



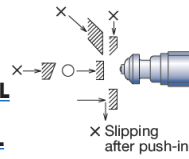
Precision Limit Switches

High Precision Touch Limit Switches

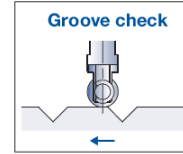
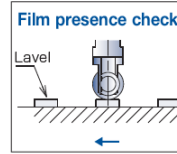
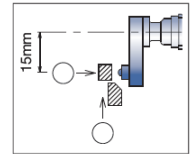
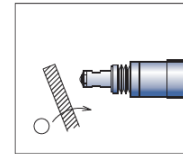
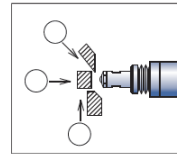
Features

- 0.5 micron (µm) repeat accuracy
- No movement differential
- No temperature drift
- Dustproof / water-resistant (IP67)
- LED indicator
- Stainless steel housing

P085DB-AL
P10DB-A
P10DA-AL
P10DB-AL
P10DLB-AL



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



P10DHA-TML
P10DHB-TML
P10DHLTB-TML

High 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									
P085DB-AL	\$148.00	PDF	Ø 5.5mm plunger, 2mm round	Threaded	M8×0.5	3mm	(1) N.C.	1N	Cable 3m [9.8ft]
P10DB-A	\$129.00	PDF	Ø8.5mm plunger, 2mm round	Threaded	M10×0.5	3mm	(1) N.C.	1N	
P10DB-AL	\$148.00	PDF	Ø 8.5mm plunger, 2mm round	Threaded	M10×0.5	3mm	(1) N.C.	1N	
P10DA-AL	\$148.00	PDF	Ø 8.5mm plunger, 2mm round	Threaded	M10×0.5	3mm	(1) N.O.	1N	
P10DLB-AL	\$149.00	PDF	Ø 8.5mm plunger, 2mm round	Threaded	M10×0.5	10mm	(1) N.C.	1N	
Straight Touch With Ball Bearing									
P10DHA-TML	\$312.00	PDF	Ø 2.5mm plunger, 8mm roller	Threaded	M14×0.5	3mm	(1) N.O.	1N	Cable 3m [9.8ft]
P10DHB-TML	\$312.00	PDF	Ø 2.5mm plunger, 8mm roller	Threaded	M14×0.5	3mm	(1) N.C.	1N	
P10DHLTB-TML	\$343.00	PDF	Ø 2.5mm plunger, 8mm roller	Threaded	M14×0.5	10mm	(1) N.C.	1N	

* Ø = diameter, SR = surface radius

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





Precision Limit Switches

High Precision Touch Limit Switches

High Precision Touch Limit Switches Specifications				
Series	P08	P10	P10DH	P10DHL
Environmental				
Degree of Protection	IP67			
Temperature Range	Operating: 0 to 80°C [32 to 176°F] (Ice-free)			
Mechanical Ratings				
Enclosure Material	303 Stainless Steel			
Pretravel	0*	P10DA / P10DHA: 0.2 mm P10DB / P10DHB: 0*		0*
Torque (for nuts on threaded barrels, set screws on smooth barrels)	4 N•m (2.95 lb•ft)	8 N•m (5.90 lb•ft)	10 N•m (7.38 lb•ft)	
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	Both On–Off, Off–On: 0.0005 mm (range)**			
Recommended Minimum Operating Speed	50mm/minute			
Electrical Ratings				
Contact Life	3 million operations			
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 Oil resistant Ø5/2 cores (P08: Ø4/2 cores), tensile strength 30N, minimum bending R7, 20AWG			
Indicating	-AL: LED indicator (mounted in cable 120mm from the switch)			

* Adjust the installed location of the switch by the signal switching point.

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

Circuit Diagrams

Without LED	With LED (-AL 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>