

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 allow the switch density today's technologies require in control grips and panels.

The long life snap-action design is protected from the environment by a silicon 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-S-8805 including low level switching (10 mA @ 30 mV) with power switching up to 5 amps at 28 VDC 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 series 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 had 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. Watertight to IP68. Watertight to MIL-PRF-8805 Design 3. Consult the ordering code to specify.

Quality Features:

- Low level switching capability
- Low contact resistance: .025 ohms max
- High contact pressure
- Six circuit variations
- Positive tactile feedback
- Variety of mounting styles
- Sealed against dust and moisture
- Qualified to MIL-PRF-8805/110
- Watertight IP68 available



Standard Characteristics/Ratings:

ELECTRICAL: (at 28 VDC or 115 VAC, 60/400 Hz.)

LOAD	SINGLE CIRCUIT	2-CIRCUIT
Resistive	5 Amps	4 Amps
Inductive	3 Amps	2 Amps
Lamp	2 Amps	—

Low Level Option: 30 mV @ 10 ma. for 25,000 cycles

MATERIALS:

Case:	Aluminum alloy, anodized
Button:	Thermoplastic
Seal:	Internal silicone rubber
Terminals:	The terminals are suitable for soldering

OPERATIONAL:

Operating Force:	1.7 lbs. ±.5 lbs. Also available 12oz. ±4oz.. on special order
Mechanical Life:	1,000,000 cycles
Electrical Life:	25,000 cycles
Dielectric Withstanding:	1050 Vrms.
Temperature Range:	-55°C to +85°C

SEALED AGAINST DUST AND MOISTURE, LOW LEVEL SWITCHING OPTION

P7-1 Series Case Style 1 Press-fit Mount Also available with P.C. terminals.		P7-6 Series Case Style 6 15/32" Threaded Bushing Also available with P.C. pins.																																																																									
P7-2 Series Case Style 2 Press-fit Mount Also available with P.C. pins.		P7-7 Series Case Style 7 Press-fit Mount Also available with P.C. pins.																																																																									
P7-3 Series Case Style 3 Bezel/Threaded Bushing Also available with P.C. pins.		P7-8 Series Case Style 8 Press-fit Mount Guarded Button Also available with P.C. pins.																																																																									
P7-5 Series Case Style 5 1/4" Threaded Bushing Also available with P.C. pins.		Terminal Style "A" & "B" Standard																																																																									
P.C. Pin Mounting Pattern (As viewed from switch bottom. See above drawings for terminal identification.)	P.C. MOUNTING PATTERN (BOARD VIEW)																																																																										
P7 PART NUMBER CODE <table><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><tr><td>1. Style 1</td><td>0. Special①</td><td>1. N.O.</td><td>1. Standard</td><td>1. Clear-Standard</td><td>1. Red</td></tr><tr><td>2. Style 2</td><td>A. Standard Commercial Solder</td><td>2. N.C.</td><td>2. Low Level</td><td>2. Black-Standard</td><td>2. Black</td></tr><tr><td>3. Style 3</td><td>B. Standard Watertight Commercial Solder</td><td>3. N.C. 3-Terminal</td><td></td><td>3. Clear-.312②</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-.312②</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. Two Circuit</td><td></td><td></td><td>6. Blue</td></tr><tr><td>8. Style 8</td><td>4. P.C. Pin/Commercial</td><td></td><td></td><td></td><td>7. Purple</td></tr><tr><td></td><td>5. P.C. Pin/Military</td><td></td><td></td><td></td><td>8. Gray</td></tr><tr><td></td><td>6. P.C. 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. P.C. Pin/Com. Watertight</td><td></td><td></td><td></td><td></td></tr></table>				Case Style	Terminal Style/Construction Grade	Circuit Form	Contact Rating	Bezel Color Button Dia.	Button Color	1. Style 1	0. Special①	1. N.O.	1. Standard	1. Clear-Standard	1. Red	2. Style 2	A. Standard Commercial Solder	2. N.C.	2. Low Level	2. Black-Standard	2. Black	3. Style 3	B. Standard Watertight Commercial Solder	3. N.C. 3-Terminal		3. Clear-.312②	3. Orange	5. Style 5	1. Solder/Military/Short	4. N.O. 3-Terminal		4. Black-.312②	4. Yellow	6. Style 6	2. Solder/Commercial/Short	5. 5-Terminal			5. Green	7. Style 7	3. Solder/Mil. Watertight/Short	6. Two Circuit			6. Blue	8. Style 8	4. P.C. Pin/Commercial				7. Purple		5. P.C. Pin/Military				8. Gray		6. P.C. Pin/MIL Watertight				9. White		7. Solder/Com. Watertight/Short						8. P.C. Pin/Com. Watertight				
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① Specials are serialized. Subsequent numerals do not specify standard features.

② Not available with Case Style 1, 2 and 5.

EXAMPLES OF CUSTOMIZED P7 SEALED PUSHBUTTONS

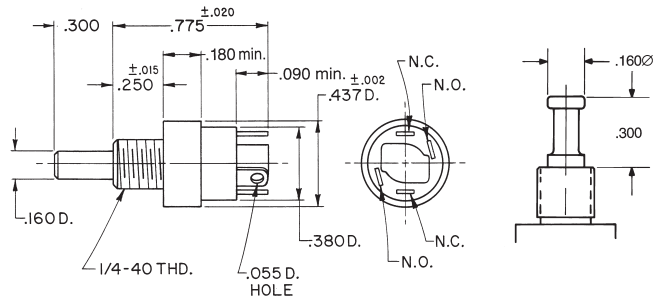


Special Longer Length Button

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

Available in two versions:

Actuation	OTTO Part Number
Momentary	P7-500001
Push-Pull Maintained	P7-500017



**P7-500001,
Momentary**

**P7-500017,
Push-Pull**

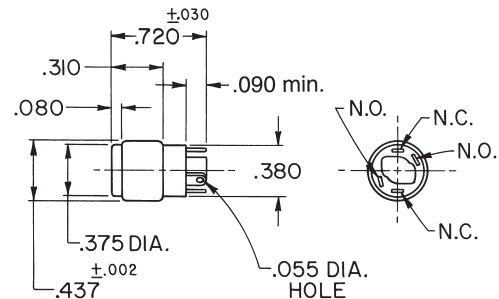


Special Large Button, Press Fit

Available with a .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 splash-proof sealed per MIL-S-8805 and is supplied with a silicone panel gasket.

Part Number: P7-500018

Button Color	.440" Dia.	.375" Dia.
Red	400725-1	400723-1
Black	400725-2	400723-2
Orange	400725-3	400723-3
White	400725-9	400723-9

Contact factory for additional button color options

