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 |

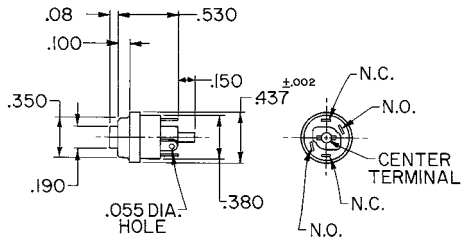
# MINI-SIZED PER MIL-PRF-8805/110

SEALED AGAINST DUST & MOISTURE, LOW LEVEL SWITCHING OPTION

## P7-1 Series

**Case Style 1**
**Press Fit Mount**

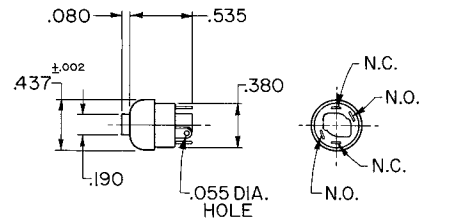
Also available with PC terminals.




## P7-2 Series

**Case Style 2**
**Press Fit Mount**

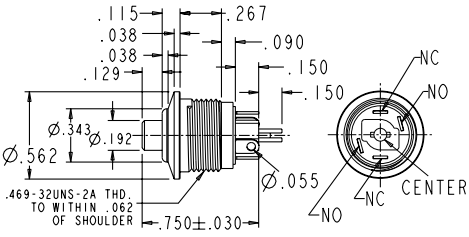
Also available with PC pins.




## P7-3 Series

**Case Style 3**
**Bezel/Threaded Bushing**

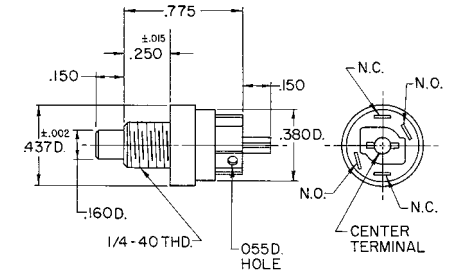
Also available with PC pins.




## P7-5 Series

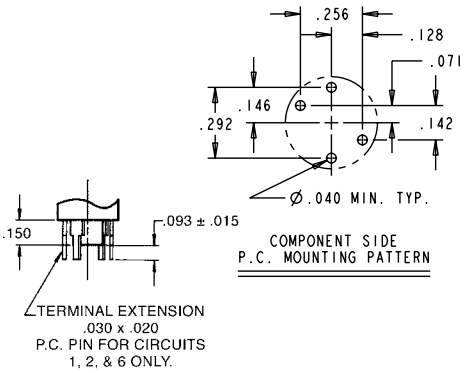
**Case Style 5**
**1/4" Threaded Bushing**

Also available with PC pins.




## PC Pin Mounting Pattern

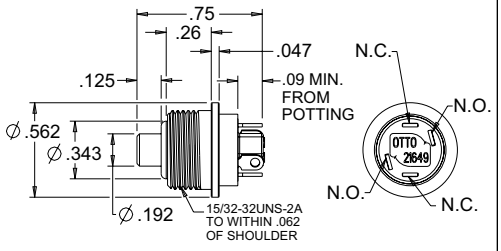
(As viewed from switch bottom. See above drawings for terminal identification.)




## P7-6 Series

**Case Style 6**
**15/32" Threaded Bushing**

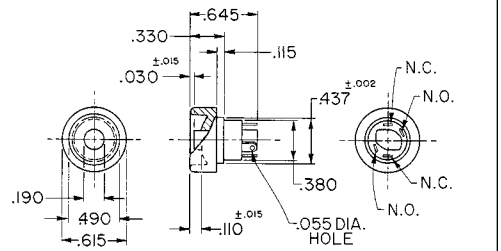
Also available with PC pins.




## P7-7 Series

**Case Style 7**
**Press Fit Mount**

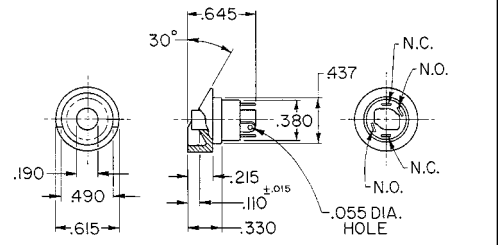
Also available with PC pins.




## P7-8 Series

**Case Style 8**
**Press Fit Mount**
**Guarded Button**

Also available with PC pins.




## P7-5 Series

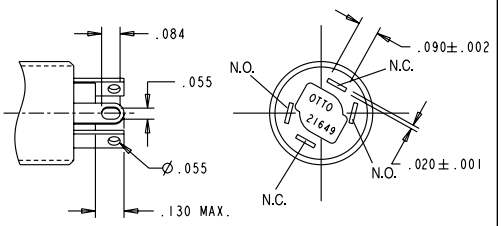
**Case Style 5**
**1/4" Threaded Bushing**

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.



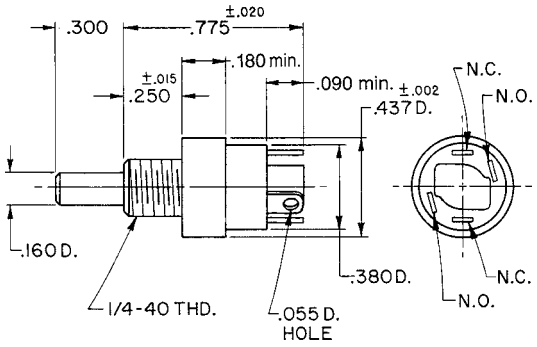
Specifications Subject To Change Without Notice

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 |

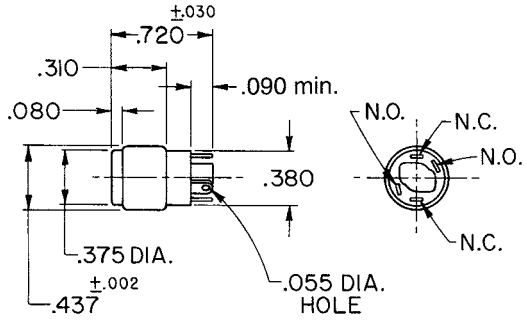



## Special Large Button, Press Fit

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.



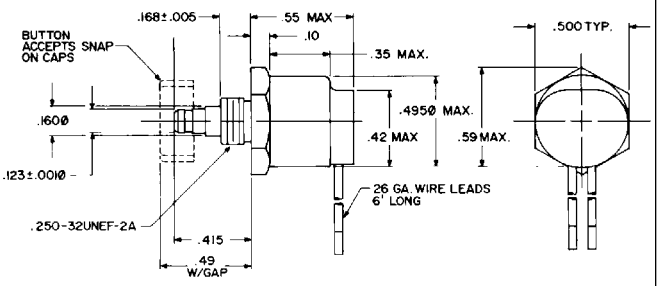

## Special Snap-On Button, Wire Leads

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 |

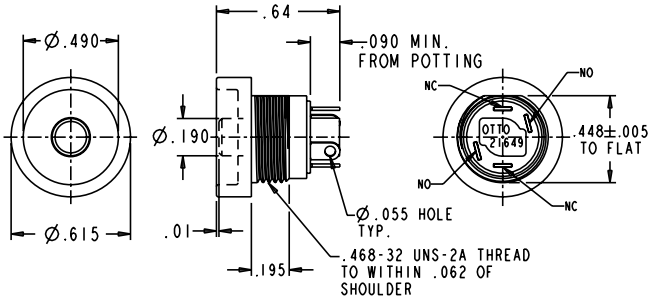
Contact factory for additional button color options.




## 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

LifeElectronics
Живое партнерство

**ООО «ЛайфЭлектроникс»** **“LifeElectronics” LLC**

*ИНН 7805602321 КПП 780501001 Р/С 40702810122510004610 ФАКБ "АБСОЛЮТ БАНК" (ЗАО) в г.Санкт-Петербурге К/С 30101810900000000703 БИК 044030703*

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