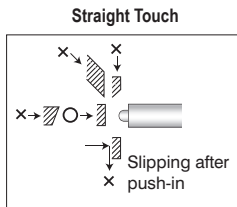


METROL Precision Limit Switches

Precision Touch Limit Switches

Features

- Slim design (from M5) allows side-by-side installation
- Long-stroke and water-resistant models available
- 5 micron (µm) repeat accuracy
- Stainless steel housing
- Metal bearing
- Straight-touch and straight needle touch available



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



CSJ055A-L

CS067A-CL

Precision 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
Straight Touch									
CSJ055A	\$45.00	PDF	Ø 2mm plunger, SR 1.5 mm	Threaded	M5×0.5	2.8mm	(1) N.O.	1N	Cable, 3m [9.8ft]
CSJ055A-L	\$54.00	PDF	Ø 2mm plunger, SR 1.5mm			2.8mm	(1) N.O.	1N	
CSJS50A	\$45.00	PDF	Ø 2mm plunger SR 1.5mm	Smooth	Ø 5mm	2.8mm	(1) N.O.	1N	
CSJS50A-L	\$54.00	PDF	Ø 2mm plunger, SR 1.5mm			2.8mm	(1) N.O.	1N	
CS065A-L	\$60.00	PDF	Ø 2mm plunger, SR 1.5mm	Threaded	M6×0.5	2.8mm	(1) N.O.	1N	
CSS60A-L	\$56.00	PDF	Ø 2mm plunger, SR 1.5mm	Smooth	Ø 6mm	2.8mm	(1) N.O.	1N	
CSS60B-L	\$56.00	PDF	Ø 2mm plunger, SR 1.5mm			2.8mm	(1) N.C.	1N	
CS067A	\$51.00	PDF	Ø 2mm plunger, SR 1.5mm	Threaded	M6×0.75	2.8mm	(1) N.O.	1N	
CS067A-B	\$55.00	PDF	Ø 2mm plunger, Ø 4mm flat			2.8mm	(1) N.O.	1N	
CS067A-L	\$60.00	PDF	Ø 2mm plunger, SR 1.5mm			2.8mm	(1) N.O.	1N	
CS067B	\$51.00	PDF	Ø 2mm plunger, SR 1.5mm			2.8mm	(1) N.C.	1N	
CS067B-L	\$60.00	PDF	Ø 2mm plunger, SR 1.5mm			2.8mm	(1) N.C.	1N	
CS067A-BL	\$65.00	PDF	Ø 2mm plunger, Ø 4mm flat			2.8mm	(1) N.O.	1N	
CSS80A-L	\$56.00	PDF	Ø 3.5mm plunger, SR 3mm			Smooth	Ø 8mm	2.8mm	
CS087A-L	\$60.00	PDF	Ø 3.5mm plunger, SR 3mm	Threaded	M8×0.75	2.8mm	(1) N.O.	1N	
CSK087A	\$58.00	PDF	Ø 3.5mm plunger, SR 3mm			5mm	(1) N.O.	1N	
CSK087A-L	\$67.00	PDF	Ø 3.5mm plunger, SR 3mm			5mm	(1) N.O.	1N	
CSK087B-L	\$67.00	PDF	Ø 3.5mm plunger, SR 5mm			5mm	(1) N.C.	1N	
CSP087A-AL	\$78.00	PDF	Ø 5.5mm plunger, 2mm round			2.8mm	(1) N.O.	1N	
CSP087B-AL	\$78.00	PDF	Ø 5.5mm plunger, 2mm round			2.8mm	(1) N.C.	1N	
Straight Needle Contact Touch									
CSJ055A-CL	\$60.00	PDF	needle plunger, 1.5mm flat	Threaded	M5×0.5	2.8mm	(1) N.O.	1N	Cable, 3m [9.8ft]
CS065A-CL	\$67.00	PDF	needle plunger, 1.5mm flat		M6×0.5	2.8mm	(1) N.O.	1N	
CS067A-CL	\$83.00	PDF	needle plunger, 1.5mm flat		M6×0.75	2.8mm	(1) N.O.	1N	
Spring Plunger									
SP080A-L	\$51.00	PDF	Ø 2.5mm plunger SR 1.25mm	Threaded	M8×1.25 mm	3mm	(1) N.O.	8N	Cable 2m [6.56ft]

* Ø = diameter, SR = surface radius

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



Precision Limit Switches



CSJ055A



CSJ055A-L



CSJS50A



CSJS50A-L



CS065A-L



CSS60A-L



CSS60B-L



CS067A



CS067A-B



CS067A-L



CS067B



CS067B-L



CS067A-BL



CSS80A-L



CS087A-L



CSK087A



CSK087A-L



CSP087A-AL



CSJ055A-CL



CS065A-CL



CS067A-CL



SP080A-L



Precision Limit Switches

Precision Touch Limit Switches Specifications						
Type	Straight Touch Switches					
Series	CS	CSJ	CSS	CSK	CSP	SP
Environmental						
Degree of Protection	IP65				IP67	IP40
Temperature Range	Operating: 0 to 80°C [32 to 176°F] (Ice-free)					
Mechanical Ratings						
Enclosure Material	Stainless Steel					
Pretravel	0.3 mm					2.2 mm
Torque (for nuts on threaded barrels, set screws on smooth barrels)	4 N•m	2 N•m	N/A	N/A	7 N•m	L1 10N•m L2 5•Nm
Vibration	10–55Hz total amplitude 1.5 for X, Y, Z each direction					
Shock	300 m/s ² for X, Y, Z each direction					
Repeat Accuracy	5 micron (µm) *					Both On-Off, Off-On 0.01mm (range)
Recommended Minimum Operating Speed	50mm (1.96 in)/minute					
Electrical Ratings						
Contact Life	10 million operations					3 million (spring)
Contact Voltage	5–24VDC					
Steady Current Rating	10mA or less					
Max In-rush Current Rating	20mA without LED indicator, 10mA with LED indicator					
Connection Type	Cable: 3m (2m for SP series) Oil resistant Ø2.8/ 2 cores, Tensile strength 30N, minimum bending R7					
Indicating	-L models: 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

Without LED	With LED (-L models)
<p>Normally open (N.O.)</p>	<p>Normally open (N.O.)</p>
<p>Normally closed (N.C.)</p>	<p>Normally closed (N.C.)</p>