

Non Plug-In Switches



Non Plug-In Switches

Product Description

10316 Type L non plug-in limit switches by Eaton’s electrical sector are sold as complete assembled devices only with a wide array of operating head configurations. All switches are single-pole 1NO-1NC.

Features

- Side and top rotary, side and top push or wobble operation
- CW, CCW or CW and CCW operating modes are field convertible
- Double break-make snap action contacts, same polarity each pole
- Captive saddle clamp terminals accept up to #12 wire
- Head can be mounted in any of four discrete positions, intervals of 90°

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Standards and Certifications

- UL Listed
- CSA Certified



⚠ DANGER

THIS SENSOR IS NOT A SAFETY DEVICE AND IS NOT INTENDED TO BE USED AS A SAFETY DEVICE. This sensor is designed only to detect and read certain data in an electronic manner and perform no use apart from that, specifically no safety-related use. This sensor product does not include self-checking redundant circuitry, and the failure of this sensor product could cause either an energized or de-energized output condition, which could result in death, serious bodily injury, or property damage.

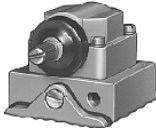
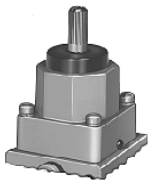
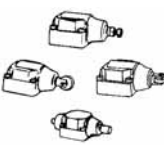

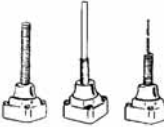
For the most current information on this product, visit our Web site: www.eaton.com

For Customer Service in the U.S. call 1-877-ETN CARE (386-2273), in Canada call 1-800-268-3578.
For Application Assistance in the U.S. and Canada call 1-800-426-9184.

Product Selection

2

Complete Assembled Switches Single-Pole 1NO-1NC

| | Operating Characteristics | Operating Data—Nominal | | Total Travel | Force to Operate Contacts | Minimum Return Force | Catalog Number |
|---|--|-------------------------------|-----------------------------|------------------|------------------------------|-------------------------|------------------|
| | | Travel to Operate Contacts | Travel to Reset Contacts | | | | |
| Side Rotary Operated | Side Rotary Operated ① | | | | | | |
|  | Standard | 10° | 4° | 50° | 3 in-lbs | 4.5 in-oz | 10316H187 |
| Top Rotary Operated | Top Rotary Operated ① | | | | | | |
|  | Clockwise | 20° | 12° | 140° | 1.1 in-lbs | 3 in-oz | 10316H700 |
| | Counterclockwise | 20° | 12° | 140° | 1.1 in-lbs | 3 in-oz | 10316H701 |
| Side Push Operated | Side Push Operated | | | | | | |
|  | Adjustable pushbutton | 0.07 in (1.8 mm) | 0.03 in (0.8 mm) | 0.29 in (7.4 mm) | 4 lbs | 8 oz | 10316H621 |
| | Vertical roller— 0.44 in (11.2 mm) dia. | 0.07 in (1.8 mm) | 0.03 in (0.8 mm) | 0.29 in (7.4 mm) | 4 lbs | 8 oz | 10316H284 |
| | Horizontal roller— 0.44 in (11.2 mm) dia. | 0.07 in (1.8 mm) | 0.03 in (0.8 mm) | 0.29 in (7.4 mm) | 4 lbs | 8 oz | 10316H285 |
| Top Push Operated | Top Push Operated | | | | | | |
|  | Pushbutton | 0.04 in (1.0 mm) | 0.02 in (0.5 mm) | 0.28 in (7.1 mm) | 4 lbs | 8 oz | 10316H281 |
| | Roller—0.44 in (11.2 mm) dia. | 0.04 in (1.0 mm) | 0.02 in (0.5 mm) | 0.28 in (7.1 mm) | 4 lbs | 8 oz | 10316H283 |
| | Roller—0.75 in (19.1 mm) dia. | 0.04 in (1.0 mm) | 0.02 in (0.5 mm) | 0.28 in (7.1 mm) | 4 lbs | 8 oz | 10316H577 |
| Wobble Operated | Wobble Operated ② | | | | | | |
|  | Spring | 10° | 6° | 15° | 1 in-lb | 2.4 in-oz | 10316H299 |
| | Nylon rod | 10° | 6° | 15° | 2 in-lbs | 2.4 in-oz | 10316H296 |
| | Wire | 10° | 6° | 15° | 2 in-lbs | 2.4 in-oz | 10316H484 |
| | Cat whisker | 15° | 5° | 30° | 0.63 in-lb | 1.7 in-oz | 10316H341 |

Notes① For operating levers, see **Page V8-T2-80**.② For wobble operators, see **Page V8-T2-80**.

Technical Data and Specifications

Non Plug-In Switches

| Description | Specification |
|-------------------------------|--|
| Contact rating | NEMA A600, R300 double break-make snap action contacts |
| Electrical life | 500,000 operations minimum |
| Mechanical life | 5,000,000 operations minimum at full load |
| Conduit entrance | 0.5 in (12.7 mm) NPT |
| Material of construction | Zinc die cast |
| Enclosure rating | NEMA 1, 4, 13 |
| Ambient operating temperature | -20° to 200°F (-29° to 93°C) ① |
| Approximate shipping weight | 2 lbs |

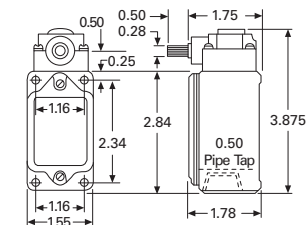
Electrical Data—Maximum Contact Ratings per Pole ②

| Current, Amperes | | | Volts, Amperes | | | | |
|------------------------|------|-------|-----------------------|------|-------|----------|--------------------|
| AC Volts | Make | Break | Cont. Thermal Ratings | Make | Break | DC Volts | DC Current, Ampere |
| NEMA A600, R300 Rating | | | | | | | |
| 120 | 60 | 6 | 10 | 7200 | 720 | 125 | 0.22 |
| 240 | 30 | 3 | 10 | 7200 | 720 | 250 | 0.11 |
| 480 | 15 | 1.5 | 10 | 7200 | 720 | 250 | 0.11 |
| 600 | 12 | 1.2 | 10 | 7200 | 720 | 250 | 0.11 |

Dimensions

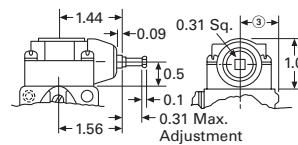
Approximate Dimensions in Inches or Inches (mm)

Side Rotary Operated Head with Switch

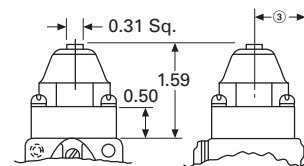


(2) 0.203 Dia. Holes for Front Mtg.
(2) 10-32 Tapped Holes 0.375 Deep for Rear Mtg.

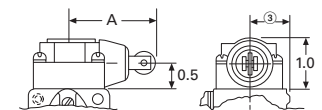
Side Pushbutton, Adjustable



Top Pushbutton



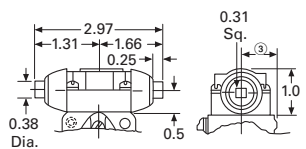
Side Push, Vertical Roller



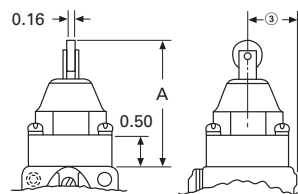
Dimension "A"

| | |
|------------------------------|-------------|
| With 0.44 (11.2) dia. roller | 1.78 (45.2) |
| With 0.75 (19.1) dia. roller | 2.09 (53.1) |

Side Push Maintained Contact



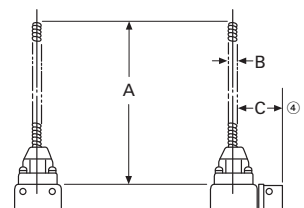
Top Push Roller



Dimension "A"

| | |
|------------------------------|-------------|
| With 0.44 (11.2) dia. roller | 2.03 (51.6) |
| With 0.75 (19.1) dia. roller | 2.34 (59.4) |

Wobble Operators



| A | B | C |
|---------------------------|------------|-------------|
| Wobble Spring | | |
| 5.44 (138.2) | 0.31 (7.9) | 0.81 (20.6) |
| Wire Wobble Stick | | |
| 12.5 (317.5) | 0.08 (2.0) | 0.81 (20.6) |
| Nylon Wobble Stick | | |
| 4.5 (114.3) | 0.25 (6.4) | 0.81 (20.6) |

Notes

- ① Ranges below 32°F (0°C) are based on absence of freezing moisture or water.
- ② Contacts must be same polarity when both circuits are used.
- ③ Dimension from centerline of head to mounting surface is 0.78 in (20 mm).
- ④ Center to mounting surface.