SEALED COMMERCIAL GRADE PUSHBUTTONS

MOMENTARY ACTION, SEALED, SNAP-ACTION, DOUBLE BREAK

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

The P3 is the commercial version of the P1 Pushbutton switch, offering vastly improved life under extreme conditions found in some industrial environments. 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 protects the contacts and terminals from hostile environments and solder flux.

High contact force (120g/4.2 oz), low contact resistance ($25m\Omega$ max) and short contact bounce are the result of our snapaction mechanism. These characteristics provide exceptional current carrying capabilities over the life of the switch. With the optional low level (gold plate) configuration, the P3 is well suited to interface directly to computers and other solid state devices.

Watertight sealing is available by simply adding "W" to your part number. Because the P3 is a double break switch, wide connection possibilities, longer life and greater capacity are offered. The P3 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 four circuits.

Features:

- Button sealed with patented "rolling sleeve" principle
- Contact area sealed at button & terminals
- Less than 25mΩ contact resistance
- Positive tactile feedback
- Engraved buttons & bezels available
- UL recognized & CSA certified
- 1 million mechanical cycle life
- Watertight to IP68S available in all versions
- Watertight to IP69K available in non push-pull versions
- RoHS/WEEE/Reach compliant

P3 PART NUMBER CODE **P3** Case Style Terminal Circuit Button Operating Style/Rating **Form** Force/Action 1. Solder/Std. 1. N.O. 1. 2.5 lbs./Momentary 1. Style 1 1. Red 3. Style 3 2. Screw/Std 2. N.C. 2. 4.0 lbs./Momentary 2. Black **6.** Style 6 3. Solder/Low Level 3. N.C. 3 Terminal 3. Push-Pull 3. Orange 4. N O 3 Terminal 4. Push-Pull Style 7 4. Screw/Low Level 4. Yellow High Force** 8. Style 8 5. 5 Terminal 5. Green 6. 2 Circuit 6. Blue

7. Purple 8. Gray

9. White



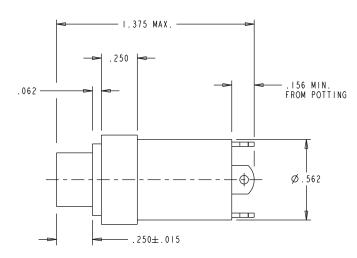
Standard Characteristics/Ratings:				
ELECTRICAL RATINGS:				
Load		Level @ 28VDC 115VAC, 60/400Hz	50,000 feet @ 28VDC or 115VAC, 60/400Hz	Cycles
Resistive	10A	ı	N/A	100,000
Inductive	5A		5A	100,000
Lamp	3A		N/A	100,000
Center Contact	3A max		N/A	100,000
DWV	1050Vrms		400Vrms	
Low Level	10mA @ 30mV max DC or peak AC			
Electrical Life:		25,000 or 100,000 cycles (depending on configuration) High Force Push Pull 5,000 cycles		
Mechanical Life:		1 million cycles, circu 100,000 cycles, circu High Force Push Pull	it forms 3, 4 & 5	
Seal:		IP64 or IP68S and IP6 IP64 or IP68S on pus	•	
Shock:		MIL-STD-202, metho	d 207	
Operating Temp Range:		-55°C to +85°C, High Force Push Pull -40°C to +85°C		
Operating Force:		2.5 lbs. or 4.0 lbs. Push-Pull: .5 to 2.0 lb Push-Pull High Force		
Reset Force:		0.75 lb. min or 1.0 lb.		
Total Travel:		0.085 +/- 0.015 inches		
Overtravel:		0.012 inches min		
Movement Differential:		0.015 inches min		
MATERIALS:				
Case:		Anodized aluminum a	alloy	
Button:		Thermoplastic		
Terminals:		Brass with silver, gold for low level		
Terminal Hardware:		Screws, lockwasher and terminal lug for screw terminal option		
Mounting Hardwar	e:	Hex nut, lockwasher	and panel seal when app	olicable

^{*} Add "W" suffix for watertight to IP68S and IP69K for Operating Force/Action selections 1 and 2.

Add "W" suffix for watertight to IP68S for Operating Force/Action selections 3 and 4.

**Available in Case Style 3 only.

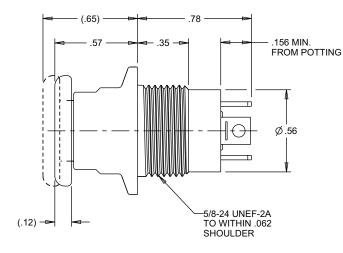
IDEAL FOR USE IN HEAVY MACHINERY & COMMERCIAL APPLICATIONS

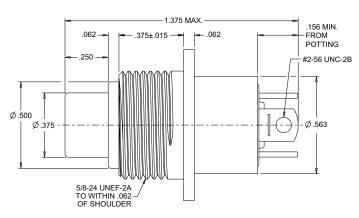


1.50 MAX. -.312±.015 .062 .156 MIN FROM POTTING .062 $\emptyset.563$ Ø.375±.015 .187 625-24UNEF-2A THD TO WITHIN .062 OF SHOULDER . 38 -

Style P3-11_2

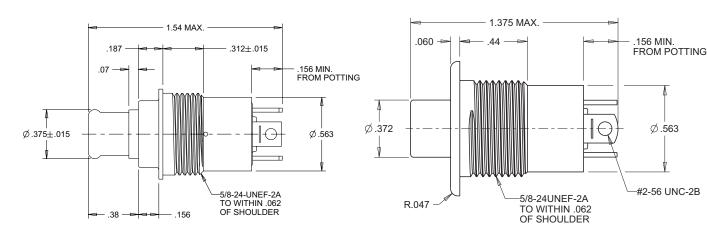
Style P3-33_3 Push-Pull





Style P3-33 4 Push-Pull High Force

Style P3-61 1



Style P3-71_3

Style P3-83_1

Ø.563

NOTEWORTHY DESIGNS

EXAMPLES OF CUSTOMIZED P3 SERIES SEALED PUSHBUTTONS

Special Shaped Bezel

Total Travel: 0.085" +/- 0.015" Operating Force: 2.5, +0.5, -1.0 lb. Reset Force: 0.75 lb. min

Circuit: SPNO-DB (Other circuits available)

Mechanical Life: 1,000,000 cycles

Button: Red nylon

Housing: Clear anodized aluminum

P3-30017



Special Journaled Button

Watertight to IP68S, black anodized case and thermoplastic button available in nine colors.

Circuit: SPNO-DB

Mechanical Life: 1,000,000 cycles Electrical Life: 100,000 cycles

P3-90308-X

(X denotes button color)



Special Large Round Button, **Quick Connect Tab Terminals**

Total Travel: 0.085" +/- 0.015" **Operating Force:** 4.0 +/- 1.0 lb. Reset Force: 1.0 lb. min

Circuit: SPNO-DB (Other circuits available)

Mechanical Life: 1,000,000 cycles

Button: Black nylon Housing: Clear anodized aluminum

P3-30031



Large Diameter Button

Nine different button colors, black anodized protective shroud, watertight to IP68S.

Circuit: SPNO-DB

Mechanical Life: 1,000,000 cycles Electrical Life: 100,000 cycles at full load

(X denotes button color)



Special Right Angle, Quick Connect Tabs, P3-6 Style

Total Travel: 0.085" +/- 0.015" **Operating Force:** 2.5, +0.5, -1.0 lb. Reset Force: 0.75 lb. min Circuit: SPNO-DB

Mechanical Life: 1,000,000 cycles

Button: Red nylon

Housing: Clear anodized aluminum

P3-60024



Special "H" Case with **Round Shaped Button**

Operating Force: 4.0 +/- 1.0 lb.

Reset Force: 1 0 lb min

Circuit: SPNC-DB (Other circuits available)

Mechanical Life: 1,000,000 cycles

Button: Red nylon

Housing: Black anodized aluminum

P3-80016



Special Snap-In, Panel-Sealed, **Rectangular Shaped Button**

Total Travel: 0.125" max Operating Force: 4.0 +/- 1.0 lb. Reset Force: 1.0 lb. min

Circuit: SPNO-DB (Other circuits available)

Mechanical Life: 1,000,000 cycles **Button:** Black polyester Housing: Clear anodized celenex

P3-90037



Large Diameter Button

Nylon button is 1.187". Snaps on to special style body with leads. Dusttight to IP64.

Operating Force: 2.5, +0.5, -1.0 lb. Mechanical Life: 1,000,000 cycles Rating: 10 amps Resistive Circuit: SPDT 2 circuit

P3-30101-X



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.

Same ratings and sealing characteristics as the standard P3 series.

SPNC is shown.

P3-90009



Emergency Stop Pushbutton PART NUMBER BUTTON COLOR P330115-1 RFD P330115-2 P330115-3 BLACK ORANGE YELLOW Ø.875 P330115-4 P330115-5 P330115-6 P330115-7 P330115-8 VIOLET GRAY P330115-9 WHITE .182 X .032 FASTONS

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

OTTO:

P3-32611W P3-32612W P3-61611W P3-61612W P3-31112 P3-32111 P3-31612 P3-61236 P3-81612 P3-34212 P3-33112 P3-33112 P3-62119 P3-72629 P3-73122W P3-81124 P3-82121 P3-31136 P3-82122 P3-82212 P3-82222W P3-82612 P3-82621 P3-61611 P3-62112 P3-62134 P3-64126W P3-71118 P3-81212 P3-82116 P3-31119 P3-31411W P3-31516 P3-31612W P3-32114 P3-61112W P3-33126 P3-33422 P3-81222W P3-82122W P3-82214 P3-84124W P3-32232 P3-32614 P3-32617 P3-32618 P3-32632 P3-33122 P3-61231 P3-31613 P3-31622 P3-31631 P3-32112W P3-32117 P3-82611 P3-83112W P3-11111 P3-31122W P3-31125W P3-61412 P3-81119 P3-81222 P3-81421 P3-82111W P3-82115 P3-31634 P3-32125 P3-32612 P3-32622 P3-32624 P3-32636 P3-33121W P3-34112 P3-61116 P3-61121 P3-61234 P3-61238 P3-72424 P3-72426 P3-73122 P3-31431 P3-31611 P3-32626 P3-33121 P3-33121 P3-61115 P3-61118 P3-31115 P3-31118 P3-31311 P3-31412 P3-31431 P3-31611 P3-32211 P3-62111 P3-62128 P3-71114 P3-71611W P3-71624 P3-72121