



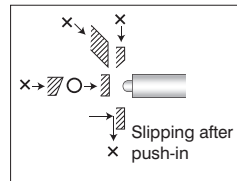
# Precision Limit Switches

## 90-Degree Straight Touch Limit Switches

### Features

- Slim design
- 90-degree cable orientation
- Long-stroke models available
- 5 micron ( $\mu\text{m}$ ) repeat accuracy
- Stainless steel housing
- Metal bearing

### 90-Degree Straight Touch



**O indicates correct target approach and orientation.**  
**X indicates approach and orientation that should be avoided.**

### 90-Degree Straight Touch Limit Switches Selection Chart

| Part Number                | Price   | Drawing Link        | Actuator/ Head Type*                           | Barrel Type | Barrel Diameter/Thread*                        | Stroke          | Switching Output | Contact Force | Connection Type      |
|----------------------------|---------|---------------------|------------------------------------------------|-------------|------------------------------------------------|-----------------|------------------|---------------|----------------------|
| <a href="#">CSS60A-LR</a>  | \$56.00 | <a href="#">PDF</a> | Ø 2mm plunger [0.079in]<br>SR 1.5mm [0.059in]  | Smooth      | Ø 6mm                                          | 2.8mm [0.110in] | (1) N.O.         | 1N            | Cable<br>3m [9.84ft] |
| <a href="#">CS065A-LR</a>  | \$67.00 | <a href="#">PDF</a> |                                                | Threaded    | M6x0.5                                         |                 | (1) N.O.         |               |                      |
| <a href="#">CS067A-BLR</a> | \$67.00 | <a href="#">PDF</a> | M6x0.75                                        |             | (1) N.O.                                       |                 |                  |               |                      |
| <a href="#">CS067A-LR</a>  | \$65.00 | <a href="#">PDF</a> |                                                |             | Ø 2mm plunger [0.079in]<br>SR 1.5mm [0.059in]  |                 | (1) N.O.         |               |                      |
| <a href="#">CS067B-LR</a>  | \$65.00 | <a href="#">PDF</a> |                                                |             |                                                |                 | (1) N.C.         |               |                      |
| <a href="#">CS087A-LR</a>  | \$65.00 | <a href="#">PDF</a> | Ø 3.5mm plunger [0.138in]<br>SR 3 mm [0.118in] |             | M8x0.75                                        |                 | (1) N.O.         |               |                      |
| <a href="#">CSJ055A-LR</a> | \$59.00 | <a href="#">PDF</a> |                                                |             | Ø 2mm plunger [0.079in]<br>SR 1.5 mm [0.059in] |                 | M5x0.5           |               |                      |
| <a href="#">CSJS50A-LR</a> | \$59.00 | <a href="#">PDF</a> | Smooth                                         |             |                                                |                 | Ø 5mm            |               |                      |
| <a href="#">CSK087A-LR</a> | \$64.00 | <a href="#">PDF</a> | Ø 3.5mm plunger [0.138in]<br>SR 3 mm [0.118in] | Threaded    | M8x0.75                                        | 5mm [0.197in]   | (1) N.O.         |               |                      |
| <a href="#">CSK087B-LR</a> | \$64.00 | <a href="#">PDF</a> |                                                |             |                                                |                 | (1) N.C.         |               |                      |

\* Ø = diameter, SR = surface radius



[CSS60A-LR](#)



[CS065A-LR](#)



[CS067A-BLR](#)



[CS067A-LR](#)



[CS067B-LR](#)



[CS087A-LR](#)



[CSJ055A-LR](#)



[CSJS50A-LR](#)



[CSK087A-LR](#)



[CSK087B-LR](#)



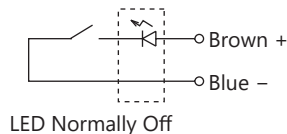
# Precision Limit Switches

| 90-Degree Straight Touch Limit Switches Specifications              |                                                                                                                |     |                    |                    |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----|--------------------|--------------------|
| Series                                                              | CS                                                                                                             | CSS | CSJ                | CSK                |
| Environmental                                                       |                                                                                                                |     |                    |                    |
| Degree of Protection                                                | IP65                                                                                                           |     |                    |                    |
| Temperature Range                                                   | Operating: 0 to 80°C [32 to 176°F] (Ice-free)                                                                  |     |                    |                    |
| Mechanical Ratings                                                  |                                                                                                                |     |                    |                    |
| Enclosure Material                                                  | Stainless Steel                                                                                                |     |                    |                    |
| Pretravel                                                           | 0.3 mm                                                                                                         |     |                    |                    |
| Torque (for nuts on threaded barrels, set screws on smooth barrels) | 4 N•m [2.95 lb•ft]                                                                                             | N/A | 2 N•m [1.48 lb•ft] | 7 N•m [5.16 lb•ft] |
| Vibration                                                           | 10–55Hz total amplitude 1.5 for X, Y, Z each direction                                                         |     |                    |                    |
| Shock                                                               | 300 m/s² for X, Y, Z each direction                                                                            |     |                    |                    |
| Repeat Accuracy                                                     | 5 micron (µm) *                                                                                                |     |                    |                    |
| Recommended Minimum Operating Speed                                 | 50mm (1.96in)/minute                                                                                           |     |                    |                    |
| Electrical Ratings                                                  |                                                                                                                |     |                    |                    |
| Contact Life                                                        | 10 million operations                                                                                          |     |                    |                    |
| Contact Voltage                                                     | 5–24VDC                                                                                                        |     |                    |                    |
| Steady Current Rating                                               | 10mA or less                                                                                                   |     |                    |                    |
| Max In-rush Current Rating                                          | 10mA (limit current to protect LED indicator)                                                                  |     |                    |                    |
| Connection Type                                                     | Cable: 3m [9.84 ft], oil resistant, Ø2.8/2 cores, tensile strength 30N [6.74 lbf], minimum bending R7, 2-26AWG |     |                    |                    |
| Indicating                                                          | -L: LED indicator (mounted in cable 120mm from the switch)                                                     |     |                    |                    |

\* At operating speed 50-200 mm/minute. Operating speed slower than 10 mm/min is not recommended.

## Circuit Diagrams

Normally open (N.O.)



Normally closed (N.C.)

