

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 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/WEEE/Reach 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					

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.		P7-6 Series Case Style 6 15/32" Threaded Bushing Also available with PC pins.																																																																																												
P7-2 Series Case Style 2 Press Fit Mount Also available with PC pins.		P7-7 Series Case Style 7 Press Fit Mount Also available with PC pins.																																																																																												
P7-3 Series Case Style 3 Bezel/Threaded Bushing 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-A Series Case Style A 15/32" Threaded Bushing Square Button Shown Also available with PC pins and round buttons.		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. P7 PART NUMBER CODE <table><tr><th>P7</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>Bezel Color/Button Dia.</th><th>Button Color</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></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><td></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><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></tr><tr><td>6. Style 6</td><td>2. Solder/Commercial/Short</td><td>5. 5 Terminal</td><td></td><td>5. Clear/</td><td>5. Green</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>Square .50 ②</td><td>6. Blue</td><td></td></tr><tr><td>8. Style 8</td><td>4. PC Pin/Commercial</td><td></td><td></td><td>6. Black/</td><td>7. Purple</td><td></td></tr><tr><td>A. Style A</td><td>5. PC Pin/Military</td><td></td><td></td><td>Square .50 ②</td><td>8. Gray</td><td></td></tr><tr><td></td><td>6. PC Pin/Mil. Watertight</td><td></td><td></td><td></td><td>9. White</td><td></td></tr><tr><td></td><td>7. Solder/Com. Watertight/Short</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></tr></table>		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	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. Clear/	5. Green		7. Style 7	3. Solder/Mil. Watertight/Short	6. 2 Circuit		Square .50 ②	6. Blue		8. Style 8	4. PC Pin/Commercial			6. Black/	7. Purple		A. Style A	5. PC Pin/Military			Square .50 ②	8. Gray			6. PC Pin/Mil. Watertight				9. White			7. Solder/Com. Watertight/Short							8. PC Pin/Com. Watertight					
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	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. Clear/	5. Green																																																																																									
7. Style 7	3. Solder/Mil. Watertight/Short	6. 2 Circuit		Square .50 ②	6. Blue																																																																																									
8. Style 8	4. PC Pin/Commercial			6. Black/	7. Purple																																																																																									
A. Style A	5. PC Pin/Military			Square .50 ②	8. Gray																																																																																									
	6. PC Pin/Mil. Watertight				9. White																																																																																									
	7. Solder/Com. Watertight/Short																																																																																													
	8. PC Pin/Com. Watertight																																																																																													