

802T

Introduction



Plug-in Style
802T-AP with
Lever

NonPlug-in Style
802T-A with
Lever

Description

Bulletin 802T limit switches are ideal for applications in which heavy duty pilot ratings, small size, a high degree of versatility and a rugged NEMA Type 4 and 13 oiltight construction are desirable. An important factor in the automation of industry, these limit switches are being applied extensively on conveyor systems, transfer machines, automatic turret lathes, milling and boring machines, radial drills, and many other types of modern, high speed production equipment.

High Degree of Versatility

Bulletin 802T limit switches can be mounted in any position, with operating heads that can be rotated and fastened in any one of four positions 90° apart. Most operating levers are interchangeable and can be rotated and clamped in any position through 360°. Accessories can be added to switches already in the field.

NEMA Type 4, 13 and 6P ① Oiltight Construction

802T limit switches feature NEMA Type 4 and 13 construction with synthetic rubber seals to protect the operating parts against entry of oil, dust, abrasives, water and coolant, within the limits of NEMA-specified tests.

① Plug-in lever type except low-torque models.

Rugged, Dependable Contact Block

The contacts used in Bulletin 802T switches are snap-action type with high snap-through force resulting in minimum contact rebound. Double break, fine silver contacts are electrically independent, but cannot be used on opposite polarities.

Easy Mounting and Wiring

Each switch base has four mounting holes: two “through” holes for front mounting and two tapped holes in the back for rear mounting. The pressure plate type terminals on the contact block face to the front of the switch and have ample wiring space around them. The switch conduit opening is a 1/2-inch threaded pipe tap in the bottom of the housing.

Direct Opening Action Position Interlock Switches

Bulletin 802T Direct Opening Action limit switches have been designed for use in control reliable applications and safety applications per ISO 14119.

Direct Opening Action assures that the normally closed contacts open when the limit switch is actuated. This opening will occur even in the event of a contact weld condition, up to 10 Newtons.

Lever Type Switches

These switches are operated by means of a lever which is clamped to a knurled shaft extending from the operating head.

Lever type switches can be equipped with a variety of operating levers: roller lever, adjustable roller lever, micrometer adjustment roller lever, rod lever, one-way rod or roller lever and fork lever. These can be used interchangeably on all lever type switches except the **low operating force switch**.

Push Type Switches

These switches are actuated by means of a rod or plunger located on the top or side of the operating head. Pushing the plunger into the head causes the contacts to operate. Two types of plungers are available: rod type and steel roller. Side push rod switches can be supplied in spring return or maintained contact constructions. An adjustable length top push rod is also

available. The contacts are snap-acting with high snap-through force resulting in minimum contact rebound.

Wobble Stick and Cat Whisker Type Switches

Both switches are actuated by a rod or wire extending from the top of the operating head. Moving the rod through a specified angle in any direction causes the contacts to operate. All wobble stick and cat whisker switches are supplied with spring return construction only. The contacts are snap-action type with high snap-through force resulting in minimum contact rebound.

Dual Switches

The dual switch is actually two limit switches which function independently but have a common enclosure. These switches are used for installations where two switches would be mounted side by side. There is a saving on installation time and fittings (see page 5-71).

Plug-in Switches

Plug-in style limit switches can reduce costly downtime by eliminating the need for rewiring switches. The head and switch body can be replaced without disturbing the wiring chamber in the base. These units, featuring a castle lock head design, snap-action contacts and reliable plug-in connection are available in 2-circuit or 4-circuit construction. Plug-in style limit switches are listed on page 5-41.

Four-Circuit NonPlug-in Switches

These switches contain two single pole single throw contact blocks (a total of two N.O. and two N.C. contacts) mounted in a common enclosure. The blocks are mounted one above the other in the vertical limit switch construction, or side by side in the horizontal construction. Switch plungers are mechanically coupled in both constructions. When actuated, contacts in both blocks are operated. These switches in both types of construction are listed on page 5-54.

General Information

Plug-in Style page 5-41
NonPlug-in Style page 5-54

Operating Levers

Lever Selection page 5-130



Description

Bulletin 802T limit switches are ideal for applications in which heavy duty pilot ratings, small size, a high degree of versatility and a rugged NEMA Type 4, 13 and 6P[Ⓢ] construction are desirable. An important factor in the automation of industry, these limit switches are being applied extensively on conveyor systems, transfer machines, automatic turret lathes, milling and boring machines, radial drills, and many other types of modern, high speed production equipment.

A wide variety of operating heads and operating levers are available. Operating heads can be mounted in four positions, 90° apart.

Features

- Front mount for simplified mounting
- Plug-in style for ease of wiring
- Side rotary, wobble stick, cat whisker, adjustable top and top or side push styles with and without rollers
- Quick mode change to clockwise and counterclockwise operation only
- Castle lock head design for high durability

Ⓢ Plug-in lever type except low-torque models.

Ⓢ Temperature range below 0 °C (+32 °F) is based on the absence of freezing moisture or water. See page 5-53 for low temperature options.

Ⓢ Low operating torque-spring return ratings only.

Specifications

Enclosure Rating	NEMA 4, 13, 6P [Ⓢ] and IP67
Pollution Degree	3
Certifications	UL Listed, CSA Certified CE Marked for applicable directives
Ambient Temperature [C (F)] [Ⓢ]	-18...+110° (0...+230°) Exception: Wobble stick and cat whisker devices are rated from -18...+54° (0...+130°)

AC Contact Rating (Maximum per Pole, 50 or 60 Hz, 2 Circuits Same Polarity)

NEMA Rating Designation	Max Voltage	A		Continuous Carrying Current	VA	
		Make	Break		Make	Break
A600 AC-15	120	60	6.00	10	7200	720
	240	30	3.00	10	7200	720
	480	15	1.50	10	7200	720
	600	12	1.20	10	7200	720
B600 [Ⓢ] AC-15	120	30	3.00	5	3600	360
	240	15	1.50	5	3600	360
	480	7.5	0.75	5	3600	360
	600	6	0.60	5	3600	360

AC Contact Rating (Maximum per Pole, 50 or 60 Hz, 4 Circuits Same Polarity)

NEMA Rating Designation	Max Voltage	A		Continuous Carrying Current	VA	
		Make	Break		Make	Break
A300	120	60	6.00	10	7200	720
	240	30	3.00	10	7200	720

DC Contact Rating (Maximum per Pole)

Circuits	Voltage Range	Current Rating
2	115-125	0.4 A
	230-250	0.2 A
	550-600	0.1 A
4	115-125	0.4 A
	230-250	0.2 A

Plug-in Style

Lever Type • Spring Return page 5-42
Standard and Low Operating Torque Models

Lever Type • Maintained . . . page 5-44
Contact and Neutral Position

Push Type • Spring Return . . . page 5-45
Wobble Stick and Cat page 5-47
Whisker • Spring Return

Modifications and page 5-53
Accessories

802T Operating Levers

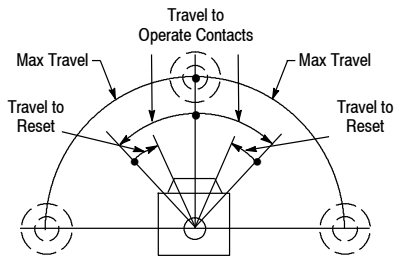
Lever Selection page 5-130

Limit Switches

802T Lever Type • Spring Return

Plug-in Style Oiltight Switches

Range of Operation



Switch Without Lever



Switch Without Lever and Base

Product Selection—Standard and Low Operating Torque Models

Number of Circuits	Lever Movement vs. Contact Operation		Torque/Force to Operate, Max.	Travel to Operate Contacts, Max.	Max. Travel	Travel to Reset Contacts, Max.	Cat. No.	
							Switch w/o Lever	Switch w/o Lever and Base
2	Clockwise or Counterclockwise		0.29 N•m (2.6 lb•in) Nominal	13°	90°	7°	802T-AP	802T-AP1
				18°			★ 802T-A5P	★ 802T-A5P1
				5° Nominal			802T-FP	802T-FP1
				9°			802T-HP	802T-HP1
				13°			802T-A1P	802T-A1P1
				18°			★ 802T-A3P	★ 802T-A3P1
	Clockwise		0.29 N•m (2.6 lb•in) 0.56 N•m (5 lb•in)	9°	90°	7°	802T-H1P	802T-H1P1
				13°			802T-A2P	802T-A2P1
				18°			★ 802T-A4P	★ 802T-A4P1
				9°			802T-H2P	802T-H2P1
				13°			802T-ALP	802T-ALP1
				18°			† 802T-AL1P	† 802T-AL1P1
Counterclockwise		0.29 N•m (2.6 lb•in) 0.56 N•m (5 lb•in)	9°	90°	7°	802T-AL2P	802T-AL2P1	
			13°			† 802T-AL1P	† 802T-AL1P1	
			18°			802T-AL2P	802T-AL2P1	
			9°			802T-ATP	802T-ATP1	
			13°			802T-HTP	802T-HTP1	
			18°			802T-A1TP	802T-A1TP1	
Clockwise or Counterclockwise		0.45 N•m (4 lb•in) 0.79 N•m (7 lb•in)	9°	90°	7°	802T-H1TP	802T-H1TP1	
			13°			802T-A2TP	802T-A2TP1	
			18°			802T-H2TP	802T-H2TP1	
			9°			802T-ATP	802T-ATP1	
			13°			802T-HTP	802T-HTP1	
			18°			802T-A1TP	802T-A1TP1	
Clockwise		0.45 N•m (4 lb•in) 0.79 N•m (7 lb•in)	9°	90°	7°	802T-H1TP	802T-H1TP1	
			13°			802T-A2TP	802T-A2TP1	
			18°			802T-H2TP	802T-H2TP1	
			9°			802T-ATP	802T-ATP1	
			13°			802T-HTP	802T-HTP1	
			18°			802T-A1TP	802T-A1TP1	
Counterclockwise		0.45 N•m (4 lb•in) 0.79 N•m (7 lb•in)	9°	90°	3.5°	802T-H2TP	802T-H2TP1	
			13°			802T-ATP	802T-ATP1	
			18°			802T-HTP	802T-HTP1	
			9°			802T-A1TP	802T-A1TP1	
			13°			802T-H1TP	802T-H1TP1	
			18°			802T-A2TP	802T-A2TP1	

★ Fluorinated elastomer shaft seal is supplied with these devices.

† Low operating torque model.

Approximate Dimensions—See page 5-43.

Levers—See page 5-130 for a complete listing of operating levers.

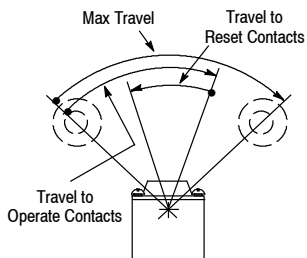
Modifications and Accessories—See page 5-53.

Limit Switches

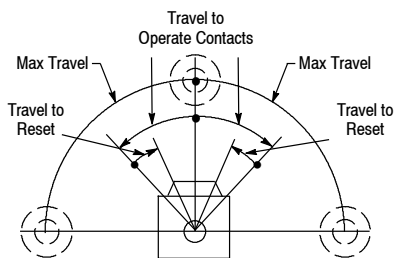
802T Lever Type • Maintained Contact and Neutral Position

Plug-in Style Oiltight Switches

Range of Operation



Maintained Contact Models



Neutral Position Models

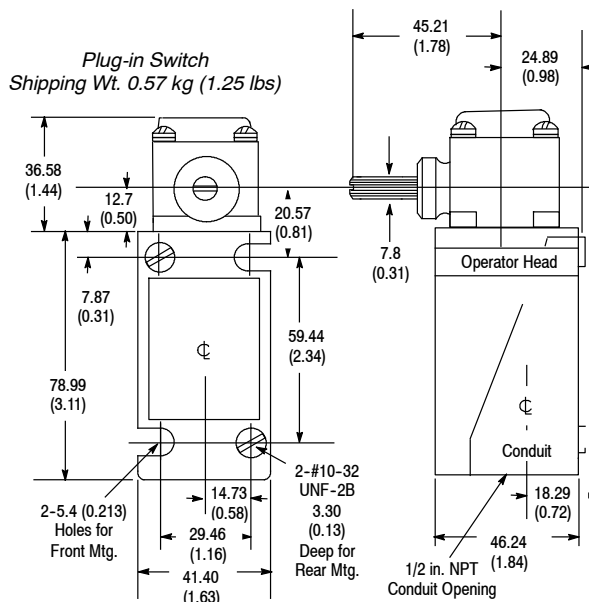


Switch Without Lever



Switch Without Lever and Base

Approximate Dimensions [mm (in.)]



Product Selection—Maintained Contact Models

No. of Circuits	Lever Movement vs. Contact Operation	Torque to Operate (Max.)	Travel to Operate Contacts (Max.)	Max Travel	Travel to Reset Contacts (Max.)	Cat. No.	
						Switch w/o Lever	Switch w/o Lever & Base
2	Clockwise or Counterclockwise 	0.31 N•m (2.75 lb•in)	70° 1	88° 1	32°	802T-AMP	802T-AMP1
4	Clockwise or Counterclockwise 	0.32 N•m (2.8 lb•in)				802T-AMTP	802T-AMTP1

1 From one maintained position to another.

Product Selection—Neutral Position Models

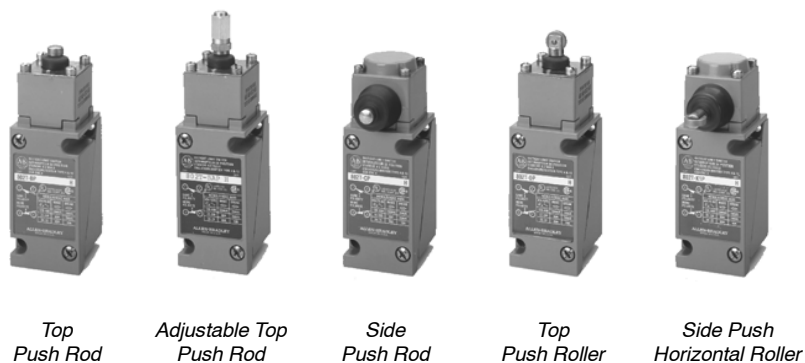
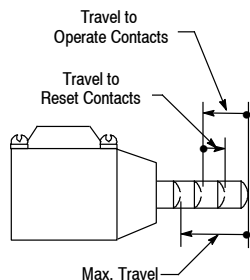
Lever Movement vs. Contact Operation	Torque to Operate (Max.)		Travel to Operate Contacts (Max.)	Max Travel	Travel to Reset Contacts (Max.)	Cat. No.	
	Clockwise	Counter-clockwise				Switch w/o Lever	Switch w/o Lever & Base
	0.28 N•m (2.5 lb•in)	0.47 N•m (4.2 lb•in)	13°	75°	7°	802T-NPTP	802T-NPTP1

Levers—See page 5-130 for a complete listing of operating levers.

Modifications and Accessories—See page 5-53.

802T Push Type • Spring Return Plug-in Style Oiltight Switches

Range of Operation



Product Selection

Number of Circuits	Contact Operation		Operator Type	Torque/Force to Operate, Max.	Travel to Operate Contacts, Max.	Maximum Travel	Travel to Reset Contacts, Max.	Cat. No.																	
	Normal	Operated						Switch w/o Lever	Switch w/o Lever and Base																
2	<table style="border-collapse: collapse; text-align: center;"> <tr><td>1○</td><td>○2</td></tr> <tr><td>3○</td><td>○4</td></tr> </table>	1○	○2	3○	○4	<table style="border-collapse: collapse; text-align: center;"> <tr><td>1○</td><td>○2</td></tr> <tr><td>3○</td><td>○4</td></tr> </table>	1○	○2	3○	○4	Top Push Rod	13.8 N (3.1 lb)	1.4 mm (0.057 in.)	6.0 mm (0.236 in.)	0.9 mm (0.034 in.)	802T-BP	802T-BP1								
		1○	○2																						
		3○	○4																						
		1○	○2																						
		3○	○4																						
		Adjustable Top Push Rod	802T-BAP	802T-BAP1																					
Side Push Rod	16.4 N (3.7 lb)	3.3 mm (0.131 in.)	5.7 mm (0.226 in.)	1.9 mm (0.074 in.)	802T-CP	802T-CP1																			
Top Push Roller	13.8 N (3.1 lb)	1.4 mm (0.057 in.)	6.0 mm (0.236 in.)	0.9 mm (0.034 in.)	802T-DP	802T-DP1																			
Side Push Vertical Roller	16.4 N (3.7 lb)	3.3 mm (0.131 in.)	5.7 mm (0.226 in.)	1.9 mm (0.074 in.)	802T-KP	802T-KP1																			
					Side Push Horizontal Roller	802T-K1P	802T-K1P1																		
4	<table style="border-collapse: collapse; text-align: center;"> <tr><td>1○</td><td>○2</td></tr> <tr><td>3○</td><td>○4</td></tr> <tr><td>5○</td><td>○6</td></tr> <tr><td>7○</td><td>○8</td></tr> </table>	1○	○2	3○	○4	5○	○6	7○	○8	<table style="border-collapse: collapse; text-align: center;"> <tr><td>1○</td><td>○2</td></tr> <tr><td>3○</td><td>○4</td></tr> <tr><td>5○</td><td>○6</td></tr> <tr><td>7○</td><td>○8</td></tr> </table>	1○	○2	3○	○4	5○	○6	7○	○8	Top Push Rod	22.2 N (5.0 lb)	1.4 mm (0.057 in.)	6.0 mm (0.236 in.)	0.9 mm (0.034 in.)	802T-BTP	802T-BTP1
		1○	○2																						
		3○	○4																						
		5○	○6																						
		7○	○8																						
		1○	○2																						
3○	○4																								
5○	○6																								
7○	○8																								
Adjustable Top Push Rod	802T-BATP	802T-BATP1																							
Side Push Rod	24.9 N (5.6 lb)	3.3 mm (0.131 in.)	5.7 mm (0.226 in.)	1.9 mm (0.074 in.)	802T-CTP	802T-CTP1																			
Top Push Roller	22.2 N (5.0 lb)	1.4 mm (0.057 in.)	6.0 mm (0.236 in.)	0.9 mm (0.034 in.)	802T-DTP	802T-DTP1																			
Side Push Vertical Roller	24.9 N (5.6 lb)	3.3 mm (0.131 in.)	5.7 mm (0.226 in.)	1.9 mm (0.074 in.)	802T-KTP	802T-KTP1																			
					Side Push Horizontal Roller	802T-K1TP	802T-K1TP1																		

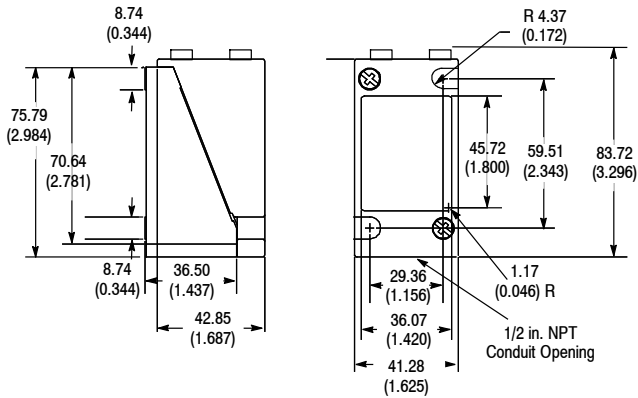
Modifications and Accessories—See page 5-53.

Limit Switches

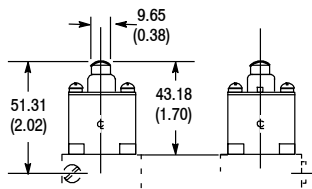
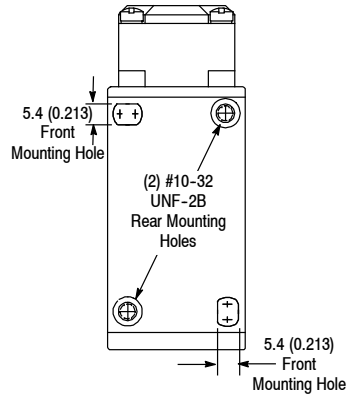
802T Push Type • Spring Return

Plug-in Style Oiltight Switches

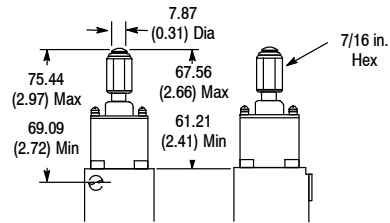
Approximate Dimensions [mm (in.)]



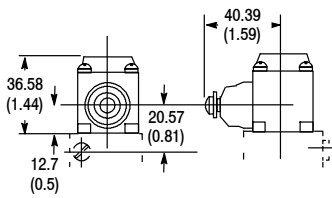
Switch Body



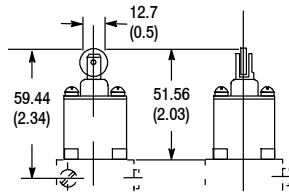
40146-013-59
Top Push Rod Head
Shipping Wt. 0.142 kg (5 oz)



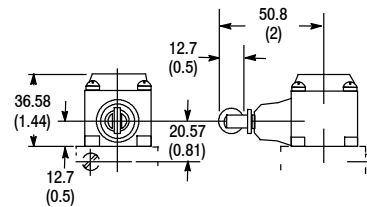
40146-013-65
Adjustable Top Push Rod Head
Shipping Wt. 0.142 kg (5 oz)



40146-017-63
Side Push Rod Head
Shipping Wt. 0.142 kg (5 oz)



40146-013-60
Top Push Roller Head
Shipping Wt. 0.142 kg (5 oz)

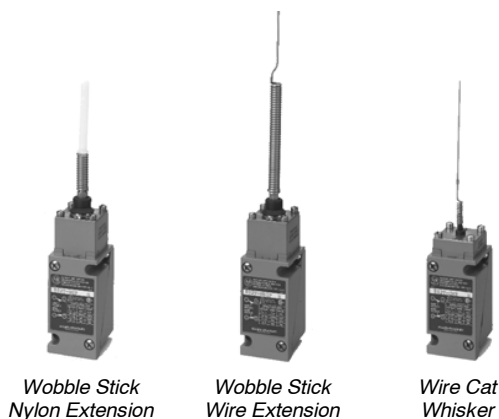
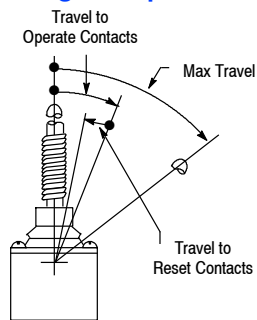


40146-017-64
Side Push Roller Head
Shipping Wt. 0.142 kg (5 oz)

Modifications and Accessories—See page 5-53.

802T Wobble Stick and Cat Whisker • Spring Return Plug-in Style Oiltight Switches

Range of Operation



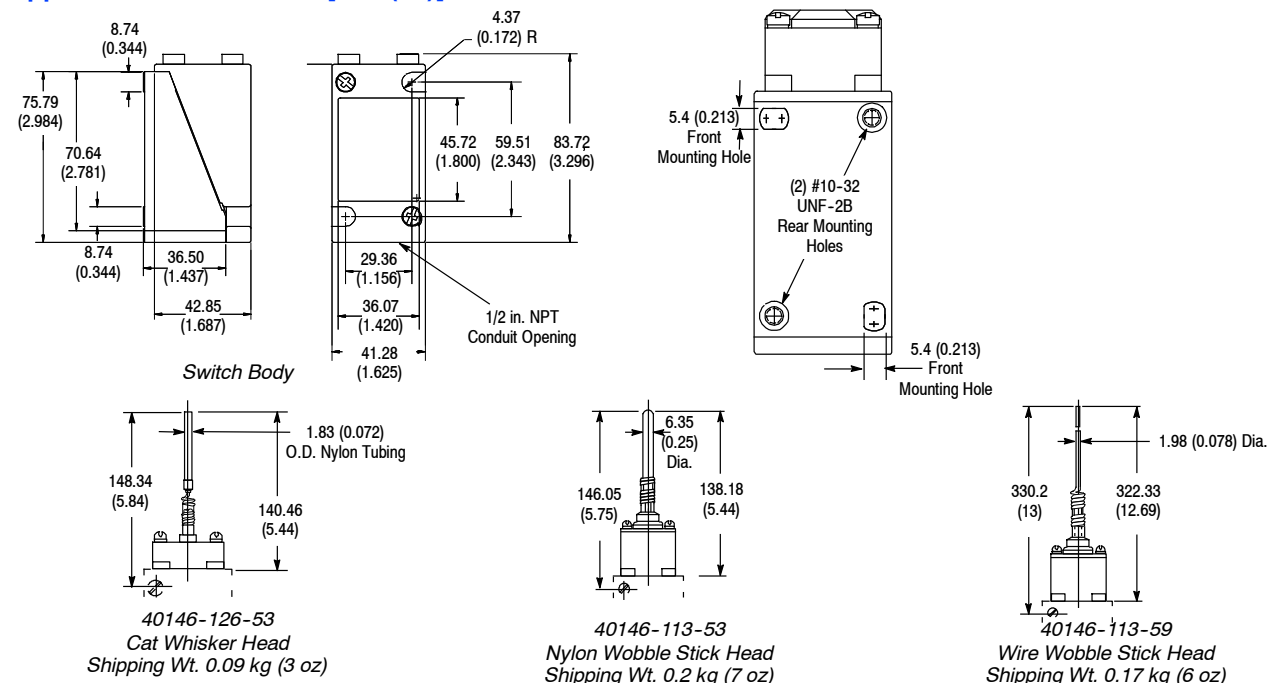
Product Selection

Operator Type	Contact Operation	Torque to Operate (Max.) ②	Travel to Operate Contacts (Max.) ②	Max Travel ②	Travel to Reset Contacts (Max.) ②	Cat. No.	
						Complete Switch	Switch Without Base
Nylon Wobble Stick		0.51 N•m (4.5 lb•in)	9°	10°	5°	802T-WSP	802T-WSP1
Wire Wobble Stick						802T-WS1P	802T-WS1P1
Wire Cat Whisker		0.06 N•m (8 oz•in)	21°	28°	14°	802T-CWP	802T-CWP1

① These switches should be mounted in such a way that the wobble stick or cat whisker will not be deflected beyond the "Maximum Travel" position, as this could cause undesirable repetition of contact action on rebound.

② Operating travels and torque are measured at rigid section of stick or cat whisker.

Approximate Dimensions [mm (in.)]



Modifications and Accessories—See page 5-53.



Description

Intended for direct connection to PLCs and other low energy circuits, the components and design of these low energy limit switches are optimized for long life.

The primary concern of low energy switching is contact contamination. Since low energy loads do not arc or burn the contacts clean, contaminants may cause erratic switch behavior. Rockwell Automation's low energy limit switches are designed with welded gold and silver alloy contacts to provide a protective barrier against surface oxides. A stationary waffle shape contact optimizes contact pressure to stabilize the contact resistance in the region of the micro load. A prism shaped crossbar contact provides high pressure to penetrate foreign particles which could prevent contact closure. These low energy limit switches are suitable for machine connectivity and low voltage facilities. They have a low input voltage of 5...28V DC with contact ratings of 0.025V A min. and 0.40V A max. per pole.

Bulletin 802T low energy limit switches are ideal for applications in which heavy duty pilot ratings, a high degree of versatility and a rugged NEMA Type 4, 13 and 6P rating are required. Similar to our full line of standard 802T plug-in style limit switches, our low energy limit switches exist in lever type spring return and push type spring return. Operating heads can be mounted in four positions, 90° apart.

Specifications

Certifications	UL Listed, CSA Certified and CE Marked for all applicable directives
Environmental	
Enclosure Type Rating	NEMA 4, 13, and 6P [Ⓜ]
Ambient Temperature [C (F)] [Ⓛ]	-18...+110° (0...+230°) -40...110° (-40...230°) low temp. model
Input Voltage	5...28V DC
DC Contact Rating	0.40V A load per pole max 0.025V A load per pole min

In today's age of low energy controls, electromechanical switches are more frequently interfacing directly with low energy circuits. Switching low energy loads presents a unique challenge. Rockwell Automation is perfectly situated to assist you with all your low energy switching needs.

Features

- Welded gold and silver alloy contacts provide a barrier against surface oxides
- Stationary waffle shape contact reduces the impact of contamination build-up
- Prism shaped crossbar contact provides high pressure to penetrate foreign particles which could prevent contact closure
- Snap-acting spanner replicates same reliability performance of our legacy NEMA products
- Lever type and push type operating styles
- Plug-in style for ease of wiring and conduit and mini-receptacle wiring options
- Enclosure rating NEMA 4, 13 and 6P[Ⓜ]
- UL Listed, CSA Certified and CE Marked for applicable directives
- 5...28V DC and 0.025V A min. and 0.40V A max. load per pole

Plug-in Style

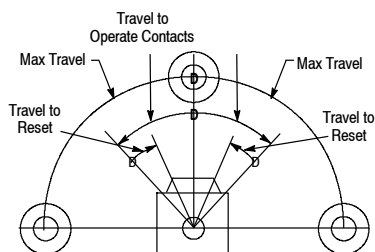
Lever Type • Spring Return page 5-49
Push Type • Spring Return . page 5-51

- Ⓛ Temperature range below 0°C (+32°F) is based on the absence of freezing moisture or water.
- Ⓜ 6P only applies to lever type, except low torque.

802T Low Energy Lever Type • Spring Return

Plug-in Style Oiltight Switches

Range of Operation



Switch without Lever

Product Selection—Standard and Low Operating Torque Models

No. of Circuits	Contact Operation for Clockwise or Counterclockwise Movement	Max. Torque to Operate [N•m (lb•in.)]	Max. Travel to Operate (degrees)	Maximum Travel (degrees)	Max. Travel to Reset (degrees)	Switch Type	Cat. No.
							Switch w/o Lever
2		0.29 (2.6)	13	90	7	Conduit	802T-AGP
All low energy limit switches are designed to operate in an ambient temperature of -18...110°C (0...230°F). This 802T-AGPE limit switch is modified for low temperature operation at -40...110°C (-40...230°F). All other specifications are identical to the 802T-AGP.						Conduit/Low Temp.	802T-AGPE
Identical to 802T-AGP but with pre-wired five-pin mini connector.						Mini Connector	802T-AGPJ1 ①
2		0.106 (1.3) max.	13	90	7	Conduit/Low Torque	802T-ALGP

① Recommended standard cordset is 889N-F5AFC-6F—straight female 5-pin mini to flying leads, 1.8 m (6 ft) long. For additional cable lengths or styles, see page 8-4.

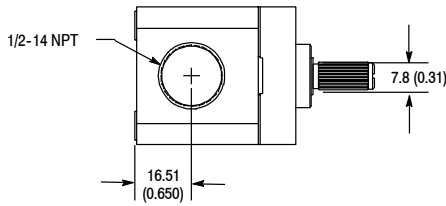
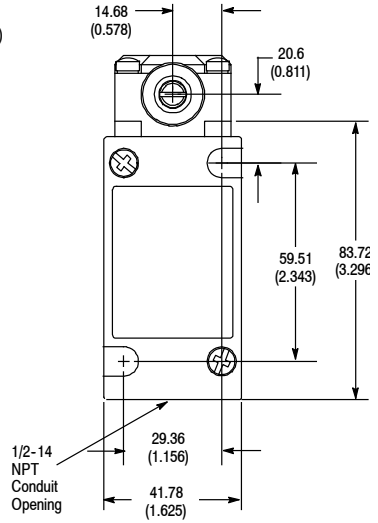
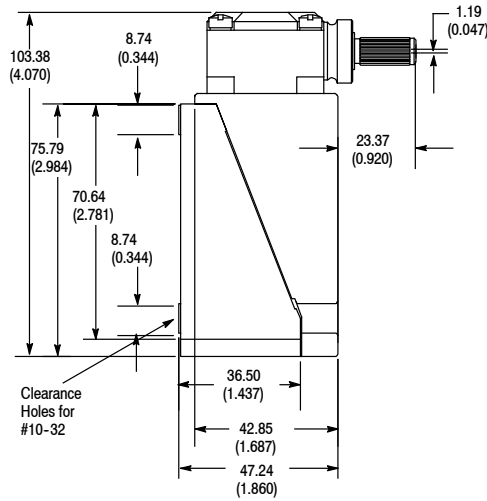
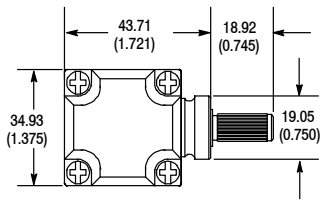
Levers—See page 5-130 for a complete listing of operating levers.

Limit Switches

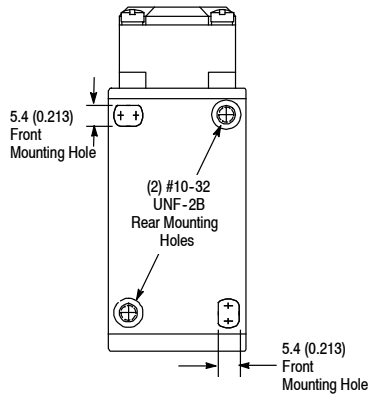
802T Low Energy Lever Type • Spring Return

Plug-in Style Oiltight Switches

Approximate Dimensions [mm (in.)]



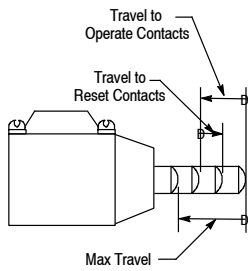
Plug-In Switch
Shipping Wt.
0.571 kg (1.25 lb)



802T Low Energy Push Type • Spring Return

Plug-in Style Oiltight Switches

Range of Operation



Side Push Rod



Top Push Roller



Side Push Vertical Roller

Product Selection

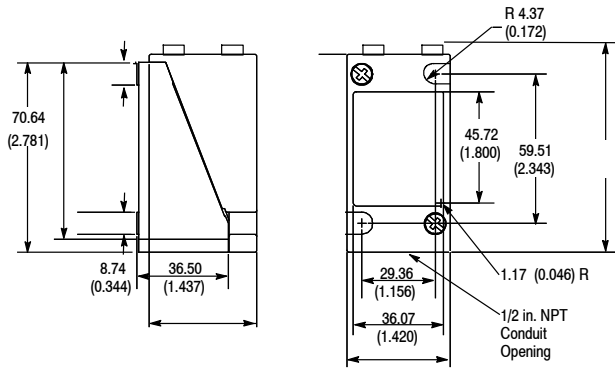
No. of Circuits	Contact Operation		Operator Type	Force to Operate [N•m(lb)]	Travel to Operate [mm (in.)]	Maximum Travel [mm (in.)]	Travel to Reset [mm (in.)]	Cat. No.
	Normal	Operated						
2	<pre> 1 ○ ○ 2 3 ○ ○ 4 </pre>	<pre> 1 ○ ○ 2 3 ○ ○ 4 </pre>	Side Push Rod	16.4 (3.68) max.	3.3 (0.131) max.	5.7 (0.226)	1.3 (0.052) max.	802T-CGP
			Top Push Roller	13.8 (3.1) max.	1.4 (0.057) max.	6.0 (0.236)	0.7 (0.028)	802T-DGP
			Side Push Vertical Roller	16.4 (3.68) max.	3.3 (0.131) max.	5.7 (0.226)	1.3 (0.052) max.	802T-KGP

Limit Switches

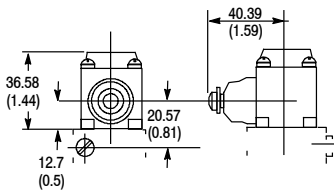
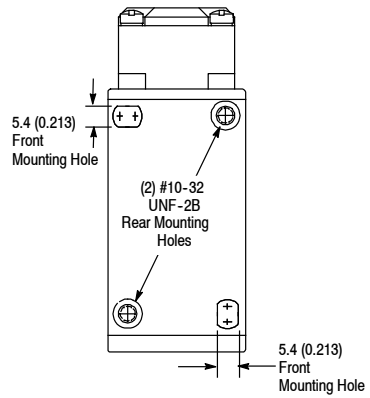
802T Low Energy Push Type • Spring Return

Plug-in Style Oiltight Switches

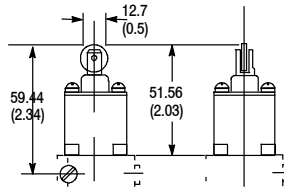
Approximate Dimensions [mm (in.)]



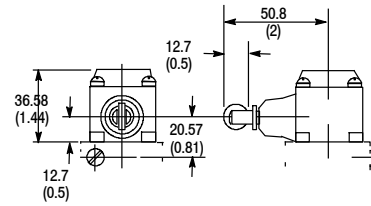
Switch Body



40146-017-63
Side Push Rod Head
Shipping Wt. 0.142kg (5oz)



40146-013-60
Top Push Roller Head
Shipping Wt. 0.142kg (5oz)



40146-017-64
Side Push Roller Head
Shipping Wt. 0.142kg (5oz)

802T Modifications and Accessories

Plug-in Style Oiltight Switches



Manifold Mount

All two-circuit plug-in limit switches can be supplied with a special terminal base which permits mounting the switch manifold style on a machine base, panel or raceway. As shown above, this base is supplied with a wiring hole and gasket on the back.

To order a manifold mount switch, add the letter **U** to the listed cat. no..
Example: Cat. No. 802T-AP becomes Cat. No. 802T-APU.

Indicating Light

Bulletin 802T two-circuit plug-in limit switches (except for the cat whisker, wobble stick, and manifold mount devices) can be supplied with an indicating light. To order add the letter **N** for 120V AC, 50/60 Hz or **N5** for 240V AC 50/60 Hz. Example: Cat. No. 802T-AP becomes Cat. No. 802T-APN.

The indicating light is internally connected to two isolated terminals in the base assembly allowing the user to wire the light to either the N.O. or the N.C. contact. Switches with an indicating light have a contact rating of NEMA A300.

Where an indicator light and a pre-wired 5-pin mini connector are used, the light is pre-wired to the N.C. contact with J1 wiring and to the N.O. contact with J9 wiring. Indicating lights are not available on 4-circuit 802T switches.

Fluorinated Elastomer Seals

To order limit switches with all fluorinated elastomer seals, add the letter **V** to the end of the listed cat. no. Not available on manifold mount, low operating torque, low temperature or limit switches with an indicating light.

To order lever type limit switches with the fluorinated elastomer shaft seal only, add **V1** to the end of the listed cat. no.

Base Assembly

The limit switch base, including the terminal block, is available as a separate unit per the following table.

	Cat. No.
2-Circuit Base	802T-X7
2-Circuit Base with Indicating Light	802T-X7 N
2-Circuit Manifold Mount Base	802T-X7U
4-Circuit Base	802T-X8

Low Temperature Operation

Plug-in limit switches are designed to operate in an ambient temperature range of -18...+110°C (0...+230°F), -18...+54°C (0...+130°F) for wobble stick and cat whisker. Special limit switches modified for low temperature operation at -40...+110°C (-40...+230°F) are available. Temperature ranges below 0°C (+32°F) are based on absence of freezing moisture or water. To order, add the letter **E** to cat. no. **Not available** on wobble stick, cat whisker or pre-wired cable switches; standard on low torque and maintained devices.

Pre-Wired Cable

To order factory installed pre-wired type "**STOOW-A**" cable for 2-circuit (5-conductor) and 4-circuit (9-conductor) switches, add the suffix **Y** plus the number of feet required. Example: To order an 802T-AP with 2.4 m (5 ft) of cable the cat. no. would become 802T-APY5.

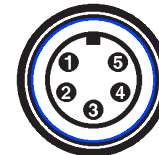
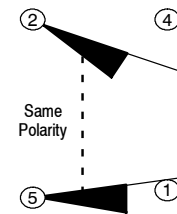
The standard cable length is 2.4 m (5 ft). Extended cable lengths are available in multiples of 1.22 m (4 ft) only.

Mini-Type Receptacles

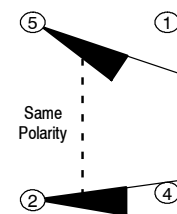
To order a bulletin 802T pre-wired limit switch with a five-pin (2 circuit) or nine pin (4 circuit) mini connector, add the suffix **J1** or **J9** depending on desired wiring (J9 wiring not available for 4-circuit models).

5-Pin Mini-Type Receptacle

"J1" Wiring



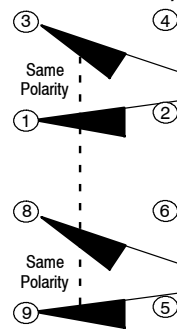
"J9" Wiring



An appropriate female connector with cable (889N-F5AFC-6F) is available on page 8-4 in Connection Systems.

9-Pin Mini-Type Receptacle

"J1" Wiring ("J9" wiring not available for 4 circuit)



An appropriate female connector with cable (889N-F9AF-2) is available on page 8-14 in Connection Systems.

802T

NonPlug-in Style Oiltight Switches



Description

Bulletin 802T limit switches are ideal for applications in which heavy duty pilot ratings, small size, a high degree of versatility and a rugged NEMA Type 13 oiltight construction are desirable. An important factor in the automation of industry, these limit switches are being applied extensively on conveyor systems, transfer machines, automatic turret lathes, milling and boring machines, radial drills, and many other types of modern, high speed production equipment.

A wide variety of operating heads and operating levers are available. Operating heads can be mounted in four positions, 90° apart.

Features

- Side rotary, wobble stick, cat whisker, adjustable top and top or side push styles, with or without rollers
- Rugged construction
- Proven reliability

Specifications

Enclosure Rating	NEMA 13, IP54
Pollution Degree	3
Certifications	UL Listed, CSA Certified and CE Marked for applicable directives
Ambient Temperature [C (F)] ❶	Nonplug-in limit switches are designed to operate in an ambient temperature range of -18...+54° (0...+130°).

AC Contact Rating (Maximum per Pole, 50 or 60 Hz, Same Polarity)

NEMA Rating Designation	Max Voltage	A		Continuous Carrying Current	VA	
		Make	Break		Make	Break
A600 AC-15	120	60	6.00	10	7200	720
	240	30	3.00	10	7200	720
	480	15	1.50	10	7200	720
	600	12	1.20	10	7200	720

DC Contact Rating (Maximum per Pole, Same Polarity)

Voltage Range	Current Rating
115-125	0.4 A
230-250	0.2 A
550-600	0.1 A

❶ Temperature range below 0° C (+32° F) is based on the absence of freezing moisture or water. See page 5-73 for Extended Temperature Option.

NonPlug-in Style

2-Circuit

Lever Type • Spring Return page 5-55
Standard and Low Operating Torque Models

Lever Type with DeviceNet Output • Spring Return page 10-15

Lever Type • Maintained ... Contact and Neutral Position page 5-56

Lever Type with Time Delay • Spring Return (1-Circuit) page 5-57

Push Type • Spring Return and Maintained Contact page 5-59

Wobble Stick and Cat Whisker • Spring Return page 5-61

4-Circuit Vertical Construction

Lever Type • Spring Return & Maintained Contact page 5-62

Push Type • Spring Return & Maintained Contact page 5-63

Wobble Stick and Cat Whisker • Spring Return page 5-65

4-Circuit Horizontal Construction

Lever Type • Spring Return page 5-66
Lever Type • Maintained ... Contact page 5-67

Push Type • Spring Return & Maintained Contact page 5-68

Wobble Stick & Cat Whisker • Spring Return page 5-70

Dual Switch Lever and Push Types • Spring Return page 5-71

Air-Operated • Spring Return page 5-72

Modifications and Accessories page 5-73

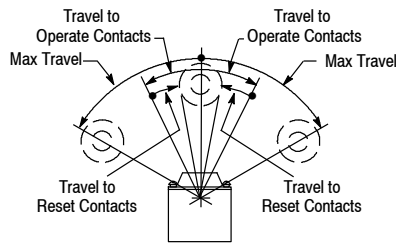
Operating Levers

Lever Selection page 5-130

802T 2-Circuit Lever Type • Spring Return

NonPlug-in Style Oiltight Switches

Range of Operation



Lever Operation with Standard Levers

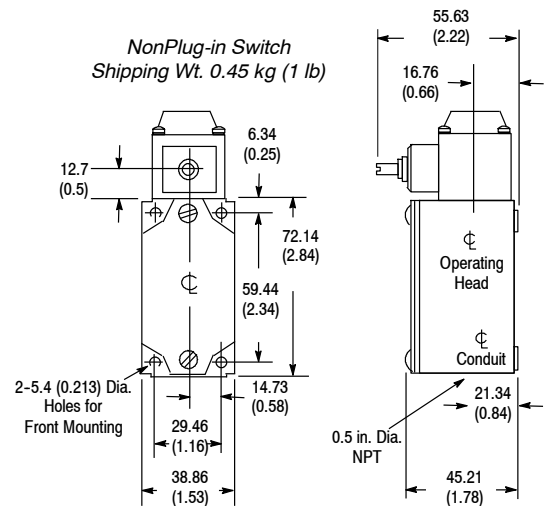


802T-A



802T-ALW5

Approximate Dimensions [mm (in.)]



Product Selection—Standard and Low Operating Torque Models

Lever Movement vs. Contact Operation	Torque to Operate (Max.)	Travel to Operate Contacts (Max.)	Max Travel	Travel to Reset Contacts (Max.)	Cat. No.
Clockwise or Counterclockwise 	0.34 N•m (3 lb•in)	16.5°	43°	8°	802T-A
	0.51 N•m (4.5 lb•in)	6°	50°	3°	802T-H
Clockwise 	0.40 N•m (3.5 lb•in)	16.5°	43°	8°	802T-A1
	0.51 N•m (4.5 lb•in)	6.5°	50°	3°	802T-H1
Counterclockwise 	0.40 N•m (3.5 lb•in)	16.5°	43°	8°	802T-A2
	0.51 N•m (4.5 lb•in)	6.5°	50°	3°	802T-H2
Clockwise Lever cannot move counterclockwise 	0.45 N•m (4 lb•in)	20°	91°	11°	802T-L1
Counterclockwise Lever cannot move clockwise 					802T-L2
Clockwise or Counterclockwise 	0.09 N•m (12.5 oz•in)	22°	43°	12°	802T-ALW5
Clockwise 					802T-AL1W5
Counterclockwise 					802T-AL2W5

ⓘ These low operating torque limit switches can only be supplied with cat. no. 802T-W5 rod lever. The rod can easily be formed to meet special application requirements.

Levers—See page 5-130 for a complete listing of operating levers.

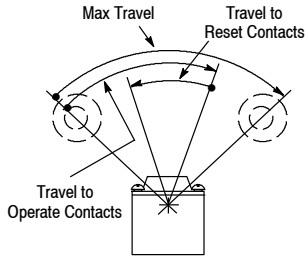
Modifications and Accessories—See page 5-73.

Limit Switches

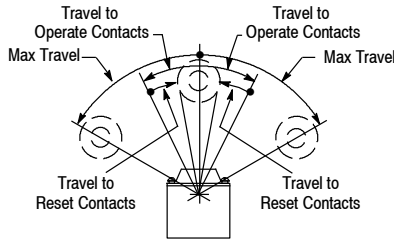
802T 2-Circuit Lever Type • Maintained Contact and Neutral Position

NonPlug-in Style Oiltight Switches

Range of Operation



Maintained Contact Models



Neutral Position Models



802T-AM



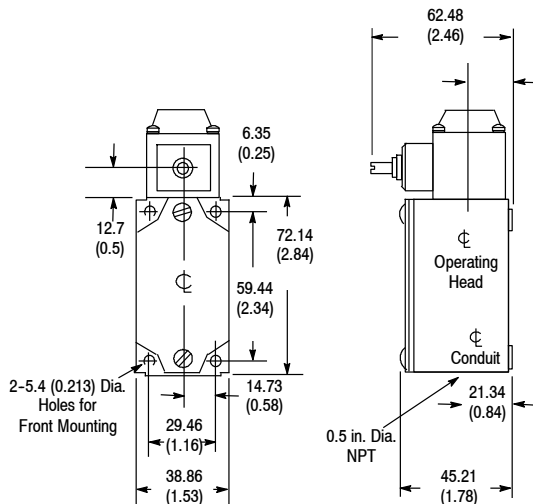
802T-NP

Product Selection

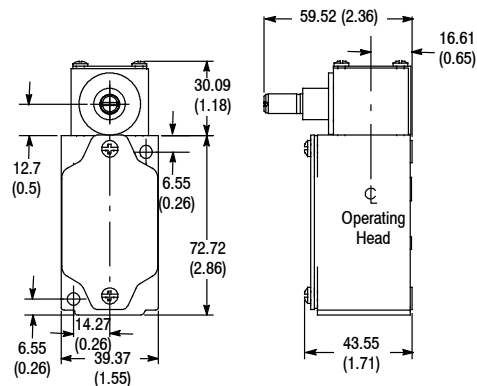
Contact Type	Lever Movement vs. Contact Operation	Torque to Operate (Max.)	Travel to Operate Contacts (Max.)	Max Travel	Travel to Reset Contacts (Max.)	Cat. No.
Maintained		0.25 N•m (2.25 lb•in)	70°	84°	50°	802T-AM
Neutral Position			12°	53°	6°	802T-NP

From one maintained position to the other.

Approximate Dimensions [mm (in.)]



NonPlug-in Switch
Shipping Wt. 0.45 kg (1 lb)
802T-AM



NonPlug-in Switch
Shipping Wt. 0.45 kg (1 lb)
802T-NP

Levers—See page 5-130 for a complete listing of operating levers.

Modifications and Accessories—See page 5-73.

802T 1-Circuit Lever Type with Time Delay • Spring Return NonPlug-in Style Oiltight Switches



802T-R1TD with 802T-W1 Lever

Product Selection

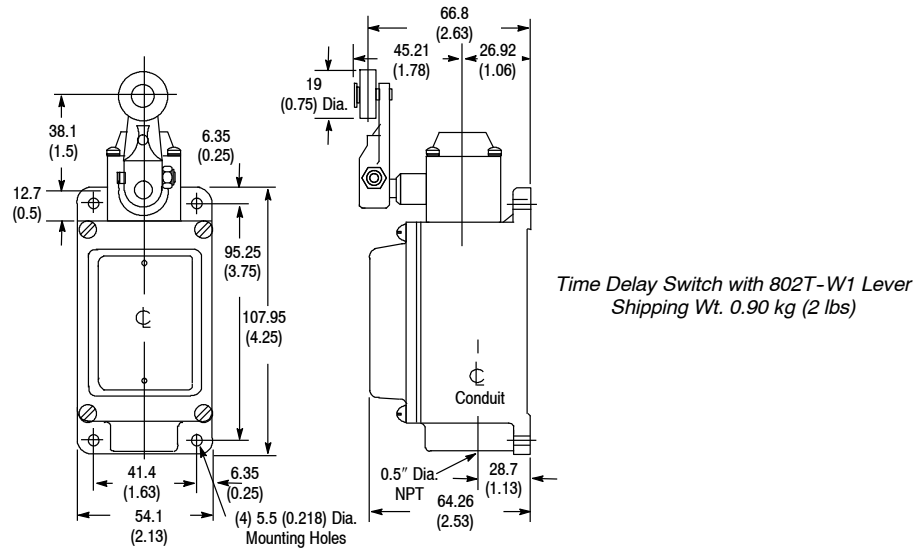
Lever Movement vs. Contact Operation [ⓐ]		Torque to Operate (Max.)	Travel to Operate Contact (Max.)	Overtravel	Max Travel	Cat. No.	
						On-Delay [ⓑ] [Ⓒ] [Ⓓ]	Off-Delay [Ⓔ] [Ⓕ]
Clockwise Lever cannot move counterclockwise		0.23 N•m (2 lb•in)	45° [ⓐ]	45° [ⓐ]	Approx. 90°	802T-R1TD	802T-R7TD
						802T-R3TD	802T-R5TD
Counterclockwise Lever cannot move clockwise						802T-R2TD	802T-R8TD
						802T-R4TD	802T-R6TD

- ⓐ Required for Timing Accuracy.
- ⓑ The time delay is adjustable from 0.5...15 seconds ± 25%.
- Ⓒ Contacts are rated for 3 A, 120V AC maximum.
- Ⓓ The lever travel must be faster than the timing setting.
- Ⓔ Time delay occurs after lever is moved to operated position
- Ⓕ Time delay occurs after lever is moved from operated to normal position

802T

NonPlug-in Style Oiltight Switches

Approximate Dimensions [mm (in.)]

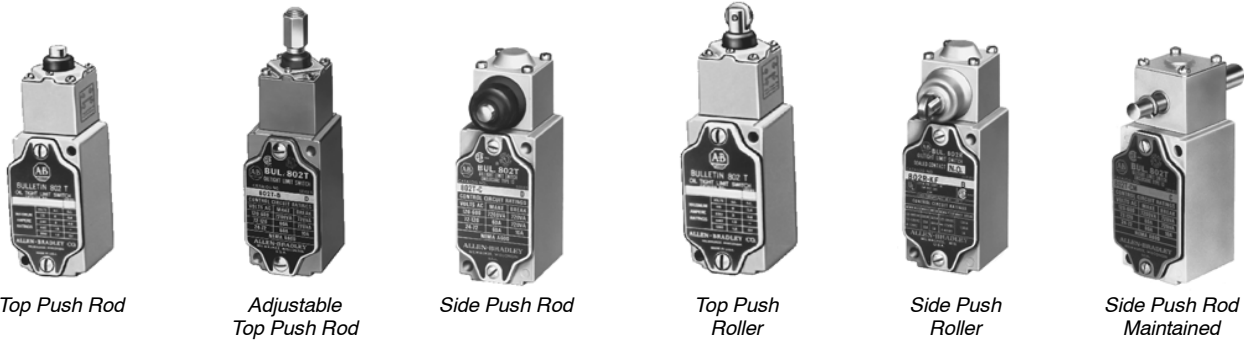


Levers—See page 5-130 for a complete listing of operating levers.

Modifications and Accessories—See page 5-73.

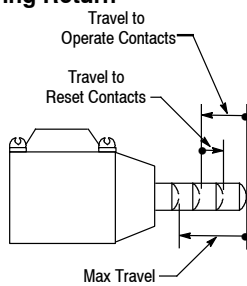
802T 2-Circuit Push Type • Spring Return and Maintained Contact

NonPlug-in Style Oiltight Switches

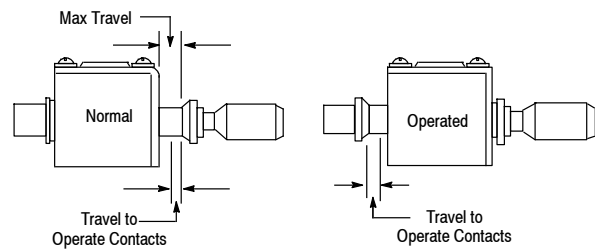


Range of Operation

Spring Return



Maintained



Product Selection

Operator Type	Contact Operation		Force to Operate (Max.)	Travel to Operate Contacts (Max.)	Max Travel	Travel to Reset Contacts (Max.)	Cat. No.
	Normal	Operated					
Top Push Rod							802T-B
Adjustable Top Push Rod	1 ○ ○ 2 3 ○ ○ 4	1 ○ ○ 2 3 ○ ○ 4	15.6 N (3.5 lb)	1.9 mm (0.075 in.)	5.1 mm (0.202 in.)	0.8 mm (0.030 in.)	802T-BA
Top Push Roller							802T-D
Side Push Rod							802T-C
Side Push Vertical Roller							802T-K
Side Push Horizontal Roller	1 ○ ○ 2 3 ○ ○ 4	1 ○ ○ 2 3 ○ ○ 4	20.0 N (4.5 lb)	3.2 mm (0.125 in.)	5.5 mm (0.218 in.)	1.5 mm (0.057 in.)	802T-K1
Maintained Contact Side Push Rod			35.6 N (8 lbs)	4.87 mm (0.192 in.) Nominal	5.96 mm (0.235 in.)	5.30 mm (0.209 in.) Nominal	802T-CM

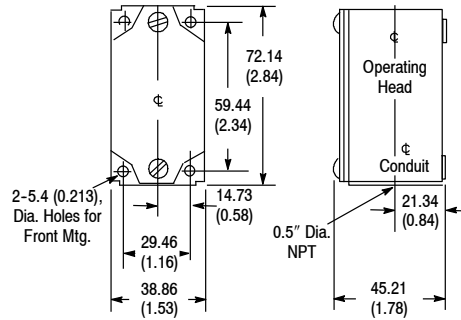
Modifications and Accessories—See page 5-73.

Limit Switches

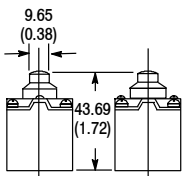
802T 2-Circuit Push Type • Spring Return and Maintained Contact

NonPlug-in Style Oiltight Switches

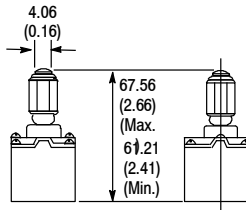
Approximate Dimensions [mm (in.)]



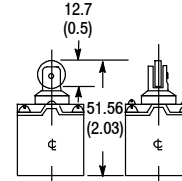
*NonPlug-in Switch
Shipping Wt. 0.45 kg (1 lb)*



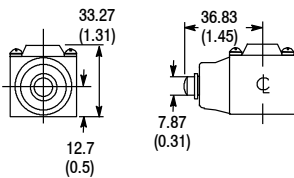
*802T-B Top Push Rod Head
Shipping Wt. 0.128 kg (4.5 oz)*



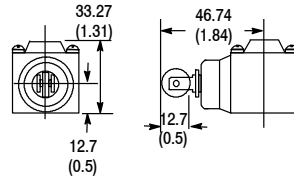
*802T-BA Adjustable
Top Push Rod Head
Shipping Wt. 0.128 kg (4.5 oz)*



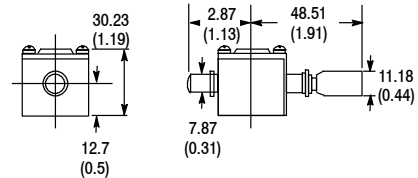
*802T-D Top Push Roller Head
Shipping Wt. 0.128 kg (4.5 oz)*



*802T-C Side Push Rod Head
Shipping Wt. 0.128 kg (4.5 oz)*



*802T-K Side Push Roller Head
Shipping Wt. 0.128 kg (4.5 oz)*



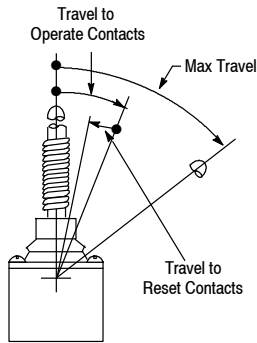
*802T-CM Maintained Side Push Rod Head
Shipping Wt. 4.5 oz (0.128 kg)*

Modifications and Accessories—See page 5-73.

802T 2-Circuit Wobble Stick and Cat Whisker • Spring Return

NonPlug-in Style Oiltight Switches

Range of Operation



Wobble Stick
Nylon Extension



Wobble Stick
Wire Extension



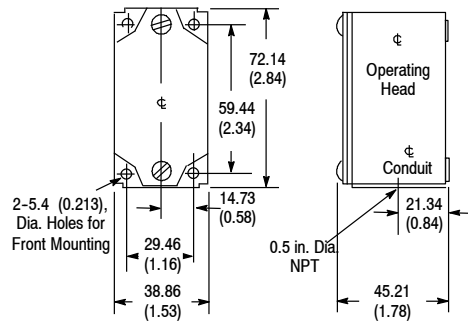
Cat Whisker

Product Selection

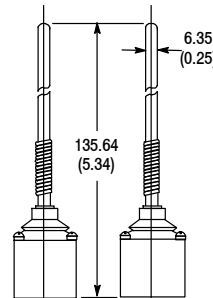
Operator Type	Contact Operation	Torque to Operate (Max.) ^①	Travel to Operate Contacts (Max.) ^①	Max Travel ^①	Travel to Reset Contacts (Max.) ^①	Cat. No.
Nylon Wobble Stick		0.51 N•m (4.5 lb•in)	9°	10°	4°	802T-WS
Wire Wobble Stick						802T-WS1
Wire Cat Whisker		0.06 N•m (8 oz•in)	21°	22°	14°	802T-CW

① Operating travels and torque are measured at rigid section of stick or cat whisker.

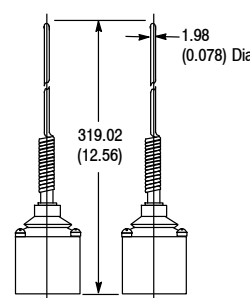
Approximate Dimensions [mm (in.)]



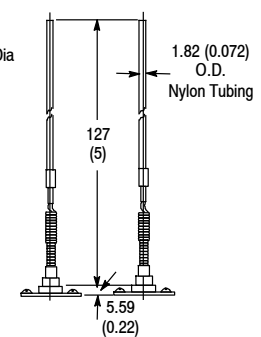
NonPlug-in Switch
Shipping Wt.
0.45 kg (1 lb)



Z-18210 Nylon
Wobble Stick Head
Shipping Wt.
0.128 kg (4.5 oz)



Z-18211 Wire
Wobble Stick Head
Shipping Wt.
0.149 kg (5.25 oz)



Z-25142
Cat Whisker Head
Shipping Wt.
0.028 kg (1 oz)

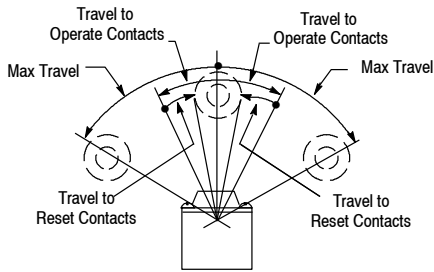
Modifications and Accessories—See page 5-73.

Limit Switches

802T Vertical 4-Circuit Push Type • Spring Return & Maintained Contact

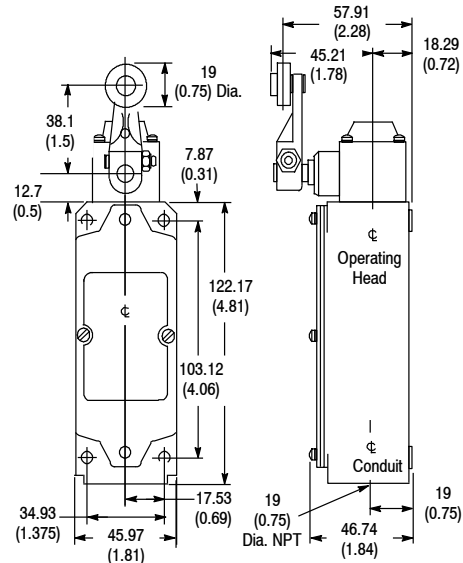
NonPlug-in Style Oiltight Switches

Range of Operation



Switch Without Lever

Approximate Dimensions [mm (in.)]



4 Circuit NonPlug-in Switch with 802T-W1 Lever
Shipping Wt. 0.57 kg (1.25 lb)

Product Selection

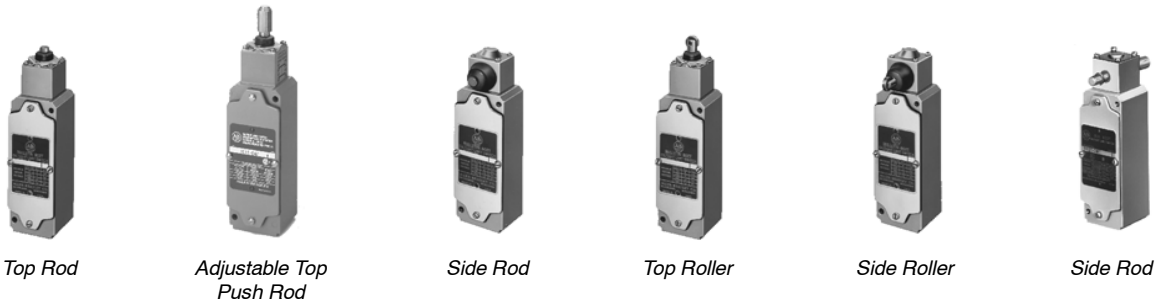
Lever Movement vs. Contact Operation		Torque to Operate (Max.)	Travel to Operate Contacts (Max.)	Max Travel	Travel to Reset Contacts (Max.)	Cat. No.
Clockwise or Counterclockwise		0.34 N•m (3 lb•in)	18°	42°	14°	802T-AT
		0.68 N•m (6 lb•in)	9°	50°	6°	802T-HT
Clockwise		0.40 N•m (3.5 lb•in)	18°	42°	14°	802T-A1T
		0.68 N•m (6 lb•in)	9°	50°	6°	802T-H1T
Counterclockwise		0.40 N•m (3.5 lb•in)	18°	42°	14°	802T-A2T
		0.68 N•m (6 lb•in)	9°	50°	6°	802T-H2T
Clockwise Lever cannot move counterclockwise		0.45 N•m (4 lb•in)	28°	91°	18°	802T-L1T
Counterclockwise Lever cannot move clockwise		0.45 N•m (4 lb•in)	28°	91°	18°	802T-L2T
Maintained Contact Clockwise or Counterclockwise		0.34 N•m (3 lb•in)	75°	84° From one maintained position to the other	50°	802T-AMT

Levers—See page 5-130 for a complete listing of operating levers.

Modifications and Accessories—See page 5-73.

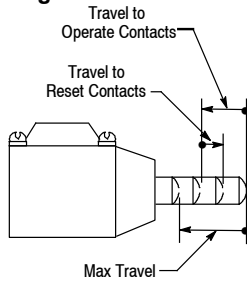
802T Vertical 4-Circuit Push Type • Spring Return & Maintained Contact

NonPlug-in Style Oiltight Switches

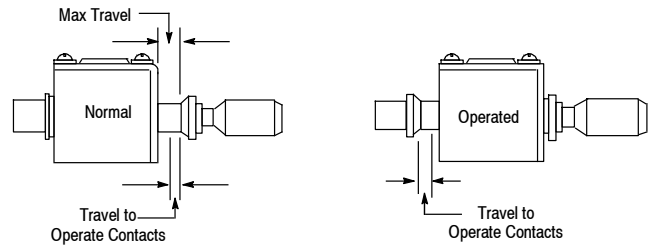


Range of Operation

Spring Return



Maintained



Product Selection

Operator Type	Contact Operation		Force to Operate (Max.)	Travel to Operate Contacts (Max.)	Max Travel	Travel to Reset Contacts (Max.)	Catalog Number ❶			
	Normal	Operated								
Top Push Rod	1 ○ ○ 2	1 ○ ○ 2	24.4 N (5.5 lb)	3.6 mm (0.140 in.)	6.0 mm (0.234 in.)	1.6 mm (0.062 in.)	802T-BT			
Adjustable Top Push Rod	3 ○ ○ 4	3 ○ ○ 4					802T-BAT			
Side Push Rod	5 ○ ○ 6	5 ○ ○ 6	28.9 N (6.5 lb)			2.4 mm (0.094 in.)	802T-CT			
	7 ○ ○ 8	7 ○ ○ 8					802T-DT			
Top Push Roller	1 ○ ○ 2	1 ○ ○ 2	24.4 N (5.5 lb)			1.6 mm (0.062 in.)	802T-KT			
Side Push Vertical Roller	3 ○ ○ 4	3 ○ ○ 4						28.9 N (6.5 lb)	2.4 mm (0.094 in.)	802T-K1T
Side Push Horizontal Roller	5 ○ ○ 6	5 ○ ○ 6								62.2 N (14 lb)
Maintained Contact Side Push Rod	7 ○ ○ 8	7 ○ ○ 8								

❶ These devices are not available with fluorinated elastomer seals or neon indicating lights.

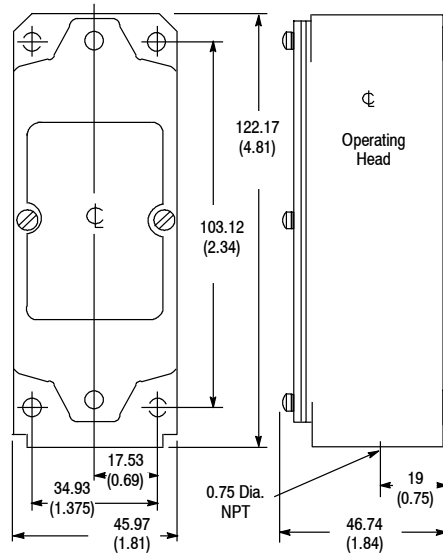
Modifications and Accessories—See page 5-73.

Limit Switches

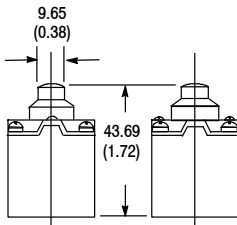
802T Vertical 4-Circuit Push Type • Spring Return & Maintained Contact

NonPlug-in Style Oiltight Switches

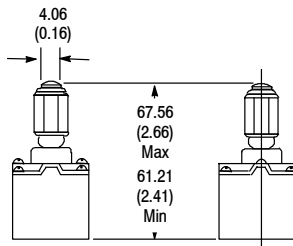
Approximate Dimensions [mm (in.)]



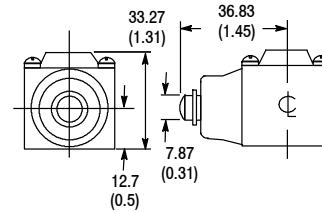
NonPlug-in Switch
Shipping Wt. 0.57 kg (1.25 lb)



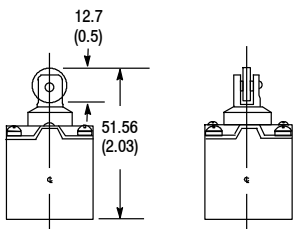
802T-BT
Top Push Rod Head
Shipping Wt. 0.128 kg (4.5 oz)



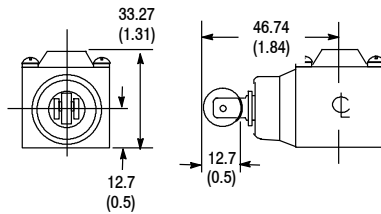
Adjustable Top Push Rod Head
for 802T-BAT
Shipping Wt. 0.128 kg (4.5 oz) **❶**



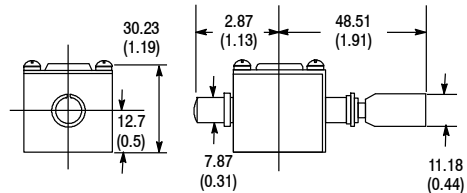
802T-CT
Side Push Rod Head
Shipping Wt. 0.128 kg (4.5 oz)



802T-DT
Top Push Roller Head
Shipping Wt. 0.128 kg (4.5 oz)



802T-KT
802T-K1T
Side Push Roller Head
Shipping Wt. 0.128 kg (4.5 oz)



802T-CMT
Maintained Side Push Rod Head
Shipping Wt. 0.128 kg (4.5 oz)

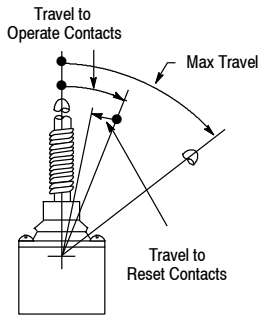
❶ Not a saleable item.

Modifications and Accessories—See page 5-73.

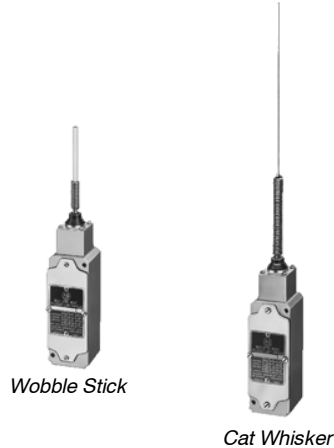
802T Vertical 4-Circuit Wobble Stick and Cat Whisker • Spring Return

NonPlug-in Style Oiltight Switches

Range of Operation



Travels Are Measured at Rigid Section of Stick or Whisker

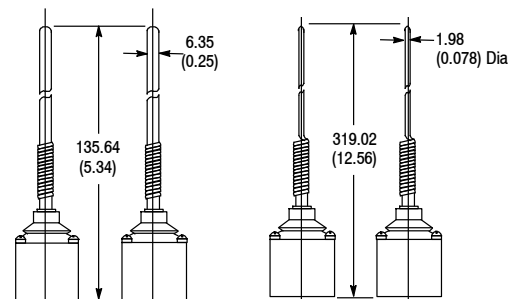
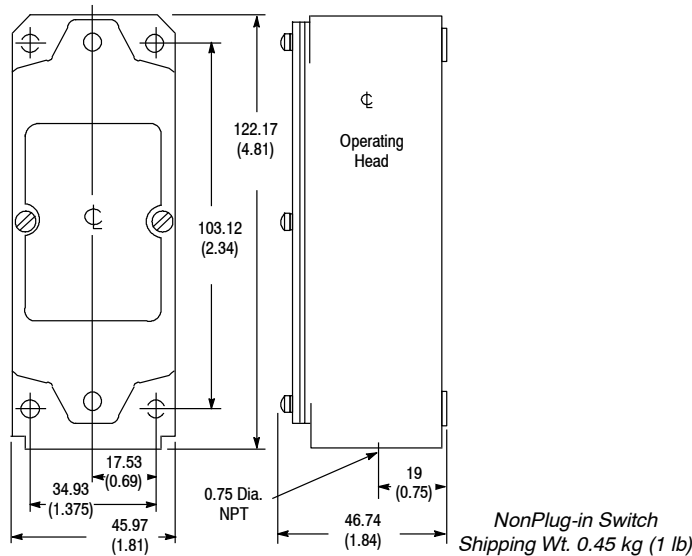


Product Selection

Operator Type	Contact Operation	Torque to Operate (Max.)	Travel to Operate Contacts (Max.)	Max Travel \ominus	Travel to Reset Contacts (Max.)	Cat. No.
Nylon Wobble Stick		0.79 N•m (7 lb•in)	12°	12°	9°	802T-WST
Wire Cat Whisker						802T-WS1T

⊖ These switches should be mounted in such a way that the wobble stick or cat whisker will not be deflected beyond the "Maximum Travel" position, as this could cause undesirable repetition of contact action on rebound.

Approximate Dimensions [mm (in.)]



Z-18210 Nylon Wobble Stick Head
Shipping Wt. 0.128 kg (4.5 oz)

Z-18211 Wire Wobble Stick Head
Shipping Wt. 0.149 kg (5.25 oz)

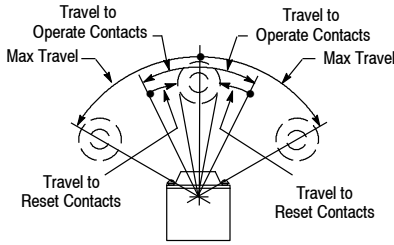
Modifications and Accessories—See page 5-73.

Limit Switches

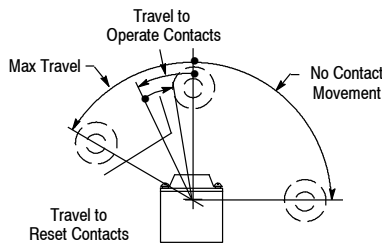
802T Horizontal 4-Circuit Lever Type • Spring Return

NonPlug-in Style Oiltight Switches

Range of Operation



Lever Operation When Standard Levers Are Used



Lever Operation When 802T-W7 and W8 "One-Way" Levers Are Used

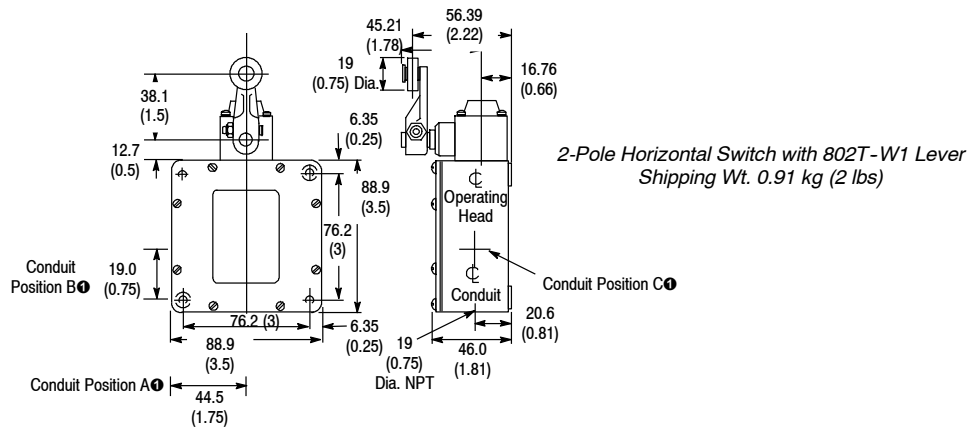


Switch Without Lever

Product Selection

Lever Movement vs. Contact Operation		Torque to Operate (Max.)	Travel to Operate Contacts (Max.)	Max Travel	Travel to Reset Contacts (Max.)	Cat. No.
Clockwise or Counterclockwise		0.34 N•m (3 lb•in)	14°	42°	8°	802T-ATH
		0.68 N•m (6 lb•in)	6°	50°	3°	802T-HTH
Clockwise		0.39 N•m (3.5 lb•in)	14°	42°	8°	802T-A1TH
		0.68 N•m (6 lb•in)	6°	50°	3°	802T-H1TH
Counterclockwise		0.39 N•m (3.5 lb•in)	14°	42°	8°	802T-A2TH
		0.68 N•m (6 lb•in)	6°	50°	3°	802T-H2TH
Clockwise Lever cannot move counterclockwise		0.45 N•m (4 lb•in)	20°	91°	11°	802T-L1TH
Counterclockwise Lever cannot move clockwise						802T-L2TH

Approximate Dimensions [mm (in.)]



●Conduit positions for modifications S1, S2, S3

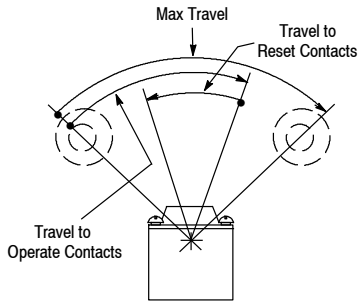
Levers—See page 5-130 for a complete listing of operating levers.

Modifications and Accessories—See page 5-73.

802T Horizontal 4-Circuit Lever Type • Maintained Contact

NonPlug-in Style Oiltight Switches

Range of Operation

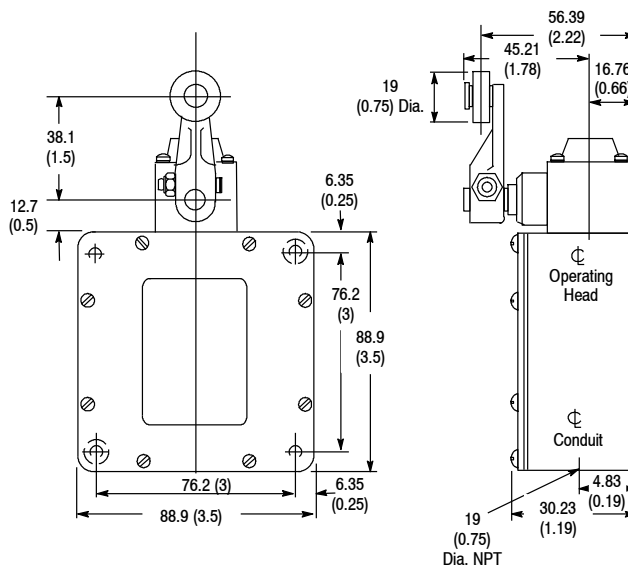


Switch Without Lever

Product Selection

Lever Movement vs. Contact Operation		Torque to Operate (Max.)	Travel to Operate Contacts (Max.)	Max Travel	Travel to Reset Contacts (Max.)	Cat. No.
Clockwise or Counterclockwise		0.34 N•m (3 lb•in)	70°	84° From one maintained position to the other	35°	802T-AMTH

Approximate Dimensions [mm (in.)]



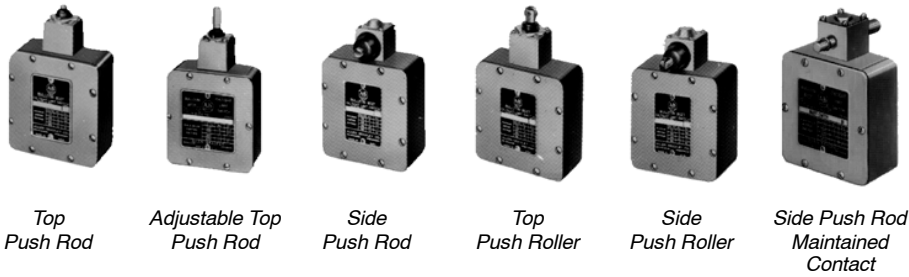
2-Pole Horizontal Switch with 802T-W1 Lever
Shipping Wt. 0.91 kg (2 lb)

Levers—See page 5-130 for a complete listing of operating levers.

Modifications and Accessories—See page 5-73.

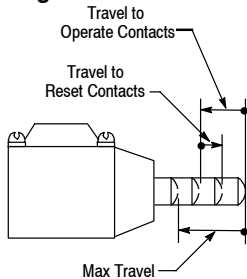
Limit Switches

802T Horizontal 4-Circuit Push Type • Spring Return & Maintained Contact NonPlug-in Style Oiltight Switches

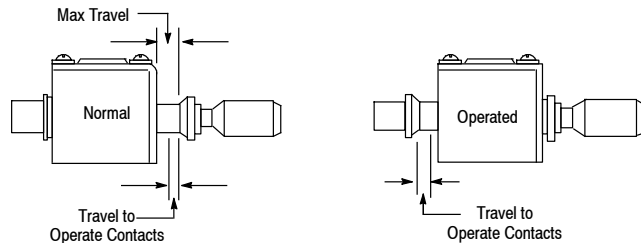


Range of Operation

Spring Return



Maintained



Product Selection

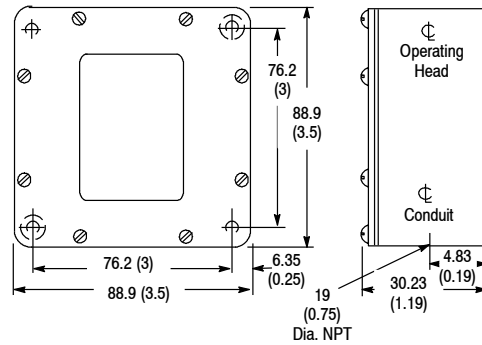
Operator Type	Contact Operation		Force to Operate (Max.)	Travel to Operate Contacts (Max.)	Max Travel	Travel to Reset Contacts (Max.)	Cat. No.
	Normal	Operated					
Top Push Rod			24.4 N (5.5 lbs)	2.4 mm (0.094 in.)	5.9 mm (0.234 in.)	1.2 mm (0.046 in.)	802T-BTH
Adjustable Top Push Rod	1 ○ 2 5 ○ 6 3 ○ 4 7 ○ 8	1 ○ 2 5 ○ 6 3 ○ 4 7 ○ 8					802T-BATH
Top Push Roller							802T-DTH
Side Push Rod							802T-CTH
Side Push Vertical Roller							802T-KTH
Side Push Horizontal Roller	1 ○ 2 5 ○ 6 3 ○ 4 7 ○ 8	1 ○ 2 5 ○ 6 3 ○ 4 7 ○ 8					802T-K1TH
Maintained Contact Side Push Rod			62.2 N (14 lbs)	4.87 mm (0.192 in.) Nominal	5.96 mm (0.235 in.)	5.30 mm (0.209 in.) Nominal	802T-CMTH

Modifications and Accessories—See page 5-73.

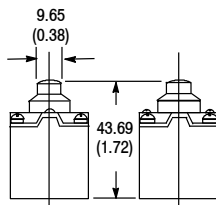
802T Horizontal 4-Circuit Push Type • Spring Return & Maintained Contact

NonPlug-in Style Oiltight Switches

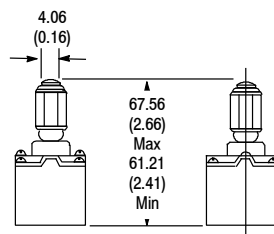
Approximate Dimensions [mm (in.)]



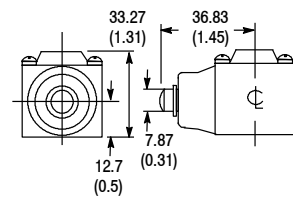
2-Pole Horizontal Switch Base
Shipping Wt. 0.91 kg (2 lb)



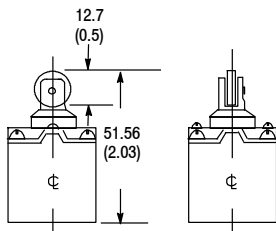
Z-19243
Top Push Rod Head
Shipping Wt. 0.128 kg (4.5 oz)



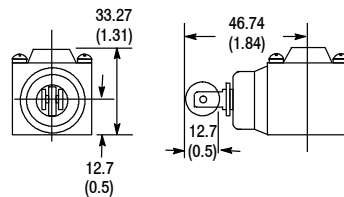
Adjustable Top Push Rod Head
for 802T-KTH
Shipping Wt. 0.128 kg (4.5 oz) ❶



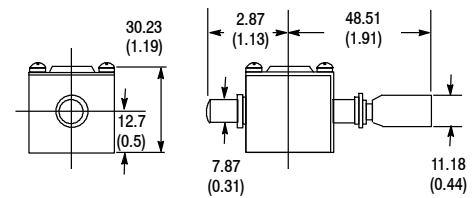
Z-21165
Side Push Rod Head
Shipping Wt. 0.128 kg (4.5 oz)



Z-19241
Top Push Roller Head
Shipping Wt. 0.128 kg (4.5 oz)



Z-21166
Side Push Roller Head
Shipping Wt. 0.128 kg (4.5 oz)



Z-21168
Maintained Side Push Rod Head
Shipping Wt. 0.128 kg (4.5 oz)

❶ Not a saleable item.

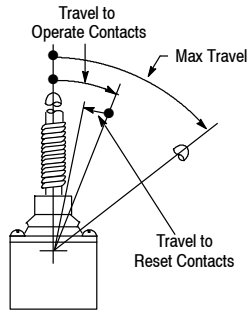
Modifications and Accessories—See page 5-73.

Limit Switches

802T Horizontal 4-Circuit Wobble Stick & Cat Whisker • Spring Return

NonPlug-in Style Oiltight Switches

Range of Operation



Travels Are Measured at Rigid Section of Stick



Wobble Stick



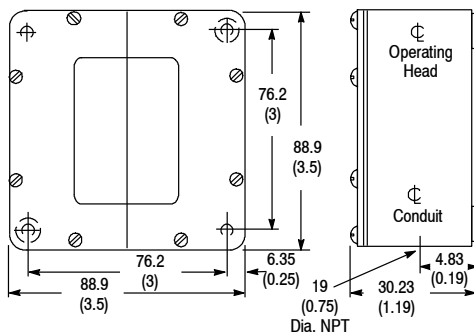
Cat Whisker

Product Selection

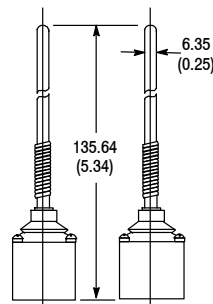
Operator Type	Contact Operation	Torque to Operate (Max.)	Travel to Operate Contacts (Max.)	Max Travel	Travel to Reset Contacts (Max.)	Cat. No.
Nylon Wobble Stick		0.79 N•m (7 lb•in)	12°	12°	9°	802T-WSTH
Wire Cat Whisker						802T-WS1TH

These switches should be mounted in such a way that the wobble stick or cat whisker will not be deflected beyond the "Maximum Travel" position, as this could cause undesirable repetition of contact action on rebound.

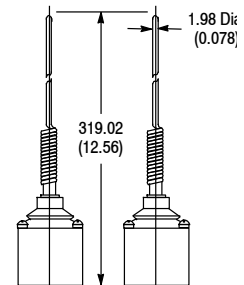
Approximate Dimensions [mm (in.)]



2-Pole Horizontal Switch
Shipping Wt. 0.91 kg (2 lb)



Z-29195 Nylon
Wobble Stick Head
Shipping Wt. 0.128 kg (4.5 oz)

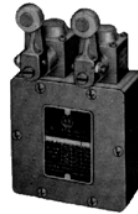


Z-32109 Wire
Wobble Stick Head
Shipping Wt. 0.149 kg (5.25 oz)

Modifications and Accessories—See page 5-73.

802T Dual Switch Lever and Push Types • Spring Return

NonPlug-in Style Oiltight Switches



Dual Switch with
802T-W1 Levers

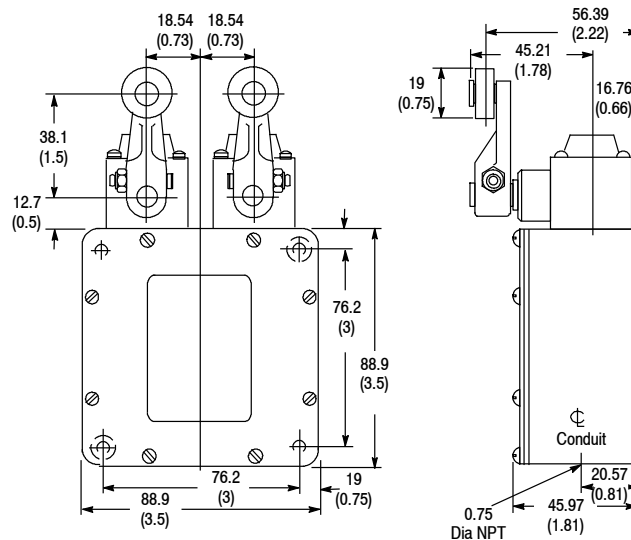
Product Selection①

		Right Hand Switch					
		802T-A	802T-H	802T-A1	802T-A2	802T-C	802T-D
Left Hand Switch	802T-A	802T-AD	802T-AHD	802T-AA1D	802T-AA2D	802T-ACD	802T-ADD
	802T-H	802T-HAD	802T-HD	802T-HA1D	802T-HA2D	802T-HCD	802T-HDD
	802T-A1	802T-A1AD	802T-A1HD	802T-A1D	802T-A1A2D	802T-A1CD	802T-A1DD
	802T-A2	802T-A2AD	802T-A2HD	802T-A2A1D	802T-A2D	802T-A2CD	802T-A2DD
	802T-C	802T-CAD	802T-CHD	802T-CA1D	802T-CA2D	802T-CD	802T-CDD
	802T-D	802T-DAD	802T-DHD	802T-DA1D	802T-DA2D	802T-DCD	802T-DD

① Ordering Information—Refer to limit switch listings on pages 5-55 and 5-59 determine which units and levers are correct for the desired application. Select left limit switch from left hand vertical column. Select right hand switch from right hand horizontal column. The correct cat. no. is found at the intersecting box.

② Most levers listed on page 5-130 can be used. When dual limit switch combinations are desired, consult your local Rockwell Automation sales office or Allen-Bradley Distributor(see page 13-1).

Approximate Dimensions [mm (in.)]



Dual Switch with 802T-W1 Levers
Shipping Wt. 0.91 kg (2 lbs)

Levers②—See page 5-130 for a complete listing of operating levers.

Modifications and Accessories—See page 5-73.

Limit Switches

802T Air-Operated • Spring Return

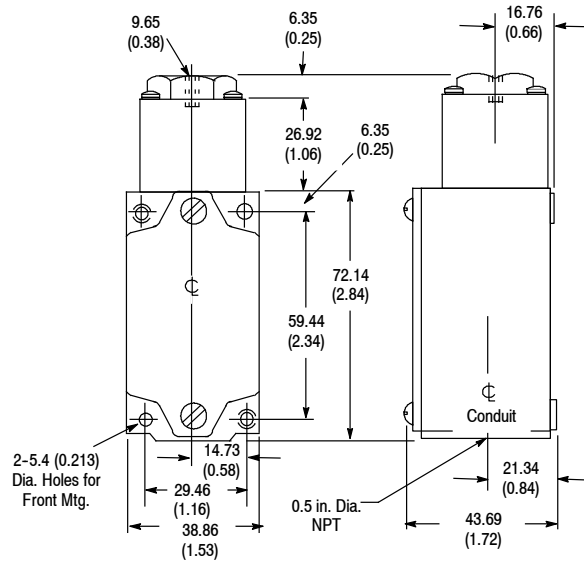
NonPlug-in Style Oiltight Switches

Product Selection

Contact Operation ❶	Cat. No.	
	Single Unit ❷	Double Unit ❸
Will operate when 25 psi (172 kPa) ±25% of air pressure is applied, and will reset with a pressure drop of 6...15 psi (41...103 kPa). Maximum allowable pressure is 100 psi (680 kPa).	802T-P	802T-2P

- ❶ When the switch is in the reset state a small rod protrudes from the top of the die casting. The rod is flush with the surface when the switch trips on higher pressure. The switch can be manually operated by pressing down on the rod.
- ❷ Contact operation similar to 2-circuit devices.
- ❸ Contact operation similar to 4-circuit horizontal construction devices.

Approximate Dimensions [mm (in.)]



Air-Operated Switch
Shipping Wt. 0.34 kg (12 oz)

Modifications and Accessories—See page 5-73.

802T Modifications and Accessories

NonPlug-in Style Oiltight Switches

Cavity Mounting



Front View



Rear View

802T-AO with 802T-W1A Lever

Manifold Mounting



802T-AMU with 802T-W4A Lever

Cavity Mounting

Except for the types identified by Cat. Nos. 802T-B, 802T-D, 802T-WS, 802T-WS1, and 802T-CW, Bulletin 802T switches can be supplied in a special construction for cavity mounting in a machine base or panel. With this construction, the actuator and contact block are mounted on the back of a gasket steel plate. To order a switch for cavity mounting, add the letter **O** to the cat. no. of the corresponding surface mounted switch. Example: Cat. No. 802T-A becomes cat. no. 802T-AO (shown).

Manifold Mounting

All two-circuit Bulletin 802T switches can be supplied with a special base which permits mounting the switch manifold style on a machine base, panel or raceway. This base is equipped with a wiring hole and synthetic rubber gasket on the back (see illustration).

To order a switch with a manifold mounting base, add the letter **U** to the cat. no. Example: Cat. No. 802T-AM becomes cat. no. 802T-AMU (shown).

Transparent Cover

Switches can be furnished with a gasket, transparent plastic cover. This modification enables the electrician to inspect terminal wiring without removing the switch cover. Not available on cat whisker, time delay or cavity style mounted limit switches.

To order a switch with a transparent cover, add the letter **Z** to the cat. no. of the switch. For example: Cat. No. 802T-D becomes Cat. No. 802T-DZ.

Extended Temperature Operation

Bulletin 802T nonplug-in limit switches are designed to operate in a temperature range of -18...+54°C (0...+130°F). Special limit switches modified for extended temperature operation -29...+121°C (-20...+250°F) are available.

Note: Temperature ranges below 0°C (+32°F) are based on the absence of freezing moisture or water.

To order a Bulletin 802T modified for extended temperature operation, insert the letter **E** after the operating head designation. Example: Cat. No. 802T-A becomes Cat. No. 802T-AE. (Cat. Nos. 802T-WS, WS1, CW, P, 2P and the time delay limit switches are not available for extended temperature operation. Cat. Nos. 802T-A3 and A4 are available for extended temperature operation except with a reduction in damping.)

Special Conduit Positions

Dual operating head switches can be obtained with up to three conduit openings. The location of conduit openings A, B, and C are illustrated in the dimension drawing on page 5-66. The conduit opening in Position A is 3/4 in. NPT, the conduit openings in Position B and C are 1/2 inch NPT. To order a switch with special conduit positioning, add the suffix **S1**, **S2** or **S3** to the cat. no. per the following:

- S1=Position A+B
- S2=Position A+C
- S3=Position B+C

Neon Indicating Lights (2-Circuit Models Only)

Two circuit Bulletin 802T surface mounted limit switches can be supplied with two neon indicating lights—AC 208/240V, 50...60 Hz and 120V, 50...60 Hz. To order, add the letter **N** for 120V or **N5** for 240V before the lever designation. Example: Cat. No. 802T-A1 with indicating lights would be 802T-A1N. Not available on 4-circuit devices.

In addition, indicating light kits as shown in the table below are available for field installation on two circuit devices.

Limit Switch Construction	Light Kit Cat. No.	
	120V AC 50...60 Hz	208/240V AC 50...60 Hz
Surface Mounted	802T-N1	802T-N4
Neutral Position	802T-N2	802T-N10

Conduit Seal

A synthetic rubber conduit seal is available to protect the conduit opening against entry of oil and moisture. The seal can be added easily before switch installation and should be installed so that the 5/8 inch diameter projection (the other projection is 23/32 inch diameter) faces against the shoulder at the bottom of the pipe tap. The seal can accommodate up to four wires of #12 gauge or smaller. Each wire hole in the seal has a thin inner wall which is pierced when a wire is passed through. Thus, any unused opening remains sealed. The seat is designed for single contact block, surface mounted base limit switches having 1/2 inch conduit openings.

Conduit seal Cat. No. **802T-N3**

Special Conduit Lock Nut

This option, a "Tru-Seal" nut with threaded PTFE insert, is a valuable accessory for any Bulletin 802T which is connected by means of conduit.

"Tru-Seal" lock nut for 1/2 inch conduit
Cat. No. **802T-X4**