent tactile feedback assures the operator that contact transfer has been made.

A choice of MIL-SPEC and commercial versions of these switches are offered: Moistureproof and dusttight to IP64 and MIL-PRF-8805 Design 2 or watertight to IP68S and to MIL-PRF-8805 Design 3.

Features:

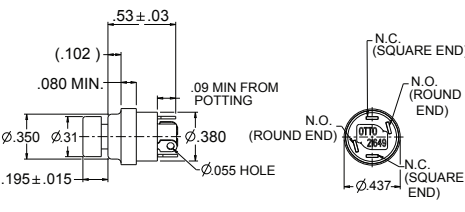
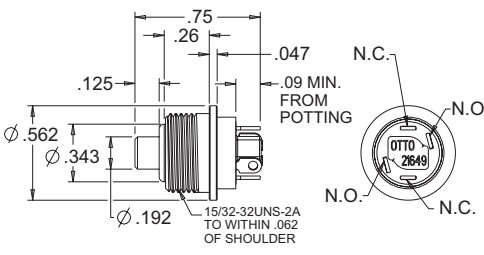
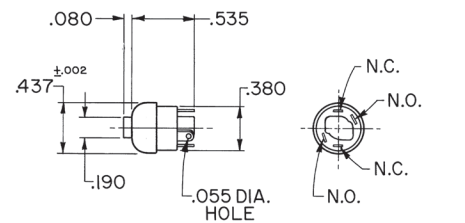
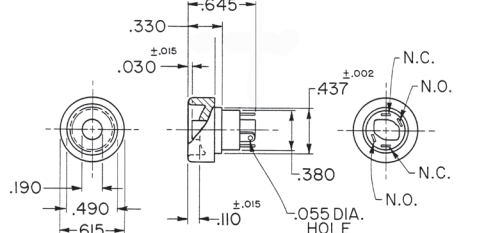
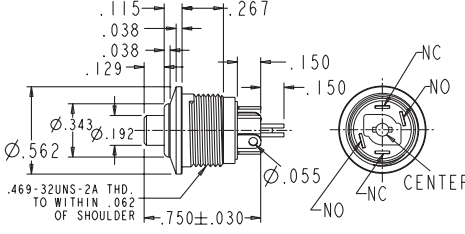
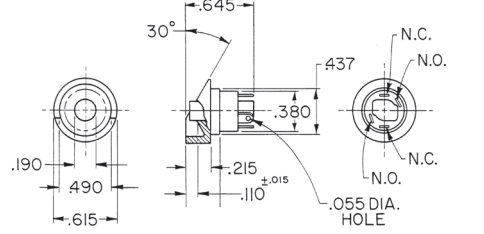
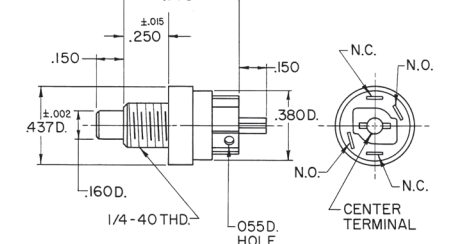
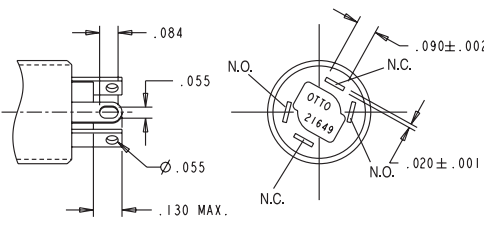
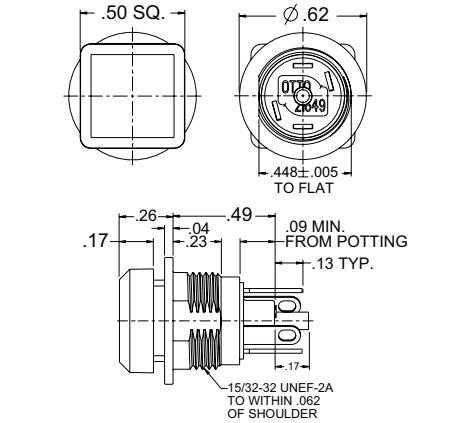
- Low level switching capability
- Less than 25mΩ initial contact resistance
- High contact pressure
- 6 circuit variations
- Positive tactile feedback
- Variety of mounting styles
- Square button option with case style A
- Qualified to MIL-PRF-8805/110
- Moistureproof and dusttight to IP64 and MIL-PRF-8805 Design 2 or Watertight to IP68S and MIL-PRF-8805 Design 3
- RoHS compliant



Standard Characteristics/Ratings:

ELECTRICAL RATINGS:		Sea Level @ 28VDC or 115VAC, 60Hz			50,000 feet @ 28VDC or 115VAC, 60Hz		
Load	Circuits:	1 & 2	3-5	6	1 & 2	3-5	6
Resistive		5A	2.5A	4A	5A	2.5A	4A
Inductive		3A	1.5A	2A	3A	1.5A	2A
Lamp		1A	0.5A	N/A	N/A	N/A	N/A
Motor		3A	1.5A	N/A	N/A	N/A	N/A
DWV		1050Vrms			400Vrms		
Center Contact		3A max					
Low Level		10mA @ 30mV					
Electrical Life:	25,000 cycles						
Mechanical Life:	1,000,000 cycles						
Seal:	Moistureproof and dusttight to IP64 and MIL-PRF-8805 Design 2 or Watertight to IP68S and MIL-PRF-8805 Design 3						
Operating Temp Range:	-55°C to +85°C						
Operating Force:	1.7 +/- 0.5 lb.						
Total Travel:	0.080 inches max						
Overtravel:	0.010 inches min						
MATERIALS:							
Case:	Anodized aluminum alloy						
Button:	Thermoplastic						
Terminals:	Brass with gold over silver						
Terminal Hardware:	None provided						
Mounting Hardware:	Hex nut, lockwasher and panel gasket when applicable						

SEALED AGAINST DUST & MOISTURE, LOW LEVEL SWITCHING OPTION

<p>P7-1 Series</p> <p>Case Style 1 Press Fit Mount</p> <p>Also available with PC terminals.</p>		<p>P7-6 Series</p> <p>Case Style 6 15/32" Threaded Bushing</p> <p>Also available with PC pins.</p>																																																																																																									
<p>P7-2 Series</p> <p>Case Style 2 Press Fit Mount</p> <p>Also available with PC pins.</p>		<p>P7-7 Series</p> <p>Case Style 7 Press Fit Mount</p> <p>Also available with PC pins.</p>																																																																																																									
<p>P7-3 Series</p> <p>Case Style 3 Bezel/Threaded Bushing</p> <p>Also available with PC pins.</p>		<p>P7-8 Series</p> <p>Case Style 8 Press Fit Mount Guarded Button</p> <p>Also available with PC pins.</p>																																																																																																									
<p>P7-5 Series</p> <p>Case Style 5 1/4" Threaded Bushing</p> <p>Also available with PC pins.</p>		<p>Terminal Style "A" & "B"</p> <p>Standard</p>																																																																																																									
<p>P7-A Series</p> <p>Case Style A 15/32" Threaded Bushing Square Button Shown</p> <p>Also available with PC pins and round buttons.</p> <p>Round Button versions do not have a D-flat.</p>		<p>Important Note: Because the base case interface has epoxy applied over it, dimensions to this surface are difficult to measure. This surface is not recommended as a hard stop, due to the extra variation of the epoxy surface.</p> <p>P7 PART NUMBER CODE</p> <table><tr><th>P7</th><th>-</th><th>X</th><th>X</th><th>X</th><th>X</th><th>X</th><th>X</th></tr><tr><th>Case Style</th><th>Terminal Style/Construction Grade</th><th>Circuit Form</th><th>Contact Rating</th><th>Case Color/ Button Dia.</th><th>Button Color</th><th></th><th></th></tr><tr><td>1. Style 1</td><td>A. Solder/Commercial</td><td>1. N.O.</td><td>1. Std.</td><td>1. Clear/Std.</td><td>1. Red</td><td></td><td></td></tr><tr><td>2. Style 2</td><td>B. Solder/Watertight Commercial</td><td>2. N.C.</td><td>2. Low Level</td><td>2. Black/Std.</td><td>2. Black</td><td></td><td></td></tr><tr><td>3. Style 3</td><td></td><td>3. N.C. 3 Terminal</td><td></td><td>3. Clear/0.312 ①</td><td>3. Orange</td><td></td><td></td></tr><tr><td>5. Style 5</td><td>1. Solder/Military/Short</td><td>4. N.O. 3 Terminal</td><td></td><td>4. Black/0.312 ①</td><td>4. Yellow</td><td></td><td></td></tr><tr><td>6. Style 6</td><td>2. Solder/Commercial/Short</td><td>5. 5 Terminal</td><td></td><td>5. Clear/Square .50 ②</td><td>5. Green</td><td></td><td></td></tr><tr><td>7. Style 7</td><td>3. Solder/Mil. Watertight/Short</td><td>6. 2 Circuit</td><td></td><td>6. Black/Square .50 ②</td><td>6. Blue</td><td></td><td></td></tr><tr><td>8. Style 8</td><td>4. PC Pin/Commercial</td><td></td><td></td><td>7. Purple</td><td>7. Purple</td><td></td><td></td></tr><tr><td>A. Style A</td><td>5. PC Pin/Military</td><td></td><td></td><td>8. Gray</td><td>8. Gray</td><td></td><td></td></tr><tr><td></td><td>6. PC Pin/Mil. Watertight</td><td></td><td></td><td>9. White</td><td>9. White</td><td></td><td></td></tr><tr><td></td><td>7. Solder/Com. Watertight/Short</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td>8. PC Pin/Com. Watertight</td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		P7	-	X	X	X	X	X	X	Case Style	Terminal Style/Construction Grade	Circuit Form	Contact Rating	Case Color/ Button Dia.	Button Color			1. Style 1	A. Solder/Commercial	1. N.O.	1. Std.	1. Clear/Std.	1. Red			2. Style 2	B. Solder/Watertight Commercial	2. N.C.	2. Low Level	2. Black/Std.	2. Black			3. Style 3		3. N.C. 3 Terminal		3. Clear/0.312 ①	3. Orange			5. Style 5	1. Solder/Military/Short	4. N.O. 3 Terminal		4. Black/0.312 ①	4. Yellow			6. Style 6	2. Solder/Commercial/Short	5. 5 Terminal		5. Clear/Square .50 ②	5. Green			7. Style 7	3. Solder/Mil. Watertight/Short	6. 2 Circuit		6. Black/Square .50 ②	6. Blue			8. Style 8	4. PC Pin/Commercial			7. Purple	7. Purple			A. Style A	5. PC Pin/Military			8. Gray	8. Gray				6. PC Pin/Mil. Watertight			9. White	9. White				7. Solder/Com. Watertight/Short								8. PC Pin/Com. Watertight						
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① Not available with Case Styles 2 & 5
② Available with Case Style A only

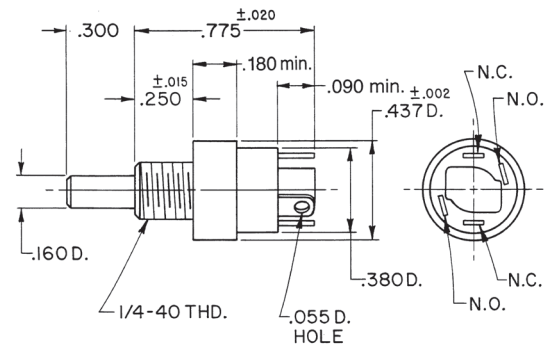
EXAMPLES OF CUSTOMIZED P7 SEALED PUSHBUTTONS

**Special Longer Length Button**

Panel seal gasket and watertight enclosure.
Button is black nylon. Bezel is black anodized aluminum alloy.

Actuation
Momentary

OTTO Part Number
P7-500001

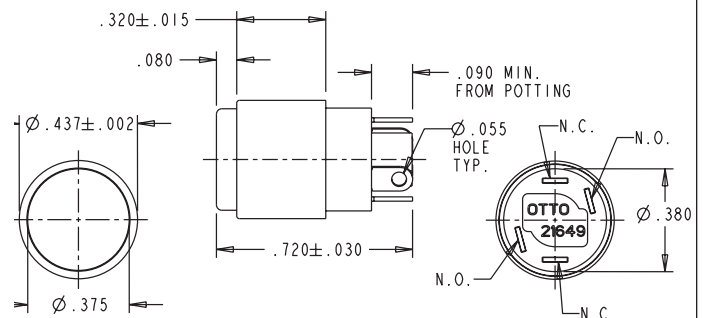
**Special Large Button, Press Fit**

Available with a 0.375" dia. button with three color options.

Color
Red
Black
White

OTTO Part Number
P7-900001
P7-900002
P7-900009

Contact factory for additional button color options.

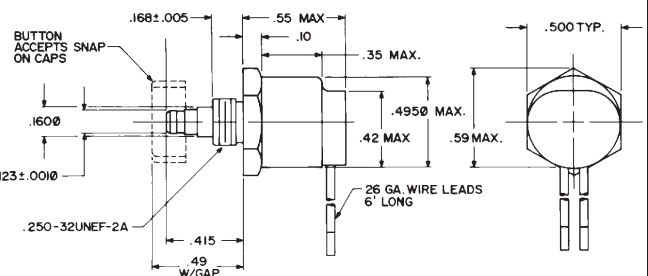
**Special Snap-On Button, Wire Leads**

Features changeable snap-on button caps available in two diameters and in a range of colors. Switch is splashproof sealed per MIL-PRF-8805 and is supplied with a silicone panel gasket.

Part Number: P7-500018

Button Color	0.440" Dia.	0.375" Dia.
Red	C400725-1	C400723-1
Black	C400725-2	C400723-2
Orange	C400725-3	C400723-3
White	C400725-9	C400723-9

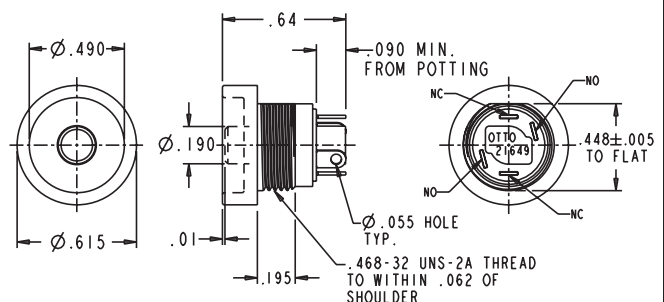
Contact factory for additional button color options.

**Mini Pushbutton, Shrouded**

This shrouded pushbutton is designed to reduce the chance of inadvertent actuation. Button size is .19". Enclosure design is watertight per IP68S.

Actuation
Momentary

OTTO Part Number
P7-900196



Mouser Electronics

Authorized Distributor

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OTTO:

[P7-133122](#) [P7-215222](#) [P7-335122](#) [P7-335222](#) [P7-616221](#) [P7-161122](#) [P7-1A1138](#) [P7-1A1141](#) [P7-1A1148](#) [P7-1A1241](#) [P7-226121](#) [P7-226128](#) [P7-281122](#) [P7-2A1118](#) [P7-336111](#) [P7-336149](#) [P7-361248](#) [P7-362222](#) [P7-371124](#) [P7-371126](#) [P7-371129](#) [P7-374142](#) [P7-376222](#) [P7-376248](#) [P7-386145](#) [P7-3A1226](#) [P7-3B6145](#) [P7-546121](#) [P7-546124](#) [P7-546126](#) [P7-5B2121](#) [P7-622146](#) [P7-686121](#) [P7-686142](#) [P7-6A1128](#) [P7-6A1142](#) [P7-6B1242](#) [P7-711126](#) [P7-836148](#) [P7-8B6121](#) [P7-8B6122](#) [P7-8B6125](#) [P7-8B6128](#) [P7-A16159](#) [P7-A36169](#) [P7-A76261](#) [P7-AA1126](#) [P7-AA1129](#) [P7-AA1145](#) [P7-AA1151](#) [P7-AA1154](#) [P7-AA1161](#) [P7-AA1164](#) [P7-AA2265](#) [P7-AB1121](#) [P7-AB2121](#) [P7-AB6161](#) [P7-A31121](#) [P7-133142](#) [P7-1A1242](#) [P7-1B6142](#) [P7-1B6242](#) [P7-221126](#) [P7-311127](#) [P7-334249](#) [P7-376244](#) [P7-3B5124](#) [P7-633142](#) [P7-6A6138](#) [P7-6B1141](#) [P7-776121](#) [P7-7B6221](#) [P7-811146](#) [P7-900426](#) [P7-A31168](#) [P7-A31169](#) [P7-A31262](#) [P7-100012](#) [P7-100022](#) [P7-100023](#) [P7-100028](#) [P7-100053](#) [P7-100054](#) [P7-200001](#) [P7-300031](#) [P7-300095](#) [P7-300096](#) [P7-300120](#) [P7-300121](#) [P7-300125](#) [P7-300154](#) [P7500031-2](#) [P7500041-2](#) [P7500050-1](#) [P7500050-9](#) [P7-500052](#) [P7-500063](#) [P7-500064](#) [P7-500065](#) [P7-500095](#)