

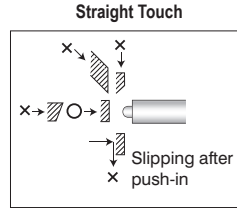


# Precision Limit Switches

## Precision Straight Touch Limit Switches

### Features

- Ultra-small design (M5 or Ø5)
- 3 micron (µm) repeat accuracy
- No movement differential
- Dustproof / water-resistant (IP67) models available
- Stainless steel housing
- Metal bearing

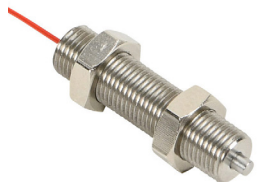


O indicates correct target approach and orientation.  
X indicates approach and orientation that should be avoided.

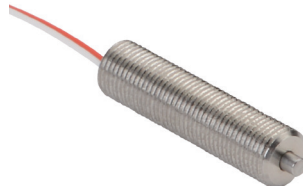
Precision Straight Touch Limit Switches Selection Chart									
Part Number	Price	Drawing Link	Actuator/Head Type*	Barrel	Barrel Diameter/Thread*	Stroke	Switching Output	Contact Force	Connection Type
<a href="#">PT5M1WA</a>	\$93.00	<a href="#">PDF</a>	Ø 1.5mm plunger, SR 2mm	Threaded	M5×0.5	1.5mm	(1) N.O.	0.5N	Core wire, 0.5m [1.6ft]
<a href="#">PT5M3WA</a>	\$72.00	<a href="#">PDF</a>	Ø 1.5mm plunger, SR 2mm			1.5mm	(1) N.O.	0.5N	
<a href="#">PT5M3WB</a>	\$72.00	<a href="#">PDF</a>	Ø 1.5mm plunger, SR 2mm			1.5mm	(1) N.C.	0.5N	
<a href="#">PT5M3CB</a>	\$85.00	<a href="#">PDF</a>	Ø1.5mm plunger, SR 2mm			1.5mm	(1) N.C.	0.5N	
<a href="#">PT5M3CB-L</a>	\$86.00	<a href="#">PDF</a>	Ø 1.5mm plunger, SR 2mm			1.5mm	(1) N.C.	0.5N	
<a href="#">PT5S3CB-L</a>	\$81.00	<a href="#">PDF</a>	Ø 1.5mm plunger, SR 2mm	Smooth	Ø 5 mm	1.5mm	(1) N.C.	0.5N	Cable, 2m [6.5ft]
<a href="#">PTP5M3CB-B</a>	\$101.00	<a href="#">PDF</a>	Ø 1.5mm plunger, Ø 3mm flat	Threaded	M5×0.5	1.5mm	(1) N.C.	0.8N	
<a href="#">PTP5M3CB-L</a>	\$94.00	<a href="#">PDF</a>	Ø 11.5mm plunger, SR 2mm	Threaded		1.5mm	(1) N.C.	0.8N	
<a href="#">PTP5S3CB-L</a>	\$88.00	<a href="#">PDF</a>	Ø 1.5mm plunger, SR 2mm	Smooth	Ø 5 mm	1.5mm	(1) N.C.	0.8N	

\* Ø = diameter, SR = surface radius

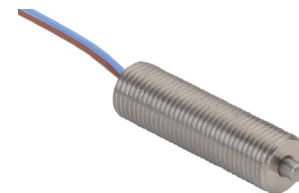
-L: LED indicator (mounted in cable 120mm from the switch)



[PT5M1WA](#)



[PT5M3WA](#)



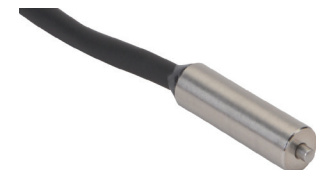
[PT5M3WB](#)



[PT5M3CB](#)



[PTP5M3CB-L](#)



[PTP5S3CB-L](#)



[PTP5M3CB-B](#)



[PTP5M3CB-L](#)



[PTP5S3CB-L](#)



# Precision Limit Switches

Precision Straight Touch Limit Switches Specifications		
Series	PT5x3xx	PTP5x3CB
<b>Environmental</b>		
Degree of Protection	IP40	IP67
Temperature Range	Operating: 0 to 80°C [32 to 176°F] (Ice-free)	
<b>Mechanical Ratings</b>		
Enclosure Material	303 Stainless Steel	
Pretravel	0* (PT5M3WA and PT5M1WA about 0.3 mm)	
Torque (for nuts on threaded barrels, set screws on smooth barrels)	1 N·m	
Vibration	10–55 Hz total amplitude 1.5 for X, Y, Z each direction	
Shock	300 m/s <sup>2</sup> for X, Y, Z each direction	
<b>Electrical Ratings</b>		
Contact Life	3 million operations	
Repeat Accuracy	Both On–Off, Off–On: 0.003 mm**	
Recommended Minimum Operating Speed	50 mm/minute	
Contact Voltage	5–24 VDC	
Steady Current Rating	10mA or less	
Max In-rush Current Rating	20mA without LED indicator, 10mA with LED indicator	
Connection Type	PTxxxWx: Core-wire cable, 0.5m (x2) Oil resistant Ø 0.6 Tensile strength 15N. PTxxxCB: Cable, 2m Oil-resistant Ø2.8/2 cores Tensile strength 30N, Minimum bending R7.	
Indicating	-L models: 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 (-L models)
<p>Normally open (N.O.)</p>	
<p>Normally closed (N.C.)</p>	<p>Normally closed (N.C.)</p> <p>LED Normally On</p>