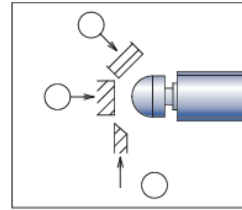


Precision Limit Switches

Sliding Angled Offset Touch Limit Switches

- Metal and plastic hemisphere actuators
- 5 micron (μm) repeat accuracy
- Stainless steel housing

Sliding Angled Offset Touch



O indicates correct target approach and orientation.

X indicates approach and orientation that should be avoided.

| Sliding Angled Offset 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 |
| Sliding Angled Offset Touch | | | | | | | | | |
| CSHP085A-L | | PDF | Ø 4.7 mm SR 3mm | Threaded | M8×0.5 | 2.8 mm (0.110 in) | N.O. | 1N | 2m (6.56 ft) cable |
| CSHP085B-L | | PDF | Ø 4.7 mm SR 3mm | Threaded | M8×0.5 | 2.8 mm (0.110 in) | N.C. | 1N | 2m (6.56 ft) cable |
| CSH121A-AL | | PDF | Ø 10 hemisphere | Threaded | M12x1 | 2.8 mm (0.110 in) | N.O. | 1.5 N | 2m (6.56 ft) cable |
| CSH121B-AL | | PDF | Ø 10 hemisphere | Threaded | M12x1 | 2.8 mm (0.110 in) | N.C. | 1.5 N | 2m (6.56 ft) cable |
| CSH121A-APL | | PDF | Ø 10 hemisphere, plastic | Threaded | M12x1 | 2.8 mm (0.110 in) | N.O. | 1.5 N | 2m (6.56 ft) cable |
| CSH121B-APL | | PDF | Ø 10 hemisphere, plastic | Threaded | M12x1 | 2.8 mm (0.110 in) | N.C. | 1.5 N | 2m (6.56 ft) cable |

* Ø = diameter, SR = surface radius



CSHP085A-L



CSH121A-AL



CSH121B-AL



CSH121A-APL



CSH121B-APL

Precision Limit Switches

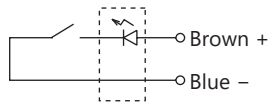
Sliding Angled Offset Touch Limit Switches

| Sliding Angled Offset Touch Limit Switches Specifications | | |
|---|---|---------------------|
| Series | CSHP | CSH |
| Environmental | | |
| Degree of Protection | IP67 | IP65 |
| Temperature Range | Operating: 0–80°C (32–176°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) | 12 N•m (8.85 lb•ft) |
| Oscillation | 10–55Hz total amplitude 1.5 for X, Y, Z each direction | |
| Impact | 300 m/s ² for X, Y, Z each direction | |
| Repeat Accuracy | 0.005 mm (5 micron [μm]) | |
| Recommended Minimum Operating Speed | 10 mm (0.394 in)/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, 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 10mm/min is not recommended.

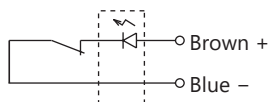
Circuit Diagrams

Normally open (N.O.)



LED Normally Off

Normally closed (N.C.)



LED Normally On