

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 | | | | | |

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>PC Pin Mounting Pattern</p> <p>(As viewed from switch bottom. See above drawings for terminal identification.)</p> | <p align="center">P7 PART NUMBER CODE</p> <p align="center">P7 - X X X X X X</p> <table border="0"> <thead> <tr> <th>Case Style</th> <th>Terminal Style/Construction Grade</th> <th>Circuit Form</th> <th>Contact Rating</th> <th>Bezel Color/Button Dia.</th> <th>Button Color</th> </tr> </thead> <tbody> <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> </tr> <tr> <td>2. Style 2</td> <td>B. Solder/Watertight</td> <td>2. N.C.</td> <td>2. Low Level</td> <td>2. Black/Std.</td> <td>2. Black</td> </tr> <tr> <td>3. Style 3</td> <td>Commercial</td> <td>3. N.C. 3 Terminal</td> <td></td> <td>3. Clear/0.312 ①</td> <td>3. Orange</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> </tr> <tr> <td>6. Style 6</td> <td>2. Solder/Commercial/Short</td> <td>5. 5 Terminal</td> <td></td> <td></td> <td>5. Green</td> </tr> <tr> <td>7. Style 7</td> <td>3. Solder/Mil. Watertight/Short</td> <td>6. 2 Circuit</td> <td></td> <td></td> <td>6. Blue</td> </tr> <tr> <td>8. Style 8</td> <td>4. PC Pin/Commercial</td> <td></td> <td></td> <td></td> <td>7. Purple</td> </tr> <tr> <td></td> <td>5. PC Pin/Military</td> <td></td> <td></td> <td></td> <td>8. Gray</td> </tr> <tr> <td></td> <td>6. PC Pin/Mil. Watertight</td> <td></td> <td></td> <td></td> <td>9. White</td> </tr> <tr> <td></td> <td>7. Solder/Com. Watertight/Short</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> </tr> </tbody> </table> <p>① Not available with Case Styles 1, 2 & 5.</p> | | | 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 | 2. N.C. | 2. Low Level | 2. Black/Std. | 2. Black | 3. Style 3 | Commercial | 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. Green | 7. Style 7 | 3. Solder/Mil. Watertight/Short | 6. 2 Circuit | | | 6. Blue | 8. Style 8 | 4. PC Pin/Commercial | | | | 7. Purple | | 5. PC Pin/Military | | | | 8. Gray | | 6. PC Pin/Mil. Watertight | | | | 9. White | | 7. Solder/Com. Watertight/Short | | | | | | 8. PC Pin/Com. Watertight | | | | |
| 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 | 2. N.C. | 2. Low Level | 2. Black/Std. | 2. Black | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. Style 3 | Commercial | 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. Green | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. Style 7 | 3. Solder/Mil. Watertight/Short | 6. 2 Circuit | | | 6. Blue | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8. Style 8 | 4. PC Pin/Commercial | | | | 7. Purple | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5. PC Pin/Military | | | | 8. Gray | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6. PC Pin/Mil. Watertight | | | | 9. White | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7. Solder/Com. Watertight/Short | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8. PC Pin/Com. Watertight | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

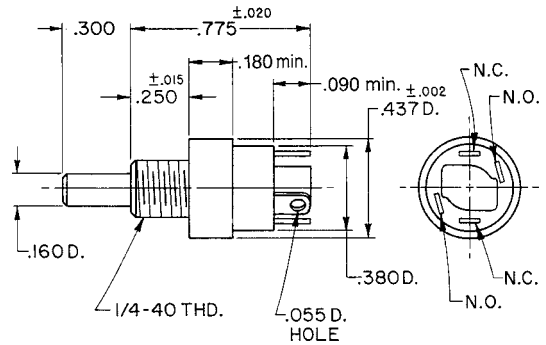
EXAMPLES OF CUSTOMIZED P7 SEALED PUSHBUTTONS



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

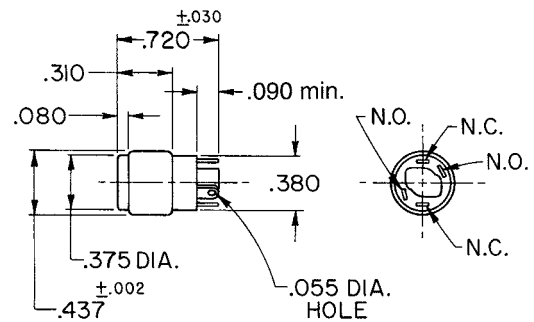


Special Large Button, Press Fit

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

Color
Red P7-900001
Black P7-900002
White P7-900009

Contact factory for additional button color options.



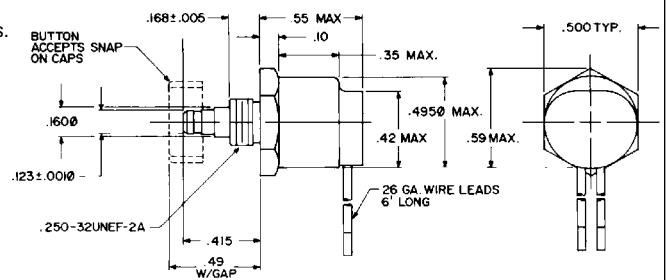
Special Snap-On Button, Wire Leads

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 |

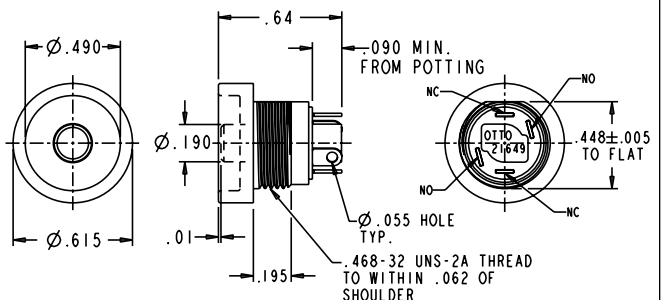
Contact factory for additional button color options.



Mini Pushbutton, Shrouded

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

Actuation Momentary
OTTO Part Number P7-900196



Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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