

# SUBMINIATURE BASIC SWITCHES

SINGLE BREAK, SNAP-ACTION, COMMERCIAL & MILITARY GRADES, SUBMINIATURE, TWO WIDTHS

Available in two widths, the B2 series can be specified to fit your application exactly.

In addition to being available with integral actuating levers as in the B2-5 series, the B2 series is also available with the A1 series auxiliary lever actuators as shown in the B3 section.

While the B2 series conforms to and is qualified to various military specifications, the same switch can be specified for commercial use at a cost savings.

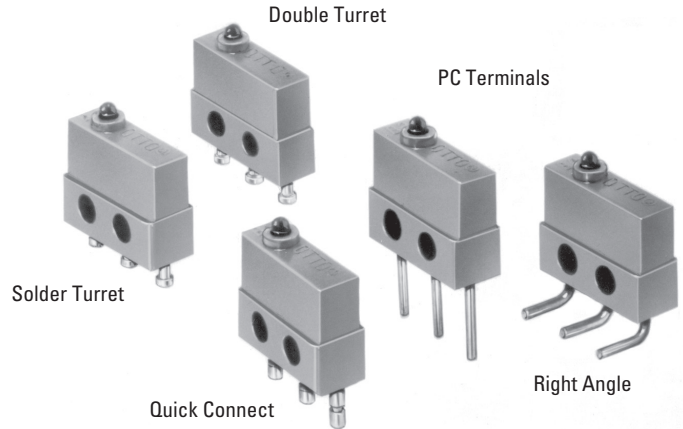
A choice of turret, quick connect and three lengths of printed circuit board style terminals are available for both the 0.156" and 0.200" wide models.

Whether it be military or commercial applications, OTTO can provide features you select for your application. You can specify the features you require without paying for ones you don't need.

The OTTO B2 subminiature switches conform to and are qualified under MIL-PRF-8805/4, MIL-PRF-8805/106 (high temp -55°C to +205°C) and MIL-PRF-8805/109. Basic switches are designed for miniature spaces where cam or other limit actuators are used on the button. In addition, a full range of toggle, pushbutton and lever actuators are available.

## Features:

- Choice of 0.156" & 0.200" wide models
- Up to 7 amps switching
- Sensitive movement differentials
- Low operating forces
- Choice of 8 terminal styles or wire leads
- Long operating life
- Qualified under MIL-PRF-8805/4, MIL-PRF-8805/106 & MIL-PRF-8805/109
- Momentary action
- UL recognized
- RoHS compliant

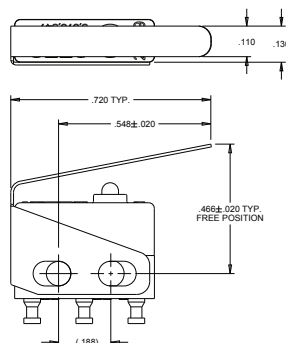
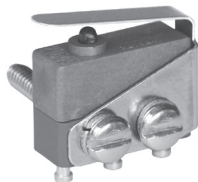


### Standard Characteristics/Ratings:

#### ELECTRICAL RATINGS:

High Level Switch Ratings		
Load	Rating – Sea Level	Rating – 50,000 feet
<b>115VAC, 60Hz silver contacts with gold plate</b>		
Resistive	7A	N/A
Inductive	7A	N/A
Lamp	2A	N/A
<b>28VDC, silver contacts with gold plate</b>		
Resistive	7A	4A
Inductive	4A	2.5A
Lamp	2.5A	2.5A
Low Level Switch Ratings		
<b>28VDC, gold plate contacts</b>		
Resistive	1A	1A
Inductive	0.5A	0.5A
Lamp	N/A	N/A
<b>DWV:</b>	1000Vrms	400Vrms
<b>Electrical Life:</b>	25,000 to 100,000 cycles (dependent on part number)	
<b>Mechanical Life:</b>	50,000 to 250,000 cycles (dependent on part number)	
<b>Seal:</b>	Unsealed	
<b>Operating Temp Range:</b>	-55°C to +85°C, high temp rating -55°C to +205°C	
<b>Operating Force:</b>	5 oz or 6 oz	
<b>Release Force:</b>	1 oz min	
<b>Operate Point:</b>	0.320 +/- 0.015 inches from mounting holes	
<b>Overtravel:</b>	0.004 inches min	
<b>Movement Differential:</b>	0.006 inches max	
<b>Pretravel:</b>	0.020 inches max	
MATERIALS:		
<b>Case:</b>	Thermoset, blue	
<b>Cover:</b>	Thermoplastic, blue	
<b>Button:</b>	Thermoplastic, black	
<b>Terminals:</b>	Brass, gold over nickel	
<b>Contacts:</b>	Stationary: Silver with gold Moveable: Silver or gold	
<b>Terminal Hardware:</b>	None provided	
<b>Optional Wires:</b>	24 AWG blue, red, yellow	
<b>Mounting Hardware:</b>	None provided	

### Auxiliary Lever Actuators for B2



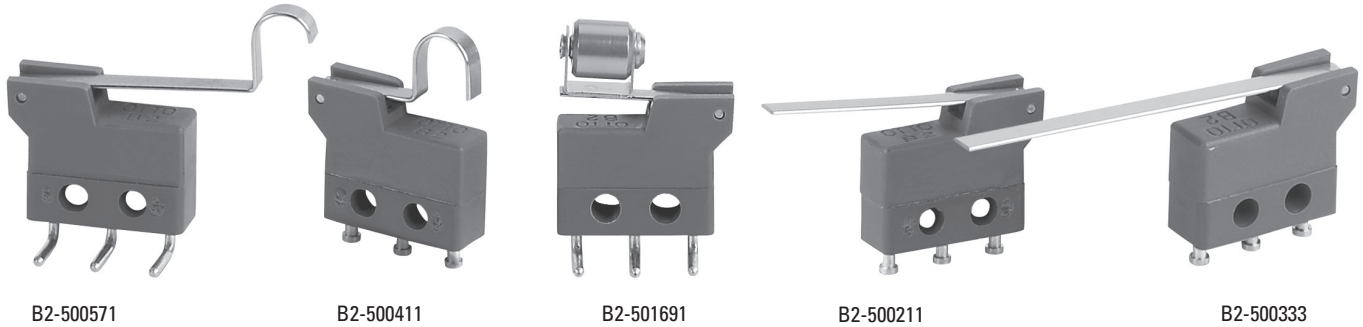
Catalog Number	Number of Poles
A1-115-01	1
A2-109	2

Supplied with two 2-56 panhead screws, hex nuts and lockwashers.

A1-115-01 Shown

For additional options, contact factory.

SINGLE BREAK, SNAP-ACTION, COMMERCIAL & MILITARY GRADES, SUBMINIATURE, TWO WIDTHS, INTEGRAL LEVERS



Shown are examples of available lever styles.

### B2-5 Integral Lever Basic Switches

B2-5 series basic switches feature integral actuating levers. The lever is built-in so that the switch and actuator are one assembly.

Making the lever actuator an integral part of the basic switch case makes sense and saves money, too. Better precision, no auxiliary parts for you to assemble, and more variety add up to a cost saving proposition.

Lever Style	Catalog Number	STANDARD OPERATIONAL CHARACTERISTICS					
		Operating Force (max ounces)	Release Force (min ounces)	Pretravel (max inches)	Overtravel (min inches)	Move't Differ'l (max inches)	Operating Point (inches)
Short Lever	B2-500111	1.76	0.32	0.065	0.014	0.020	0.330 +/- 0.045
Medium Lever	B2-500211	1.10	0.18	0.115	0.025	0.035	0.330 +/- 0.045
Long Lever	B2-500311	0.71	0.11	0.185	0.046	0.060	0.330 +/- 0.045
Short Formed "U" Lever	B2-500411	2.10	0.39	0.050	0.010	0.015	0.553 +/- 0.035
Long Formed "U" Lever	B2-500511	1.10	0.18	0.105	0.022	0.035	0.572 +/- 0.070
Lever Style with Hole	B2-500611	1.10	0.18	0.115	0.025	0.035	0.330 +/- 0.045
Short "V" Lever	B2-501211	3.00	0.57	0.042	0.010	0.010	0.419 +/- 0.030
Roller Sleeve Sideways	B2-501611	2.29	0.43	0.065	0.008	0.020	0.560 +/- 0.045
Short "L" Lever	B2-501711	3.00	0.57	0.036	0.008	0.009	0.411 +/- 0.028
Short Flat "V" Lever	B2-501811	2.20	0.40	0.049	0.010	0.015	0.421 +/- 0.037
Roller Lever in Line	B2-501911	2.29	0.43	0.070	0.008	0.020	0.559 +/- 0.050
Long Roller Lever in Line	B2-502011	1.00	0.17	0.125	0.020	0.040	0.552 +/- 0.100

### B2-5 PART NUMBER CODE

**B2-5**    **X X X**

**Lever Style**

- 001. Short Straight
- 002. Medium Straight
- 003. Long Straight
- 004. Short Formed "U"
- 005. Long Formed "U"
- 006. With Hole
- 012. Short "V"
- 016. Roller Sleeve Sideways
- 017. Short "L"
- 018. Short Flat "V"
- 019. Roller Lever in Line
- 020. Long Roller Lever in Line

\* Mates with AMP .058" receptacles  
\*\* Opposite of 7

**Terminal Style or Wire Length**

- 1. Single Solder Turret
- 2. Double Solder Turret
- 3. Quick Connect\*
- 4. PC Pin 0.150" lg.
- 5. PC Pin 0.270" lg.
- 6. PC Pin 0.090" lg.
- 7. Right Angle PC Pin

**X**

- 9. Right Angle\*\*
- A. With Wires 06.0" lg.
- B. With Wires 12.0" lg.
- C. With Wires 18.0" lg.
- D. With Wires 24.0" lg.
- E. With Wires 30.0" lg.

**X**

**Contact Material**

- 1. Silver/Gold - High Current
- 3. Silver/Gold - Low Current

Votre distributeur officiel



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Indicate. Control. Connect.

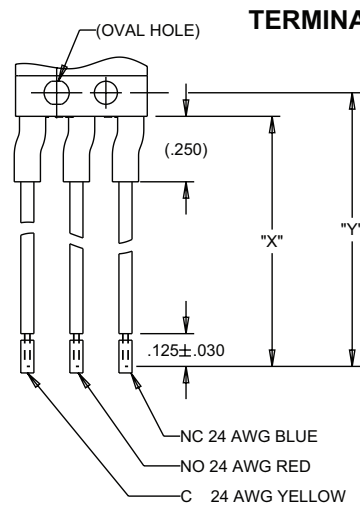
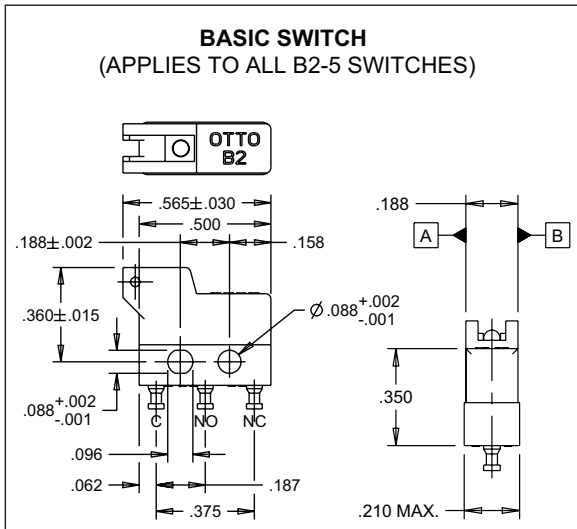
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# B2 BASICS WITH INTEGRAL LEVERS

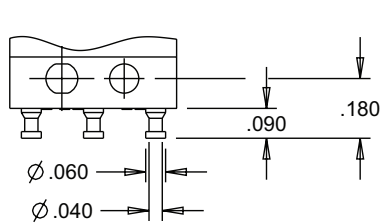
**B2-5**  
BASIC SWITCHES

SINGLE BREAK, SNAP-ACTION, COMMERCIAL & MILITARY GRADES, SUBMINIATURE, TWO WIDTHS, INTEGRAL LEVERS

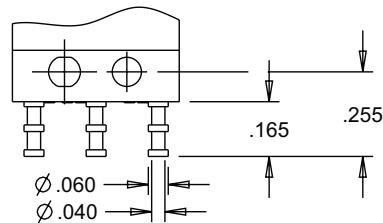


**WIRE LENGTH FOR A, B, C, D & E**

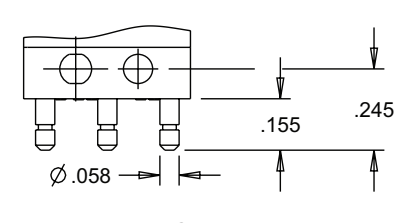
WIRE LENGTH CODE	DIM. "X"	DIM. "Y"
A	06.00±.38	06.09±.38
B	12.00±.50	12.09±.50
C	18.00±.50	18.09±.50
D	24.00±.50	24.09±.50
E	30.00±.75	30.09±.75



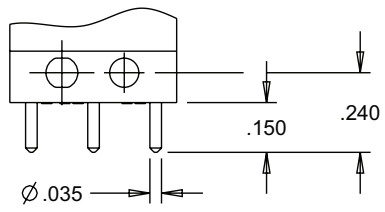
**TERMINAL STYLE 1**  
SINGLE SOLDER TURRET



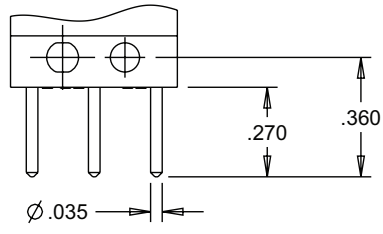
**TERMINAL STYLE 2**  
DOUBLE SOLDER TURRET



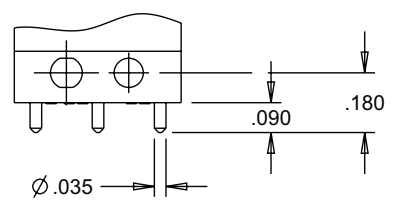
**TERMINAL STYLE 3**  
QUICK CONNECT  
MATES WITH AMP .058 INCH RECEPTACLES



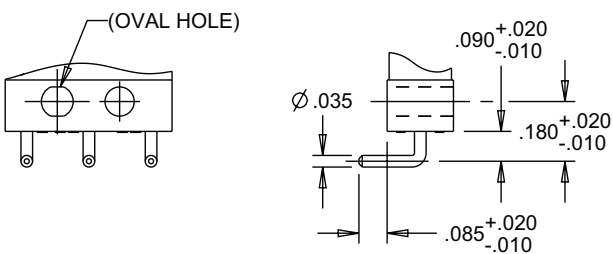
**TERMINAL STYLE 4**  
PRINTED CIRCUIT PIN 0.150" LONG



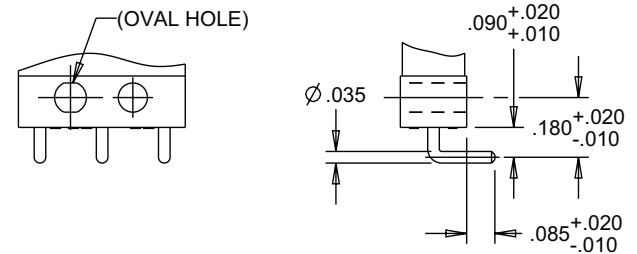
**TERMINAL STYLE 5**  
PRINTED CIRCUIT PIN 0.270" LONG



**TERMINAL STYLE 6**  
PRINTED CIRCUIT PIN 0.090" LONG



**TERMINAL STYLE 7**  
RIGHT ANGLE PRINTED CIRCUIT PIN

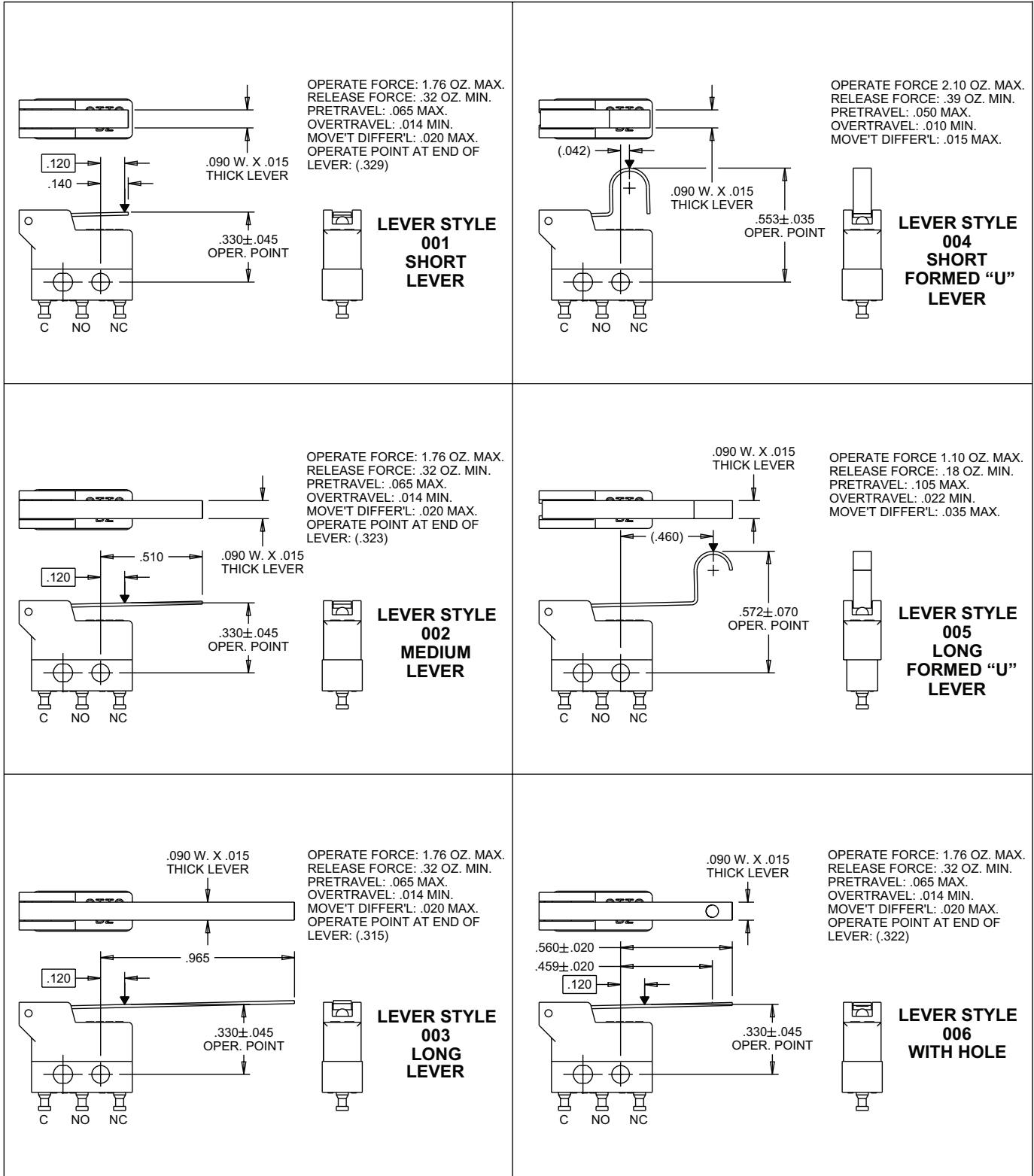


**TERMINAL STYLE 9**  
RIGHT ANGLE, OPPOSITE OF 7

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## B2-5 LEVER STYLES



# B2 BASICS WITH INTEGRAL LEVERS

**B2-5**  
BASIC SWITCHES

SINGLE BREAK, SNAP-ACTION, COMMERCIAL & MILITARY GRADES, SUBMINIATURE, TWO WIDTHS, INTEGRAL LEVERS

## B2-5 LEVER STYLES

