

SHORTER BEHIND PANEL, SUBMINIATURE DOUBLE-BREAK, SNAP-ACTION

Makes and breaks every time!
OTTO's inherent rocking-action
breaks welds and wipes contacts clean.

OTTO P8 series pushbutton switches feature a shortened back-of-panel depth while offering all the features of the regular size P1 and P3 series switches. P8 series switches offer vastly improved electrical and mechanical life under extreme conditions found in most military and industrial environments.

On sealed models, a silicone boot operating on our patented "rolling sleeve" principle protects the contact area against contamination at the button area. This boot provides long life and smooth operation over a wide temperature range. Sealed terminals protect the contact area from hostile environments and solder flux on both sealed and unsealed models.

High contact pressure (120 grams), low contact resistance (25 milliohms) and short contact bounce (5 milliseconds max.) are the result of our patented snap-action mechanism. These characteristics guarantee exceptional current carrying capabilities over the life of the switch. With the optional Low Level (Gold plated) configuration the P8 is well suited to interface directly to computers and other solid state devices.

The OTTO P8 series is a quality precision snap-action switch designed for use in panel boards, control sticks, computers, instruments, pressure switches and other hand or machine operated applications where rugged pushbutton switches are required. In addition, its precision permits the OTTO P8 to also be used as a limit switch. The P8 offers unique size, high electrical ratings and a wide choice of mounting styles.

Quality Features:

- Shorter behind panel depth than OTTO's P1/P3
- Patented "rolling sleeve" button seal
- Contact area sealed at button and terminals
- Positive tactile feedback
- Less than 25 milliohms contact resistance
- Ideal for low level as well as 20 amp. switching
- Trip point repeatable to within .001"
- Variety of mounting styles
- Variety of button lengths & shapes
- Engraved buttons and bezels available
- Mechanical life is over 1 million cycles
- UL recognized



Standard Characteristics/Ratings:

Electrical Circuit: Because the OTTO P8 is a double-break, two-circuit switch, it can operate as a single or two circuit device. Thus, a wide variety of connection possibilities are available. See "Circuit Form" in part number code for options. Special variations can be provided.

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

LOAD	AMPERES	LIFE (Min.)
Resistive	10	100,000 cycles
Resistive	20	25,000 cycles
Inductive	5	100,000 cycles
Lamp	3	100,000 cycles

OPERATIONAL:

Mechanical Life: 1,000,000 cycles minimum

Temperature Range: -55°C to +85°C

Seal Options: Unsealed, Moistureproof and Dusttight (IP64 & MIL-PRF-8805 Design 2), Watertight (IP68)

Operating Force: 2.5, +0.5, -1 lb.

Release Force: 1 lb. minimum

MATERIALS:

Case: Aluminum, anodized black or clear

Button: Thermoplastic

Boot: Internal, silicone rubber

Terminals: Brass, silver plated

Contacts: Fine silver

MOUNTING:

Models with threaded bushing mount supplied with hex nut and internal tooth lockwasher. Panel seal gasket supplied for splash-proof. Model P8-1 style press fits into a .623" diameter hole.

TERMINALS:

Terminal options include solder, faston or screw connection with optional 2-56 x 1/8" screws, split lockwashers and solder lugs.

US Patent No. 3,612,793. Canadian Pat. No. 917,719.

PUSHBUTTON SWITCHES

LOW LEVEL TO 10 AMPS, COMMERCIAL GRADE CONFORMS TO MIL-S-8805/20

PUSHBUTTONS

<p>P8-1, Style A Bezel Press Fit Bushing Flat Button Shape Shown Specify Dia.: .312" or .375" Height: .187" or .250"</p> <table border="1"> <thead> <tr> <th>Terminal Styles</th> <th>"A" (In.)</th> </tr> </thead> <tbody> <tr> <td>1, 2, 4 & 5</td> <td>.808</td> </tr> <tr> <td>3 & 6</td> <td>.922</td> </tr> </tbody> </table>	Terminal Styles	"A" (In.)	1, 2, 4 & 5	.808	3 & 6	.922	<p>P8-3, Style C Bezel .625-24 Bushing Flat Button Shape Shown Specify Dia.: .312" or .375" Height: .187" or .250"</p> <table border="1"> <thead> <tr> <th>Terminal Styles</th> <th>"A" (In.)</th> </tr> </thead> <tbody> <tr> <td>1, 2, 4 & 5</td> <td>.683</td> </tr> <tr> <td>3 & 6</td> <td>.797</td> </tr> </tbody> </table>	Terminal Styles	"A" (In.)	1, 2, 4 & 5	.683	3 & 6	.797	<p>Small Bushing P8-4: .500-32 Bushing P8-5: .469-32 Bushing Flat Button Shape Shown Specify Dia.: .312" or .375" Height: .187" or .250"</p> <p>THREADED BUSHING</p> <table border="1"> <thead> <tr> <th>Model</th> <th>Terminal Styles</th> <th>"A" (In.)</th> </tr> </thead> <tbody> <tr> <td>P8-4</td> <td>1, 2, 4 & 5</td> <td>.870</td> </tr> <tr> <td></td> <td>3 & 6</td> <td>.984</td> </tr> <tr> <td>P8-5</td> <td>1, 2, 4 & 5</td> <td>1.097</td> </tr> <tr> <td></td> <td>3 & 6</td> <td>1.211</td> </tr> </tbody> </table>	Model	Terminal Styles	"A" (In.)	P8-4	1, 2, 4 & 5	.870		3 & 6	.984	P8-5	1, 2, 4 & 5	1.097		3 & 6	1.211	<p>P8-6, Style F Bezel .625-24 Bushing Flat Button Shape Shown Specify Dia.: .312" or .375" Height: .187" or .250"</p> <table border="1"> <thead> <tr> <th>Terminal Styles</th> <th>"A" (In.)</th> </tr> </thead> <tbody> <tr> <td>1, 2, 4 & 5</td> <td>.808</td> </tr> <tr> <td>3 & 6</td> <td>.922</td> </tr> </tbody> </table>	Terminal Styles	"A" (In.)	1, 2, 4 & 5	.808	3 & 6	.922
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Ordering Information:

Select the OTTO P8 series switch to match your application requirements. Combinations of features are almost limitless. When ordering, please use the OTTO part number.

Example of building an OTTO part number:

P8-316329B specifies a "C" style bezel, silver color case, solder terminals, two-circuit contact configuration, standard contact rating, watertight seal construction, 4 lbs. operating force momentary action, white button .375" diameter by .250" long, dome shaped. For low level switching option, specify P8-316529B.

P8 PART NUMBER CODE

P 8 - X X X X X X X

Bezel Style	Terminal Style/Case Color	Circuit Form	Current Rating Level/Seal Type	Operating Force/Action	Button Color	Button Diameter/Length/Shape ③
1. Style A	0. Special ①	1. N.O.	1. Standard/Unsealed④	1. 2.5 Lbs./Momentary	1. Red	A. .375"/.250"/Flat
3. Style C	1. Solder/Silver	2. N.C.	2. Standard/Moistureproof	2. 4 Lbs./Momentary	2. Black	B. .375"/.250"/Dome
4. .50-32THD	2. Screw/Silver	6. Two Circuit	3. Standard/Watertight	3. Push-Pull ③	3. Orange	C. .375"/.187"/Flat
5. .469-32THD	3. Faston/Silver ②		4. Low level/Moistureproof ④		4. Yellow	D. .375"/.187"/Dome
6. Style F	4. Solder/Black		5. Low Level/Watertight ④		5. Green	E. .312"/.250"/Flat
7. Style G	5. Screw/Black		6. Standard/Dusttight		6. Blue	F. .312"/.250"/Dome
8. Style H	6. Faston/Black ②				7. Purple	G. .312"/.187"/Flat
					8. Gray	H. .312"/.187"/Dome
					9. White	P. .375"/.250"/Flat ③

- ① Specials are serialized. Subsequent numerals do not specify standard features.
- ② Faston Receptacles: .187" on N.O.; .110" on N.C. terminals.
- ③ Push-Pull action available in button style "P" only.
- ④ Unsealed units are not recommended for low level current duty.