

# Eaton NEMA Limit Switches

## NEMA Limit Switches F25 Series

- 9 side rotary heads available
- 990-degree adjustable head. Levers are adjustable to any angle on the operating shaft.
- Die-cast zinc housing for industrial applications
- Fully assembled out of box
- SPDT and DPDT snap action configurations available
- 1/2 inch NPT conduit opening
- Contact patterns similar to those of leading competitors

| NEMA Limit Switches F25 Series |          |                     |                                                                   |                      |                            |              |                           |       |
|--------------------------------|----------|---------------------|-------------------------------------------------------------------|----------------------|----------------------------|--------------|---------------------------|-------|
| Part Number                    | Price    | Drawing Link        | Actuator Type                                                     | Snap Action Contacts | Travel to Operate Contacts | Total Travel | Force to Operate Contacts | Photo |
| <b>Side Rotary</b>             |          |                     |                                                                   |                      |                            |              |                           |       |
| <a href="#">F25ASRL200</a>     | \$155.00 | <a href="#">PDF</a> | 1.5 inch stainless steel lever with Nylatron roller               | (1) N.O./(1) N.C.    | 5°                         | 90°          | 3 lb•in<br>[0.34 N•m]     | A     |
| <a href="#">F25BSRL200</a>     | \$191.00 | <a href="#">PDF</a> |                                                                   | (2) N.O./(2) N.C.    |                            |              |                           | B     |
| <a href="#">F25ASRL355</a>     | \$155.00 | <a href="#">PDF</a> | 1.5 inch stainless steel lever with metal roller                  | (1) N.O./(1) N.C.    |                            |              |                           | C     |
| <a href="#">F25BSRL355</a>     | \$191.00 | <a href="#">PDF</a> |                                                                   | (2) N.O./(2) N.C.    |                            |              |                           | D     |
| <a href="#">F25ASRL549</a>     | \$170.00 | <a href="#">PDF</a> | 2 inch stainless steel lever with metal roller                    | (1) N.O./(1) N.C.    |                            |              |                           | E     |
| <a href="#">F25BSRL549</a>     | \$206.00 | <a href="#">PDF</a> |                                                                   | (2) N.O./(2) N.C.    |                            |              |                           | F     |
| <a href="#">F25ASRL551</a>     | \$171.00 | <a href="#">PDF</a> | 3 inch stainless steel lever with metal roller                    | (1) N.O./(1) N.C.    |                            |              |                           | G     |
| <a href="#">F25BSRL551</a>     | \$207.00 | <a href="#">PDF</a> |                                                                   | (2) N.O./(2) N.C.    |                            |              |                           | H     |
| <a href="#">F25ASRL548</a>     | \$171.00 | <a href="#">PDF</a> | 3 inch stainless steel lever with Nylatron roller                 | (1) N.O./(1) N.C.    |                            |              |                           | I     |
| <a href="#">F25BSRL548</a>     | \$207.00 | <a href="#">PDF</a> |                                                                   | (2) N.O./(2) N.C.    |                            |              |                           |       |
| <a href="#">F25ASRL539</a>     | \$177.00 | <a href="#">PDF</a> | Adjustable stainless steel lever with ball bearing roller         | (1) N.O./(1) N.C.    |                            |              |                           |       |
| <a href="#">F25BSRL539</a>     | \$212.00 | <a href="#">PDF</a> |                                                                   | (2) N.O./(2) N.C.    |                            |              |                           |       |
| <a href="#">F25ASRL201</a>     | \$170.00 | <a href="#">PDF</a> | Side rotary adjustable stainless steel lever with Nylatron roller | (1) N.O./(1) N.C.    |                            |              |                           |       |
| <a href="#">F25BSRL201</a>     | \$206.00 | <a href="#">PDF</a> |                                                                   | (2) N.O./(2) N.C.    |                            |              |                           |       |
| <a href="#">F25ASRL421</a>     | \$170.00 | <a href="#">PDF</a> | Adjustable spring stainless steel rod                             | (1) N.O./(1) N.C.    |                            |              |                           |       |
| <a href="#">F25BSRL421</a>     | \$206.00 | <a href="#">PDF</a> |                                                                   | (2) N.O./(2) N.C.    |                            |              |                           |       |
| <a href="#">F25ASRL142</a>     | \$170.00 | <a href="#">PDF</a> | 6 inch Nylatron loop                                              | (1) N.O./(1) N.C.    |                            |              |                           |       |
| <a href="#">F25BSRL142</a>     | \$206.00 | <a href="#">PDF</a> |                                                                   | (2) N.O./(2) N.C.    |                            |              |                           |       |



A



B



C



D



E



F



G



H



I

# Eaton NEMA Limit Switches

## NEMA Limit Switches F25 Series

- 12 push and 6 wobble heads available
- 90-degree adjustable head
- Die-cast zinc housing for industrial applications
- Fully assembled out of box
- SPDT and DPDT snap action configurations available
- 1/2 in NPT conduit opening
- Contact patterns similar to those of leading competitors

| NEMA Limit Switches F25 Series |          |                     |                                      |                      |                            |                        |                           |       |
|--------------------------------|----------|---------------------|--------------------------------------|----------------------|----------------------------|------------------------|---------------------------|-------|
| Part Number                    | Price    | Drawing Link        | Actuator Type                        | Snap Action Contacts | Travel to Operate Contacts | Total Travel           | Force to Operate Contacts | Photo |
| Side Push                      |          |                     |                                      |                      |                            |                        |                           |       |
| <a href="#">F25ASP1</a>        | \$161.00 | <a href="#">PDF</a> | Side metal plunger                   | (1) N.O./ (1) N.C.   | 0.065 in<br>[1.651 mm]     | 0.290 in<br>[7.366 mm] | 4lb<br>[1.81 kg]          | A     |
| <a href="#">F25BSP1</a>        | \$204.00 | <a href="#">PDF</a> |                                      | (2) N.O./ (2) N.C.   |                            |                        |                           |       |
| <a href="#">F25ASP2</a>        | \$183.00 | <a href="#">PDF</a> | Side metal plunger adjustable        | (1) N.O./ (1) N.C.   |                            |                        |                           | B     |
| <a href="#">F25BSP2</a>        | \$224.00 | <a href="#">PDF</a> |                                      | (2) N.O./ (2) N.C.   |                            |                        |                           |       |
| <a href="#">F25ASP3</a>        | \$183.00 | <a href="#">PDF</a> | Side metal plunger with metal roller | (1) N.O./ (1) N.C.   |                            |                        |                           | C     |
| <a href="#">F25BSP3</a>        | \$219.00 | <a href="#">PDF</a> |                                      | (2) N.O./ (2) N.C.   |                            |                        |                           |       |
| Top Push                       |          |                     |                                      |                      |                            |                        |                           |       |
| <a href="#">F25ATP1</a>        | \$146.00 | <a href="#">PDF</a> | Metal plunger                        | (1) N.O./ (1) N.C.   | 0.040 in<br>[1.00 mm]      | 0.280 in<br>[7.366 mm] | 4lb<br>[1.81 kg]          | D     |
| <a href="#">F25BTP1</a>        | \$192.00 | <a href="#">PDF</a> |                                      | (2) N.O./ (2) N.C.   |                            |                        |                           |       |
| <a href="#">F25ATP2</a>        | \$183.00 | <a href="#">PDF</a> | Metal plunger adjustable             | (1) N.O./ (1) N.C.   |                            |                        |                           | E     |
| <a href="#">F25BTP2</a>        | \$224.00 | <a href="#">PDF</a> |                                      | (2) N.O./ (2) N.C.   |                            |                        |                           |       |
| <a href="#">F25ATP3</a>        | \$161.00 | <a href="#">PDF</a> | Metal plunger with metal roller      | (1) N.O./ (1) N.C.   |                            |                        |                           | F     |
| <a href="#">F25BTP3</a>        | \$204.00 | <a href="#">PDF</a> |                                      | (2) N.O./ (2) N.C.   |                            |                        |                           |       |
| Wobble Head                    |          |                     |                                      |                      |                            |                        |                           |       |
| <a href="#">F25AW2</a>         | \$143.00 | <a href="#">PDF</a> | 360 degree nylon rod                 | (1) N.O./ (1) N.C.   | 10°                        | 15°                    | 2 lb•in<br>[1.23 N•m]     | G     |
| <a href="#">F25BW2</a>         | \$209.00 | <a href="#">PDF</a> |                                      | (2) N.O./ (2) N.C.   |                            |                        |                           |       |
| <a href="#">F25AW3</a>         | \$143.00 | <a href="#">PDF</a> | 360 degree stainless steel rod       | (1) N.O./ (1) N.C.   |                            |                        |                           | H     |
| <a href="#">F25BW3</a>         | \$209.00 | <a href="#">PDF</a> |                                      | (2) N.O./ (2) N.C.   |                            |                        |                           |       |
| <a href="#">F25AW4</a>         | \$146.00 | <a href="#">PDF</a> | 360 degree stainless steel spring    | (1) N.O./ (1) N.C.   |                            |                        |                           | I     |
| <a href="#">F25BW4</a>         | \$209.00 | <a href="#">PDF</a> |                                      | (2) N.O./ (2) N.C..  |                            |                        |                           |       |



# Eaton NEMA Limit Switches

## Specifications



| NEMA Limit Switches Specifications F25 Series |    |                                                                                                                                                                      |
|-----------------------------------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental                                 |    |                                                                                                                                                                      |
| Degree of Protection                          |    | NEMA 3, 3S, 4, 4X, 6, 6P, 13<br>IP67                                                                                                                                 |
| Temperature Range                             |    | Side Rotary 10°F [-12°C] to 200°F [94°C]<br>Side Push 14°F [-10°C] to 200°F [94°C]<br>Wobble 14°F [-10°C] to 250°F [121°C]                                           |
| Mechanical Ratings                            |    |                                                                                                                                                                      |
| Repeat Accuracy                               |    | Side Operated: Within 0.0012 in. [0.0305 mm]<br>Side Push: Within 0.003 in. [0.076 mm]<br>Top Push: Within 0.002 in. [0.051 mm]                                      |
| Mechanical Life                               |    | Side Rotary: 13 million operations minimum<br>Side and Top Push: 10 million operations minimum<br>Wobble: 10 million operations minimum                              |
| Conduit Entrance                              |    | 1/2 in NPT                                                                                                                                                           |
| Enclosure Material                            |    | Die-cast zinc alloy                                                                                                                                                  |
| Contact Blocks Rating                         |    |                                                                                                                                                                      |
| Contact Rating                                |    | NEMA A600 R300                                                                                                                                                       |
| Electrical Ratings                            | AC | Make: 60A at 120VAC; 30A at 240VAC; 15A at 480VAC; 12A at 600VAC<br>Break: 6A at 120VAC; 3A at 240VAC; 1.5 A at 480VAC; 1.2 A at 600VAC<br>Continuous: 10A at 480VAC |
|                                               | DC | Make: 0.25 A at 120VDC; 0.125 A at 240VDC                                                                                                                            |
| Maximum Switching Frequency                   |    | 8000 operations per hour                                                                                                                                             |
| Electrical Life                               |    | Single Pole: 1,000,000 operations typical at full load<br>Double Pole: 100,000 operations typical at full load                                                       |
| Wiring Connections                            |    | AWG #12 through #18 AWG Wire                                                                                                                                         |
| Torque Requirements                           |    | Switch Body Screws 25 - 30 in-lb [2.8 - 3.4 N•m]<br>Operating Head Screws 14 - 18 in-lb [1.6 - 2.0 N•m]                                                              |
| Agency Approvals *                            |    | cULus 170645 all versions<br>F25Ax versions have CE, All units are Reach compliant                                                                                   |

\*To obtain the most current agency approval information, see the Agency Compliance & Certifications Checklist section on the specific part number's web page.

## Connection Diagram

Connection diagram - SPDT, DPDT

The following connection diagram appears on the switch body nameplate.

