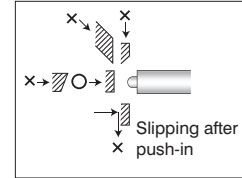


Precision Limit Switches

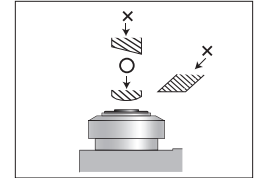
High Precision Touch and Tool Setter Switches

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

Straight Touch



Tool Setter



○ indicates correct target approach and orientation.
 × indicates approach and orientation that should be avoided.

High Precision Touch and Tool Setter Switches Selection Chart										
Part Number	Price	Actuator/Head Type*	Barrel Type	Barrel Diameter/Thread	Stroke	Switching Output	Contact Force	Sensor Dimension	Connection Type	Photo
Straight Touch										
P085DB-AL	\$116.00	Ø 5.5 mm plunger, SR 1.0 mm	Threaded	M8×0.5	3mm	N.C.	1N	Figure 1	Cable, 3m length	A
P10DB-AL	\$116.00			M10×0.5		N.O.		Figure 2		B
P10DA-AL	\$116.00			M10×0.5		N.O.		Figure 3		C
Tool Setter										
P11DDB-DULD	\$145.50	Ø 16mm plunger, Ø 5mm flat	NA	NA	3mm	N.C.	1.5 N	Figure 4	Cable, 3m length	D

* Ø = diameter, SR = surface radius

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

-xxLD: LED indicator (attached to sensor)



A



B



C



D

Precision Limit Switches Dimensions

High Precision Touch and Tool Setter: P08 / P10 / P11 Series

Dimensions

mm [inches]

Figure 1
P085DB-AL

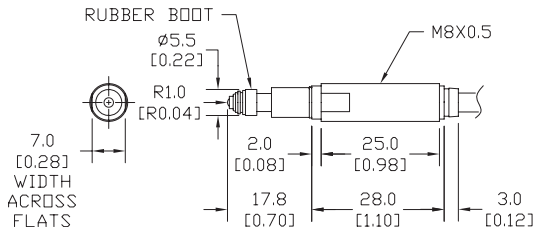


Figure 2
P10DB-AL

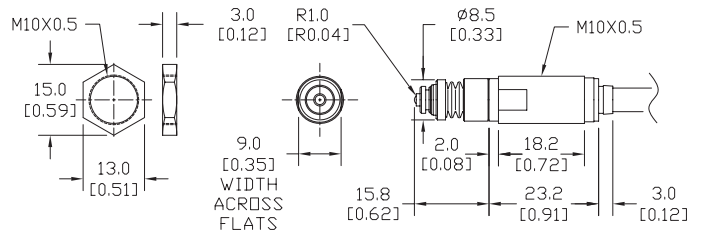


Figure 3
P10DA-AL

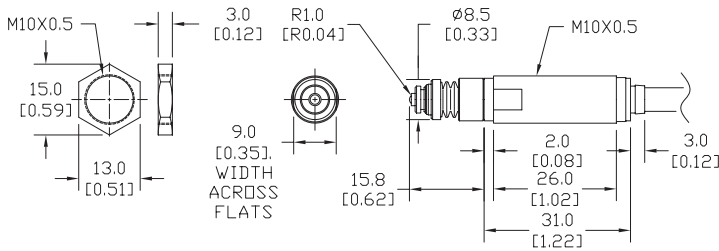
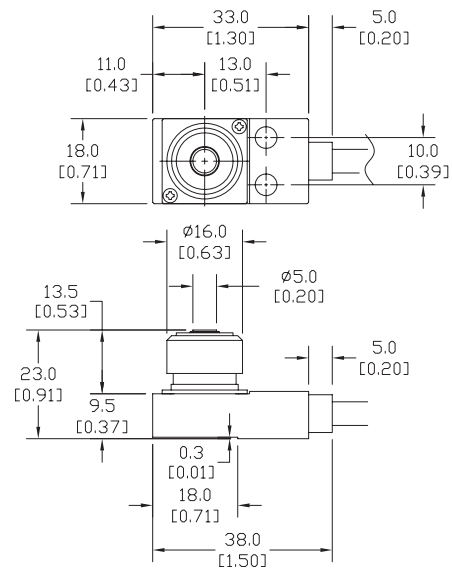


Figure 4
P11DDB-DULD



See our website, www.AutomationDirect.com, for complete Engineering drawings.

Precision Limit Switches

High Precision Touch and Tool Setter Switches Specifications			
	P08	P10	P11
Environmental			
Degree of Protection	IP67		
Temperature Range	Operating: 0–80°C (32–176°F) (Ice-free)		
Mechanical Ratings			
Enclosure Material	303 Stainless Steel		Aluminum
Pretravel	0*	P10DA: 0.2 mm P10DB: 0*	0*
Torque (for nuts on threaded barrels, set screws on smooth barrels)	4 N·m	8 N·m	N/A
Oscillation	10–55Hz total amplitude 1.5 for X, Y, Z each direction		
Impact	300 m/s ² for X, Y, Z each direction		
Electrical Ratings			
Contact Life	3 million operations		
Repeat Accuracy	Both On–Off, Off–On: 0.0005 mm (range)**		
Recommended Minimum Operating Speed	10 mm/minute		
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: 3m Oil resistant Ø5/2 cores (P08: Ø4/2 cores), Tensile strength 30N, minimum bending R7.		
Indicating	-L: LED indicator (mounted in cable 120mm from the switch)		LD: LED indicator (attached to sensor)

* 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
<p>Normally open (NO)</p>	<p>Normally open (NO)</p> <p>LED Normally Off</p>
<p>Normally closed (NC)</p>	<p>Normally closed (NC)</p> <p>LED Normally On</p>