



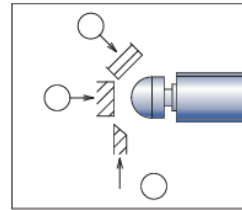
# Precision Limit Switches

## Sliding Angled Offset Touch Limit Switches

### Features

- Metal and plastic hemisphere actuators
- 5 micron ( $\mu\text{m}$ ) repeat accuracy
- Stainless steel housing

#### Sliding Angled Offset Touch



O indicates correct target approach and orientation.

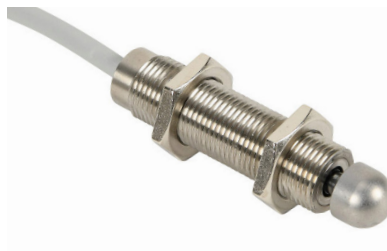
### Sliding Angled Offset Touch Limit Switches Selection Chart

Part Number	Price	Drawing Link	Actuator/ Head Type*	Barrel Type	Barrel Diameter/Thread*	Stroke	Switching Output	Contact Force	Connection Type
<a href="#"><u>CSHP085A-L</u></a>	\$158.00	<a href="#"><u>PDF</u></a>	Ø 4.7mm plunger SR 3mm	Threaded	M8×0.5	2.8mm [0.110in]	(1) N.O.	1N	Cable 2m [6.56 ft]
<a href="#"><u>CSHP085B-L</u></a>	\$158.00	<a href="#"><u>PDF</u></a>	Ø 4.7mm plunger SR 3mm	Threaded	M8×0.5		(1) N.C.	1N	
<a href="#"><u>CSH121A-A</u></a>	\$79.00	<a href="#"><u>PDF</u></a>	Ø 10mm hemisphere SR 5mm	Threaded	M12x1		(1) N.O.	1.5N	
<a href="#"><u>CSH121A-AL</u></a>	\$78.00	<a href="#"><u>PDF</u></a>	Ø 10mm hemisphere SR 5mm	Threaded	M12x1		(1) N.O.	1.5N	
<a href="#"><u>CSH121B-AL</u></a>	\$81.00	<a href="#"><u>PDF</u></a>	Ø 10mm hemisphere SR 5mm	Threaded	M12x1		(1) N.C.	1.5N	
<a href="#"><u>CSH121A-APL</u></a>	\$90.00	<a href="#"><u>PDF</u></a>	Ø 10mm hemisphere SR 5mm plastic	Threaded	M12x1		(1) N.O.	1.5N	
<a href="#"><u>CSH121B-APL</u></a>	\$90.00	<a href="#"><u>PDF</u></a>	Ø 10mm hemisphere SR 5mm plastic	Threaded	M12x1		(1) N.C.	1.5N	

\* Ø = diameter, SR = surface radius



[CSHP085B-L](#)



[CSH121A-A](#)



[CSH121A-AL](#)



[CSH121B-AL](#)



[CSH121A-APL](#)



[CSH121B-APL](#)



# Precision Limit Switches

## Sliding Angled Offset Touch Limit Switches Specifications

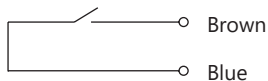
Series	CSHP	CSH
Environmental		
Degree of Protection	IP67	IP65
Temperature Range	Operating: 0 to 80°C [32 to 176°F] (Ice-free)	
Mechanical Ratings		
Enclosure Material	Stainless Steel	
Pretravel	0.3 mm	
Torque (for nuts on threaded barrels, set screws on smooth barrels)	4 N•m [2.95 lb•ft]	12 N•m [8.85 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	0.005mm (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: 2m [6.56ft] , 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.

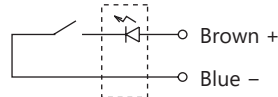
## Circuit Diagrams

Without LED	With LED
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Normally open (N.O.)

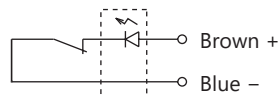


Normally open (N.O.)



LED Normally Off

Normally closed (N.C.)



LED Normally On