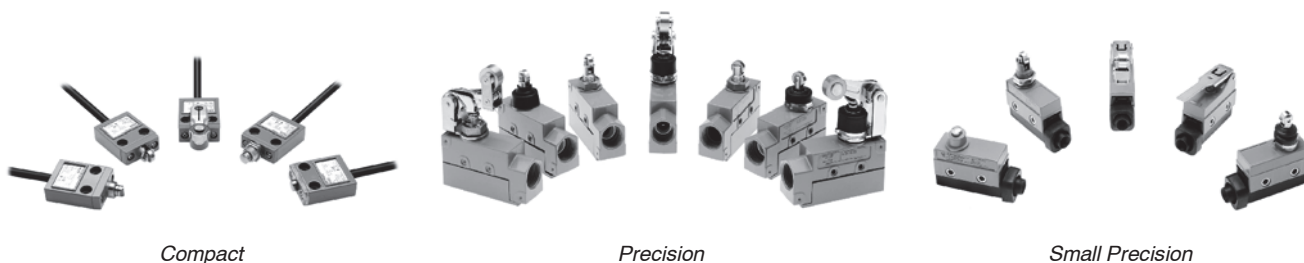


# 802B Compact, Precision and Small Precision



## Description

Bulletin 802B consists of different body styles: compact, precision and small precision. Each style has been designed to withstand the rugged environments that industrial applications demand. Each style utilizes industry standard mounting dimensions and operating characteristics. The 802B family of limit switches can be mounted in areas that traditional NEMA limit switches can not, due to their size and mounting options.

The 802B compact limit switch uses a die-cast housing with a 3m prewired cable. This limit switch is available with 13 unique head configurations. Each head style can be ordered as a standard model, LED indicator model, or as a low current model. The compact limit switch maintains NEMA 6 and IP67 enclosure ratings by utilizing a triple seal construction.

The 802B precision limit switch uses a die-cast housing with 1/2 NPT conduit entry. This limit switch is available with 5 unique head configurations. Each different head is available as standard or with a rubber boot for additional sealing. Two different mounting styles are available. Side mount or flange rubber boot for additional sealing. Two different mounting styles are available: side mount or flange mount.

The 802B small precision limit switch is similar to the 802B Precision limit switch with some additional features. This switch offers an enclosure rating of

NEMA 6 and IP67 which is achieved by a rubber cable gland sealing the control cable entry. This limit switch offers 12 different head configurations, including some that are unique to this product offering.

## Specifications

	Compact	Precision	Small Precision
<b>Certifications</b>	UL Listed, CSA Certified and CE Marked for all applicable directives	UL Listed, CSA Certified and CE Marked for all applicable directives	UL Recognized, CSA Certified and CE Marked for all applicable directives
<b>Enclosure Rating</b>	NEMA 1,3,4,6,12,13 and IP67	NonBooted: NEMA 1 and IP60 Booted: NEMA 1,3,4, and IP65	NEMA 1, 3, 4, 6, 13 and IP67
<b>Mechanical Life</b>	Approx. 10,000,000 operations ①	Approx. 10,000,000 operations ①	Approx. 10,000,000 operations ②
<b>Electrical Life</b>	Approx. 200,000 operations (3 A 250 V AC, resistive load) ①	Approx. 500,000 operations (15 A 250 V AC, resistive load) ①	Approx. 500,000 operations (10 A 250 V AC, resistive load) ②
<b>Operating Speed</b>			
<b>Top Push</b>	0.1 mm...0.5 m per second	0.01 mm...0.5 m per second	0.05 mm...0.5 m per second
<b>Side Rotary</b>	1 mm...1 m per second	—	—
<b>Lever Type</b>	—	0.02 mm...0.5 m per second	—
<b>Operating Frequency</b>			
<b>Mechanical</b>	120 operations/minute	120 operations/minute	120 operations/minute
<b>Electrical</b>	30 operations/minute	20 operations/minute	20 operations/minute
<b>Operating Temperature [C (F)]</b>	-10...70° (14...158°) with no icing	-10...80° (14...176°) with no icing	-10...80° (14...176°) with no icing
<b>Short Circuit Protection</b>	Quick blow fuse suitable for rated current is recommended	Quick blow fuse suitable for rated current is recommended	Quick blow fuse suitable for rated current is recommended
<b>Contact Type</b>	SPDT Form C	SPDT Form C	SPDT Form C

① Life expectancy has been calculated at an operating temperature of 5...35°C (41...95°F) and an operating humidity of 40...70%.  
 ② Life expectancy has been calculated at an operating temperature of 20°C (68°F) and an operating humidity of 65%.

## Features

- Rugged die-cast housing
- Industry standard dimensions
- Compact size
- Multiple mounting options
- Wide range of operating voltage and current ratings

## Style

- Compact ..... page 5-88
- Precision ..... page 5-97
- Small Precision ..... page 5-105

# 802B Compact, Precision and Small Precision

## Specifications Compact

Rated Voltage	Non-Inductive Resistive Load	Inductive Load			Inrush Current			
		Inductive	Motor Load		N/O	N/C		
			N/O	N/C				
<b>Standard Models</b>								
125V AC	5 A	3 A	1.3 A	2.5 A	10 A max	20 A max		
250V AC	5 A	2 A	0.8 A	1.5 A				
8V DC	5 A	5 A	3 A	3 A				
14V DC	5 A	4 A	3 A	3 A				
30V DC	4 A	3 A	3 A	3 A				
125V DC	0.4 A	0.4 A	0.05 A	0.05 A				
250V DC	0.2 A	0.2 A	0.03 A	0.03 A				
<b>AC LED Models</b>								
125V AC	5 A	3 A	1.3 A	2.5 A				
125V DC	0.4 A	0.4 A	0.05 A	0.05 A				
<b>DC LED Models</b>								
30V DC	4 A	3 A	3 A	3 A				
<b>Low Current Models</b>								
125V AC	0.1 A	—						
8V DC	0.1 A							
14V DC	0.1 A							
30V DC	0.1 A							

### UL/CSA Approved Ratings

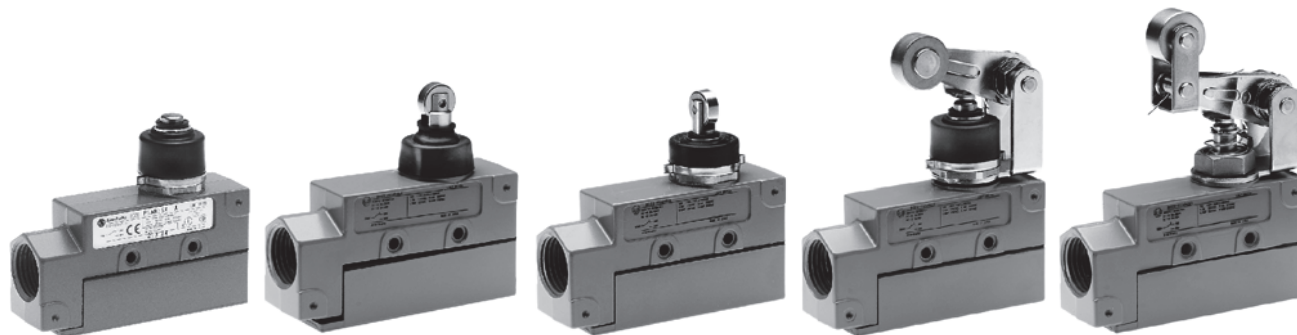
NEMA Rating Designation	Rated Voltage	A		Continuous Current	Volt	Amps
		Make	Break			
B300	120V AC	30	3	5	3,600	360
	240V AC	15	1.5			
<b>AC LED Versions</b>						
B150	120V AC	30	3	5	3,600	360
<b>Leakage Current for LED Models</b>						
	Voltage	Leakage Current		Resistance		
AC LED	125	1.7 mA		68 kΩ		
DC LED	30			15 kΩ		

## Precision

Rated Voltage	Non-Inductive Resistive Load	Inductive Load			Inrush Current		UL/CSA Approved Ratings		
		Inductive	Motor Load		N/O	N/C	Rated Voltage	Current	Horsepower
			N/O	N/C					
125V AC	15 A	15 A	2.5 A	5 A	15 A max	30 A max	120V AC	15 A	1/8 HP 1/4 HP
250V AC	15 A	2.5 A	1.5 A	3 A			250V AC	15 A	
480V AC	10A	1.5 A	0.75 A	1.5 A			480V AC	15 A	
125V DC	0.5 A	0.5 A	0.05 A				125V DC	0.5 A	—
250V DC	0.25 A	0.25 A	0.03 A				250V DC	0.25 A	

## Small Precision

Rated Voltage	Non-Inductive Resistive Load	Inductive Load				Inrush Current		NEMA Rating Designation	UL/CSA Approved Ratings					
		Inductive	Motor Load		N/O	N/C	Rated Voltage		A		Continuous Current	Volt	Amps	
			N/O	N/C					Make	Break				
125V AC	10A	10 A	2.5 A	5 A	15 A max	30 A max	A300	120V AC	60	6	10	7,200	720	
250V AC	10A	10 A	1.5 A	3 A				240V AC	30	3				
8V DC	10A	6 A	2.5 A	5 A										
14V DC	10A	6 A	2.5 A	5 A										
30V DC	6A	5 A	2.5 A	5 A										
125V DC	0.5 A	0.05 A	0.05 A											
250V DC	0.25 A	0.03 A	0.03 A											



*Top Push Booted*

*Top Push  
Roller Booted*

*Top Push Cross  
Roller Booted*

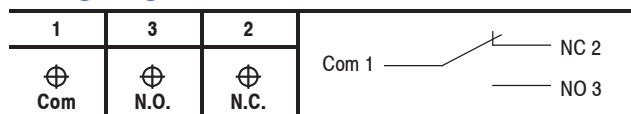
*Roller Lever  
Booted*

*One-Way Roller  
Lever Booted*

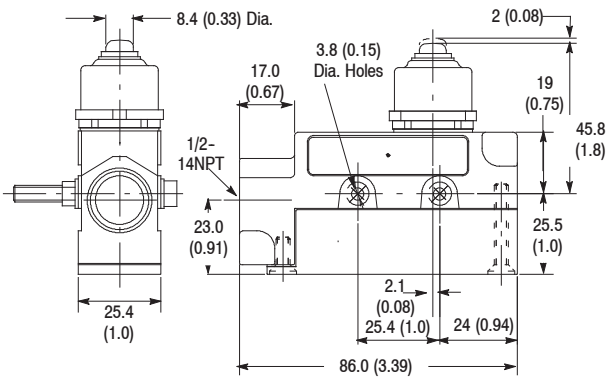
### Product Selection

Head Type	Force to Operate	Travel to Operate	Max Travel	Travel to Reset	Mounting Style	Cat. No.
Top Push Booted	7.85 N (1.76 lb)	2 mm (0.079 in.)	7 mm (0.276 in.)	0.1 mm (0.004 in.)	Side	<b>802B-PSABBSX</b>
Top Push Roller Booted	4.9 N (1.09 lb)	1 mm (0.039 in.)	4.5 mm (0.177 in.)	0.12 mm (0.005 in.)		<b>802B-PSADBSX</b>
Top Push Cross Roller Booted						<b>802B-PSAD1BSX</b>
Roller Lever Booted	6.28 N (1.40 lb)	5 mm (0.197 in.)	11 mm (0.433 in.)	0.4 mm (0.016 in.)		<b>802B-PSARBSX</b>
One-Way Roller Lever Booted						<b>802B-PSAR2BSX</b>

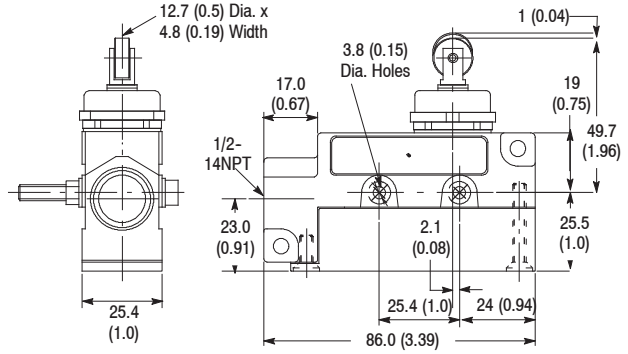
### Wiring Diagrams



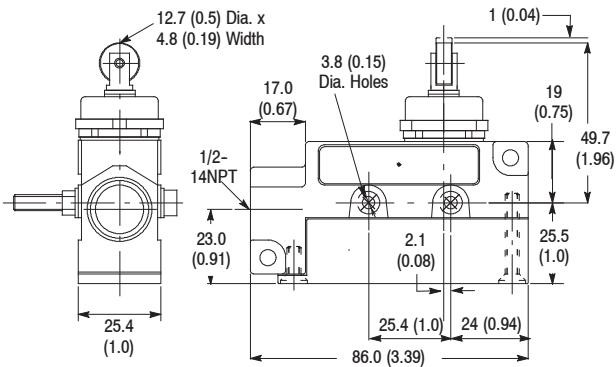
Approximate Dimensions [mm (in.)]



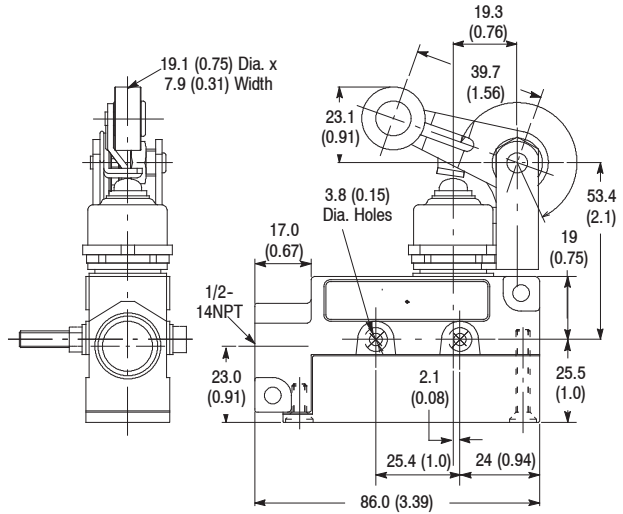
802B-PSABBSX



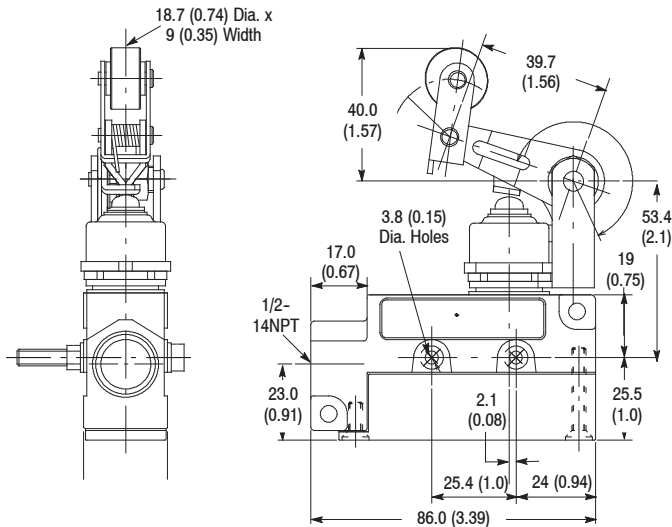
802B-PSADBSX



802B-PSAD1BSX



802B-PSARBSX



802B-PSAR2BSX