

Ordering Information

Select the OTTO P3 series switch to match your application requirements. Combinations of features are almost unlimited. Example of building an OTTO part number: P3-31111 is style 3 case, solder terminals, standard contact rating, SPST-N.O. contact configuration, 2.5 lb. operating force, red button. For low level

① Specials are serialized. Subsequent numbers do not specify standard features.

U.S. Patent No. 3,754,762 and other U.S. and Foreign patents pending.

OTTO PART NUMBER CODE

5. 5-Terminal

6. Two Circuit

Use these codes to specify the characteristics required for your application P3- X X X X X

| Case Style | Terminal Style/Rating | Circuit Form | Operating Force/Action |
|--|---|---|-----------------------------------|
| 3. Style 3 | 0 . Special⊕ | 1 . N.O. | 1. 2.5 lb/Momentary |
| 6 . Style 6 7 . Style 7 | Solder/Standard Screw/Standard | 2 . N.C. 3 . N.C. 3-Term | 2. 4 lb/Momentary 3. Push-Pull |
| 8. Stýle 8 | 3. Solder/Low Level | 4. N.O. 3-Term | |

Symbol Etched Buttons Waterproof Sealed

switching capability, specify P3-33111.

Buttons are molded of vellow Valox with black graphics sublimated for permanency. Buttons snap on to a special "A" style body. Water-tight sealed.

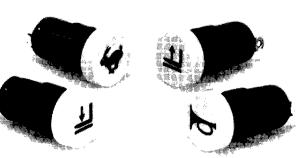
Operating Force: 2.5 +.5, -1 lbs. Reset Force: .75 lbs. min. Mechanical Life: 1,000,000 cycles Electrical Life: 25,000 cycles Rating: 10 Amperes, Resistive.

Circuit: SPNO-DB. Other circuits available.

P3-90093 series



9. Special 4. Screw/Low Level



Button

Color

1. Red

2. Black

3. Orange 4. Yellow

5. Green

6. Blue 7. Purple

8. Grav 9. White

FEATURES:

- Button sealed with patented "rolling sleeve" principle.
- Contact area dust-tight sealed at button and terminals.
- Less than 25 milliohms contact resistance.
- Ideal for low level switching as well as 20 amp. duty.
- Positive tactile feedback.
- Variety of mounting styles.
- Engraved buttons and bezels available.
- UL Recognized.
- 1 Million mechanical cycle life!

Makes and breaks every time! Less than 25 milliohms contact resistance because the OTTO design features inherent rocking-action that breaks welds and wipes contacts clean.

The OTTO P3 is the commercial construction version of the P1 series pushbutton switch, offering vastly improved life under extreme conditions found in some industrial environments. Moisture-proofing is accomplished in two ways. The pushbutton is sealed by a silicone boot operating on our patented "rolling sleeve", providing longer life and smoother operation over a wide temperature range. Epoxy seals protect the contacts and terminals from hostile environments and solder flux.

Waterproof sealing, submersible to 3 feet water pressure, is available as a P3 series switch on special order. However, waterproof sealing is available as a standard option within the similar front panel appearance design P8 series.

Higher than normal (120 grams) contact pressure, amazingly low (25 milliohms max. standard) contact resistance and extremely low contact bounce are all the result of the OTTO patented snap-action mechanism. Extra long electrical life and precise trip point offer added value and precision operation.

APPLICATIONS: The OTTO P3 series is a quality precision snap-action switch designed for use in panel boards, computers, business machines, instruments, pressure switches and other hand or machine operated applications where sealed pushbutton switches are required. Its precision permits the OTTO P3 to be used as a limit switch with unique size, high electrical ratings and a wide choice of mounting styles.



SPECIFICATIONS:

ELECTRICAL CIRCUIT: Because the OTTO P3 is a double-break switch, wide connection possibilities, in addition to longer life and greater capacity, are offered. The OTTO design provides a unique terminal connection to the moving element for added flexibility. Special versions can be provided with five terminals to control up to 4 circuits. See "Circuit" in part code for options.

ELECTRICAL RATINGS:

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

| AMPERES | LIFE (Nominal) |
|----------------|--------------------|
| 10 | 100,000 cycles |
| 20 | 25,000 cycles |
| 5 | 100,000 cycles |
| 3 | 100,000 cycles |
| 3 max. | 100,000 cycles |
| | 10 20 5 3 |

MECHANICAL:

Mechanical Life: 1,000,000 cycles. Seal: Moisture Proof and dust-tight.

Shock: High shock MIL-STD-202, method 207. Operating Force: 4 +1 lbs. or 2.5 +0.5, -1.0 lbs.

Release Force: .75 lb. minimum. (1 lb. for 4 lb. Operating Force model)

Materials:

Case: Aluminum alloy, anodized clear. Button: Nylon, choice of colors. Boot: Internal, silicone rubber. Nut: Brass, black oxidized or nickel plated.

Mounting: Bushing mounting via a supplied 5/8-24 hex nut and

an internal tooth lockwasher.

Terminals: The terminals are suitable for soldering or screw connection with optional 2-56 x 1/8" screws, split lockwashers, and solder lugs.

Special Shaped Bezel.

Total Travel: .085 ± .015 Operating Force: 2.5 + .5, -1 lbs. Reset Force: .75 lbs. min.

Circuit: SPNO-DB.

Other circuits available. Mechanical Life: 1,000,000 cycles. Button Color: Red Nylon

Housing: Clear anodized aluminum.

P3-30017



Short Bushing Mount Button

When fully depressed, the short button is flush with top of bushing. Ideal for "dead man" limit switch applications.

Terminals accept .110 " & .187 " quick fastons.

Moisture Proof sealed. Rating: 10 Amperes, Resistive. Operating Force: 2.5 ±0.5 lbs.

Button: Black nylon

Case: Clear anodized aluminum.

P3-60023



Special Large Round Button,

QC Tab Terminals.

Total Travel: $.085 \pm .015$ Operating Force: 4 ± 1 lbs. Reset Force: 1 lb. min.

Circuit: SPNO-DB. Other circuits available.

Mechanical Life: 1,000,000 cycles. Button Color: Black Nylon.

Housing: Clear anodized aluminum.

P3-30031



Total Travel: $.085 \pm .015$ Operating Force: 4 ± 1 lbs. Reset Force: 1 lbs. min. Circuit: SPNO-DB 3-terminal. Mechanical Life: 1,000,000 cycles. Button Color: Black Nylon

Housing: Clear anodized aluminum. Seal: Moisture Proof & dust-tight.

P3-60018



Special Right Angle QC Tabs, P3-6 style.

Total Travel: .085 ± .015

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

Reset Force: .75 lbs. min.

Circuit: SPNO-DB.

Mechanical Life: 1,000,000 cycles.

Physical:

Button Color: Red nylon.

Housing: Clear anodized aluminum.

P3-60024



Special "H" case with Round Shaped Button.

Operating Force: 4 ± 1 lbs. Rest Force: 1 lbs. min. Circuit:SPNC-DB.

Other circuits available. Mechanical Life: 1,000,000 cycles.

Button Color: Red Nylon

Housing: Black anodized aluminum.

P3-80016



Special Round Button & Wired Connector.

Total Travel: .085 ± .015 Operating Force: 2.5, +0.5, -1 lbs.

Reset Force: .75 lbs. min.

Circuit: SPNC-DB

Other circuits available.
Mechanical Life: 1,000,000 cycles.
Button Color: Red nylon.

Housing: Black anodized aluminum.

P3-90048



Large Diameter Button

Gray Nylon button is 1.187 inches. Snaps on to special style body with leads. Dust-tight sealed. Operating Force: 2.5 +.5, -1 lbs. Mechanical Life: 1,000,000 cycles Rating: 10 Amperes, Resistive.

Circuit: SPDT-Two circuit.

P3-30123-8



Special Snap-in Panel-sealed, Rectangular Shaped Button.

Total Travel: .125", max. Operating Force: 4 ± 1 lbs.

Rest Force: 1 lb. min.
Circuit: SPNO-DB. Other circuits available.
Mechanical Life: 1,000,000 cycles.

Button Color: Black Polyester Housing: Clear anodized aluminum.

P3-90037

Protective Shroud

This pushbutton is designed to avoid accidental actuation of the switch. The shroud requires the operator to purposely operate the switch. The actuation occurs below the height of the protective shroud, thus protecting against unintentional actuation.

SPDT-DB. Same ratings and sealing characteristics as the standard P3 series.

P3-90011



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