



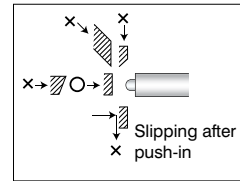
# Precision Limit Switches

## Precision Mini Straight Touch Limit Switches

### Features

- Mini size suitable for machines required to be small and for narrow installation space
- Stroke length (1.5mm)
- 3 micron ( $\mu\text{m}$ ) repeat accuracy
- Stainless steel housing
- Metal bearing

#### Precision Mini Touch



O indicates correct target approach and orientation.

X indicates approach and orientation that should be avoided.

### Precision Mini 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="#"><u>CSM105CA</u></a>	\$6bon:	<a href="#"><u>PDF</u></a>	Ø 3.5mm plunger SR 2.5mm	Threaded	M10×0.5	1.5mm	(1) N.O.	1N	Cable 2m [6.56ft]
<a href="#"><u>CSM105WA</u></a>	\$2bx5:	<a href="#"><u>PDF</u></a>	Ø 3.5mm plunger SR 2.5mm	Threaded	M10×0.5	1.5mm	(1) N.O.	1N	Core wire 0.5m [1.64ft]
<a href="#"><u>CSMP105WA</u></a>	\$2bx6:	<a href="#"><u>PDF</u></a>	2mm plunger with boot SR 2.5mm	Threaded	M10×0.5	1.5mm	(1) N.O.	1N	Core wire 0.5m [1.64ft]
<a href="#"><u>CSM105CA-L</u></a>	\$45hu:	<a href="#"><u>PDF</u></a>	Ø 3.5mm plunger SR 2.5mm	Threaded	M10×0.5	1.5mm	(1) N.O.	1N	Cable 2m [6.56ft]
<a href="#"><u>CSMP105CA-L</u></a>	\$45hv:	<a href="#"><u>PDF</u></a>	2mm plunger with boot SR 2.5mm	Threaded	M10×0.5	1.5mm	(1) N.O.	1N	Cable 2m [6.56ft]

\* Ø = diameter, SR = surface radius

-L: LED indicator (mounted in cable 120mm from the switch)



**[CSM105CA](#)**



**[CSM105WA](#)**



**[CSMP105WA](#)**



**[CSM105CA-L](#)**



**[CSMP105CA-L](#)**



# Precision Limit Switches

Precision Mini Straight Touch Limit Switches Specifications		
Type	Precision Angled	Precision Mini
Series	CSM	CSMP
Environmental		
Degree of Protection	IP65	IP67
Temperature Range	Operating: 0 to 80°C [32 to 176°F] (Ice-free)	
Mechanical Ratings		
Enclosure Material	303 Stainless Steel	
Pretravel	0.3 mm	
Torque (for nuts on threaded barrels, set screws on smooth barrels)	8 N•m [5.901 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	Both On–Off, Off–On: 0.003 mm*	
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	Core wire cable, 0.5 m (x2), oil resistant, Ø 0.6, tensile strength 15N, Cable: 2m, oil resistant Ø2.8/2 cores, tensile strength 30N [6.74 lbf], 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
<p>Normally open (N.O.)</p>	<p>Normally open (N.O.)</p>