MOMENTARY ACTION, SEALED SUB-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.

The long life snap-action design is protected from the environment by a silicon rubber boot, operating on a patented "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 case style has 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 contact resistance**
- **High contact pressure**
- **6 circuit variations**
- **Positive tactile feedback**
- **Variety of mounting styles**
- **Qualified to MIL-PRF-8805/110**
- **Moistureproof & dusttight to IP64 & MIL-PRF-8805 Design 2 or watertight to IP68S & MIL-PRF-8805 Design 3**
- **RoHS/WEEE/Reach compliant**

Standard Characteristics/Ratings:

ELECTRICAL RATINGS:	Sea Level @ 28VDC			50,000 feet @ 28VDC		
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:	IP64 and MIL-PRF-8805 Design 2 or 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

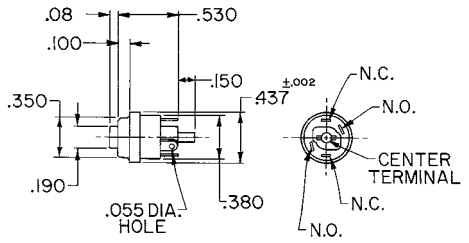
MINI-SIZED PER MIL-PRF-8805/110

SEALED AGAINST DUST & MOISTURE, LOW LEVEL SWITCHING OPTION

P7-1 Series

Case Style 1
Press Fit Mount

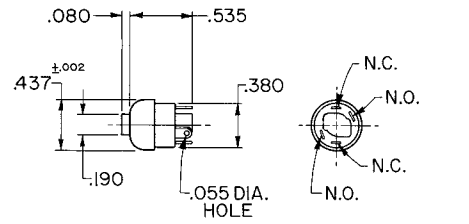
Also available with PC terminals.



P7-2 Series

Case Style 2
Press Fit Mount

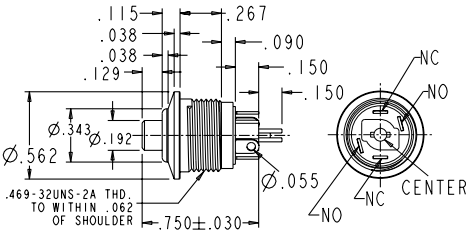
Also available with PC pins.



P7-3 Series

Case Style 3
Bezel/Threaded Bushing

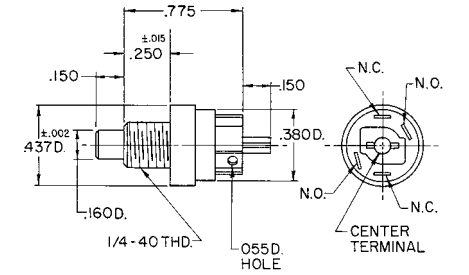
Also available with PC pins.



P7-5 Series

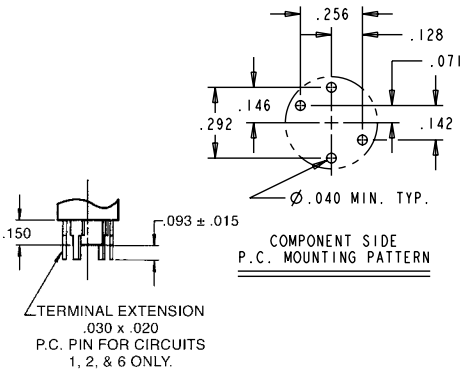
Case Style 5
1/4" Threaded Bushing

Also available with PC pins.



PC Pin Mounting Pattern

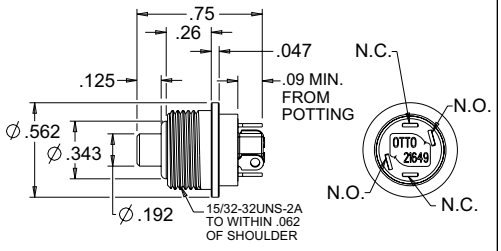
(As viewed from switch bottom. See above drawings for terminal identification.)



P7-6 Series

Case Style 6
15/32" Threaded Bushing

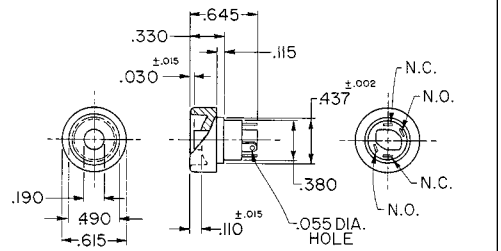
Also available with PC pins.



P7-7 Series

Case Style 7
Press Fit Mount

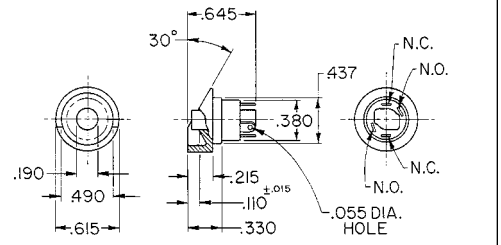
Also available with PC pins.



P7-8 Series

Case Style 8
Press Fit Mount
Guarded Button

Also available with PC pins.



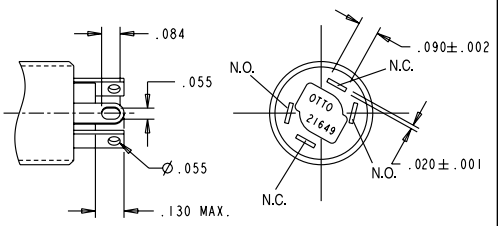
P7-5 Series

Case Style 5
1/4" Threaded Bushing

Also available with PC pins.

Terminal Style "A" & "B"

Standard



P7 PART NUMBER CODE

P7 – X X X X X X

Case Style	Terminal Style/ Construction Grade	Circuit Form	Contact Rating	Bezel 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	**1.** Solder/Military/Short	**3.** N.C. 3 Terminal		**3.** Clear/0.312 ①	**3.** Orange
5. Style 5	**2.** Solder/Commercial/Short	**4.** N.O. 3 Terminal		**4.** Black/0.312 ①	**4.** Yellow
6. Style 6	**3.** Solder/Mil. Watertight/Short	**5.** 5 Terminal			**5.** Green
7. Style 7	**4.** PC Pin/Commercial	**6.** 2 Circuit			**6.** Blue
8. Style 8	**5.** PC Pin/Military				**7.** Purple
	6. PC Pin/Mil. Watertight				**8.** Gray
	7. Solder/Com. Watertight/Short				**9.** White
	8. PC Pin/Com. Watertight				

① Not available with Case Styles 1, 2 & 5.

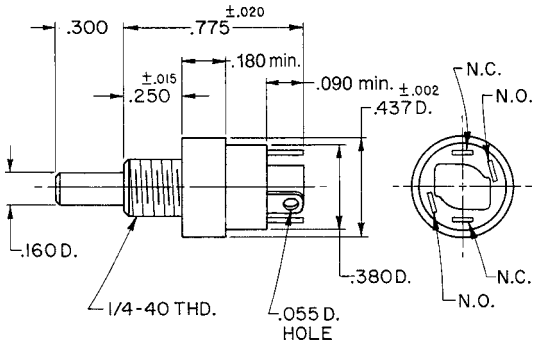
Specifications Subject To Change Without Notice

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	OTTO Part Number
Momentary	P7-500001

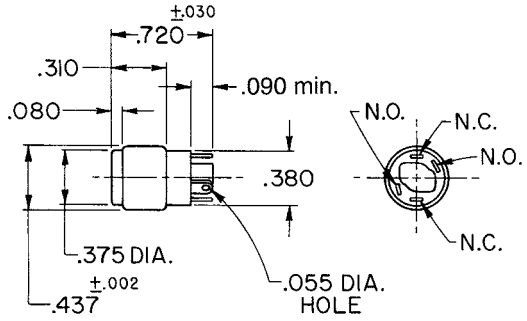


Special Large Button, Press Fit

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

Color	OTTO Part Number
Red	P7-900001
Black	P7-900002
White	P7-900009

Contact factory for additional button color options.



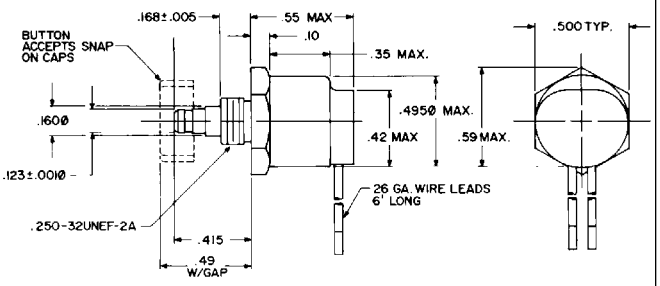
Special Snap-On Button, Wire Leads

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

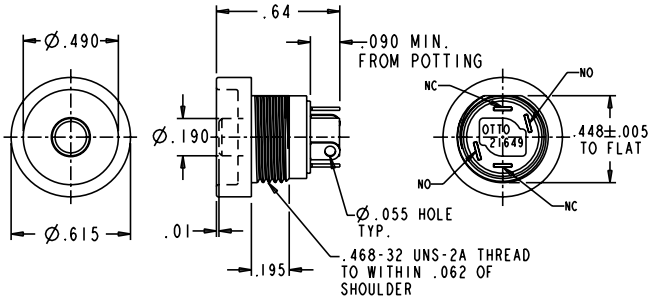
Contact factory for additional button color options.



Mini Pushbutton, Shrouded

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

Actuation	OTTO Part Number
Momentary	P7-900196



PUSHBUTTONS

Mouser Electronics

Authorized Distributor

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

OTTO:

P7-3B6121 P7-3B6122 P7-5B6121 P7-5B6122 P7-6B6121 P7-6B6122 P7-511122 P7-561128 P7-351122 P7-656122 P7-536122 P7-3B6142 P7-112221 P7-821112 P7-821126 P7-821129 P7-626122 P7-656221 P7-712122 P7-734122 P7-751122 P7-814129 P7-551222 P7-555111 P7-571225 P7-5B1121 P7-5B1122 P7-616242 P7-8A1129 P7-811222 P7-511125 P7-515126 P7-536111 P7-381244 P7-3A1128 P7-3A1242 P7-824126 P7-836229 P7-8A1121 P7-332124 P7-371229 P7-371244 P7-376121 P7-376225 P7-381241 P7-316121 P7-321141 P7-326146 P7-326244 P7-331149 P7-331249 P7-534111 P7-311125 P7-311126 P7-311141 P7-311148 P7-314221 P7-5A1121 P7-516126 P7-521129 P7-521211 P7-511111 P7-534121 P7-551221 P7-551229 P7-576121 P7-831128 P7-876221 P7-3B6123 P7-3B6225 P7-7A1142 P7-811122 P7-811226 P7-814121 P7-816119 P7-816228 P7-3B1124 P7-3B1149 P7-3B6242 P7-515128 P7-515221 P7-522119 P7-741123 P7-746122 P7-371243 P7-3A1142 P7-3A1144 P7-611229 P7-621221 P7-631146 P7-632122 P7-651122 P7-722122 P7-1B1224 P7-231221 P7-236222 P7-256221 P7-2B1222 P7-611226 P7-131122