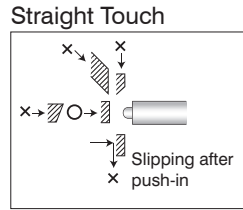


Precision Limit Switches

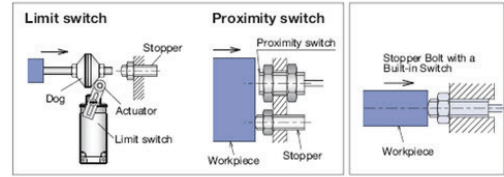
Mini Stopper Precision Limit Switches

- Mini Stopper switch
- Provides higher contact force ideal for indexing/positioning
- 10 micron (μm) repeat accuracy
- No movement differential
- No temperature drift



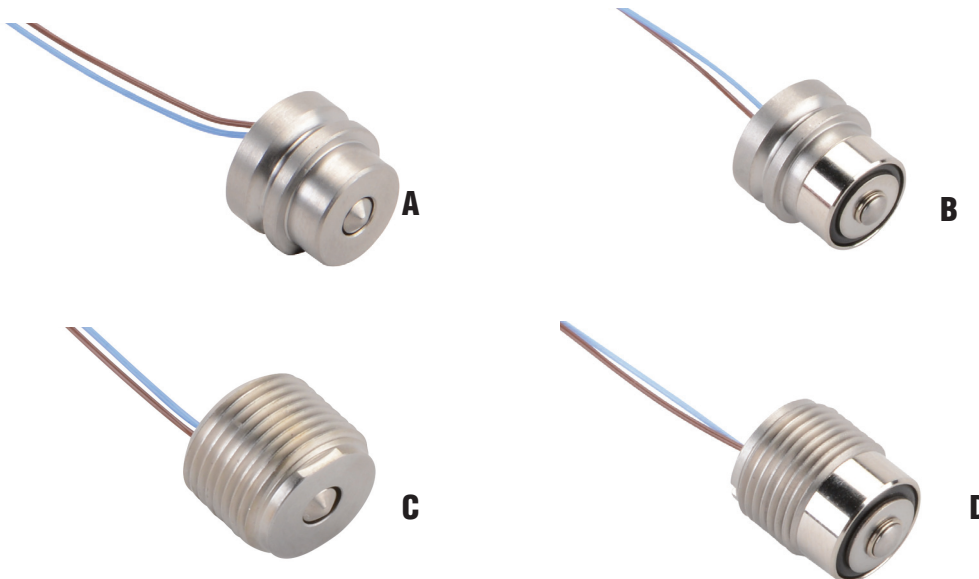
O indicates correct target approach and orientation.
 X indicates approach and orientation that should be avoided.

Stopper Bolt Limit Switches can reduce parts count conventional switches **stopper bolt switch**



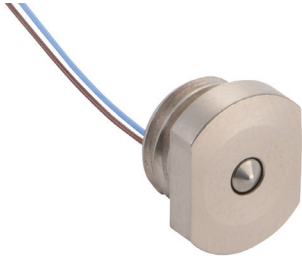
Mini Stopper Precision Limit Switches Selection Chart										
Part Number	Price	Actuator/Head Type*	Barrel Type	Barrel Diameter/Thread	Stroke	Switching Output	Contact Force	Sensor Dimension	Connection Type	Photo
Stopper										
STM13A	\$37.00	Ø 3mm plunger	smooth	Ø10	0.5 mm	N.O.	0.8 N	Figure 1	Core wire, 0.5 m length	A
STM63A	\$48.50	Ø 3mm plunger with boot	smooth	Ø11	0.3 mm		1N	Figure 2		B
STM31A	\$38.00	Ø 3mm plunger	threaded	M10×0.75	0.5 mm		0.8 N	Figure 3		C
STM81A	\$51.00	Ø 3mm plunger with boot	threaded	M10×0.75	0.3 mm		1N	Figure 4		D
STM33A	\$40.50	Ø 3mm plunger	threaded	M10×1.5	0.5 mm		0.8 N	Figure 5		E
STM83A	\$48.50	Ø 3mm plunger with boot	threaded	M10×1.5	0.3 mm		1N	Figure 6		F
STM14A-L	\$51.00	Ø 3mm plunger	smooth	Ø10	0.5 mm		0.8 N	Figure 7	Cable, 2m length	G
STM64A-L	\$61.00	Ø 3mm plunger with boot	smooth	Ø11	0.3 mm		1N	Figure 8		H
STM32A-L	\$56.00	Ø 3mm plunger	threaded	M10×0.75	0.5 mm		0.8 N	Figure 9		I
STM82A-L	\$65.00	Ø 3mm plunger with boot	threaded	M10×0.75	0.3 mm		1N	Figure 10		J
STM34A-L	\$57.00	Ø 3mm plunger	threaded	M10×1.5	0.5 mm		0.8 N	Figure 11		K
STM84A-L	\$68.00	Ø 3mm plunger with boot	threaded	M10×1.5	0.3 mm		1N	Figure 12		L

* Ø = diameter, SR = surface radius

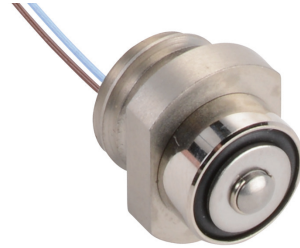


Precision Limit Switches Dimensions

Mini Stopper: STM Series



E



F



G



H



I



J



K



L

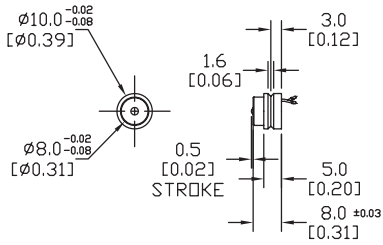
Precision Limit Switches Dimensions

Mini Stopper: STM Series

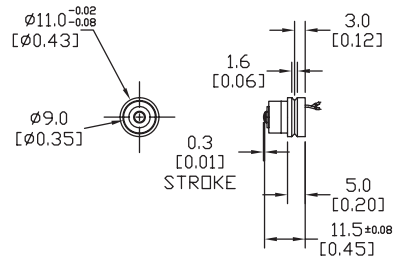
Dimensions

mm [inches]

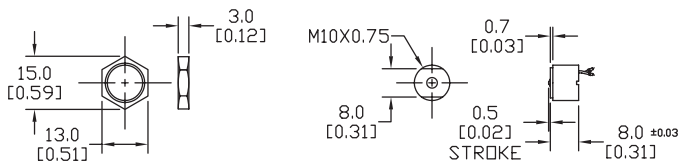
**Figure 1
STM13A**



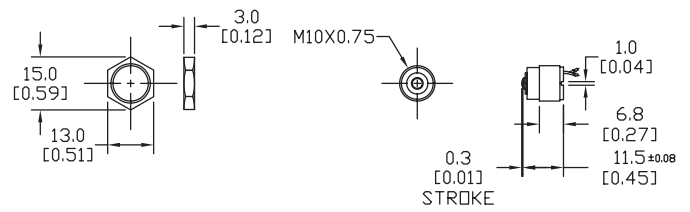
**Figure 2
STM63A**



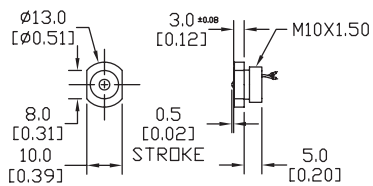
**Figure 3
STM31A**



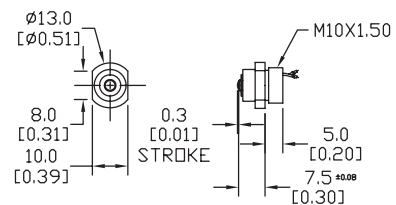
**Figure 4
STM81A**



**Figure 5
STM33A**



**Figure 6
STM83A**



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

Precision Limit Switches Dimensions

Mini Stopper: STM Series

Dimensions

mm [inches]

Figure 7
STM14A-L

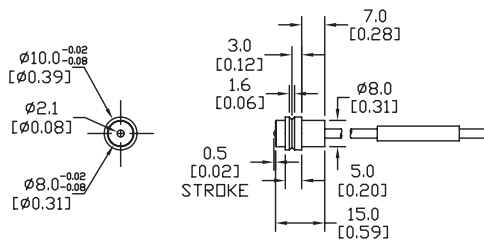


Figure 8
STM64A-L

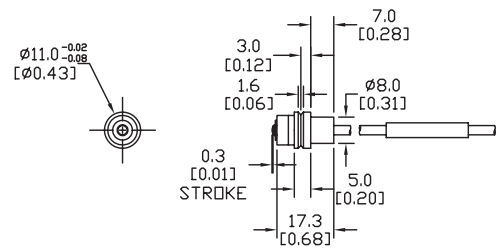


Figure 9
STM32A-L

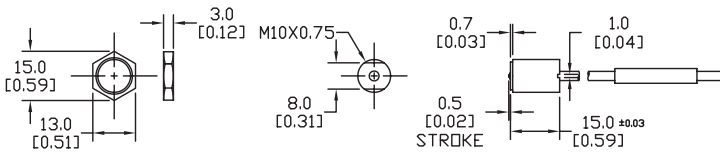


Figure 10
STM82A-L

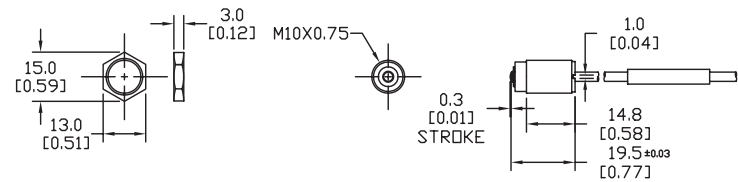


Figure 11
STM34A-L

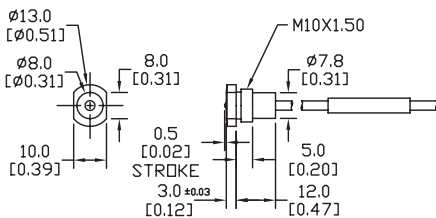
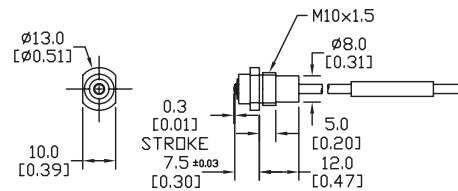


Figure 12
STM84A-L



Precision Limit Switches

Mini Stopper Precision Limit Switches Specifications	
<i>STM</i>	
Environmental	
Degree of Protection	IP44 (STM13A, STM31A, STM33A, STM14A-L, STM32A-L, STM34A-L) IP67 (STM63A, STM81A, STM83A, STM64A-L, STM82A-L, STM84A-L)
Temperature Range	Operating: 0 to 80°C (32 to 392°F) (Ice-free)
Mechanical Ratings	
Enclosure Material	Stainless Steel
Torque (for nuts on threaded barrels, set screws on smooth barrels)	10Nm
Oscillation	10–55Hz total amplitude 1.5 for X, Y, Z each direction
Impact	300 m/s ² for X, Y, Z each direction
Withstand Load	3000N
Repeat Accuracy	Both On Off, Off On/ 0.01 (range) (At operating speed 50-200mm/min) *2
Recommended Minimum Operating Speed	10 mm/minute
Electrical Ratings	
Contact Life	10 million (No bungle caused by vibration and use under contact rating)
Impact Resistance	0.2J
Contact Voltage	5–24VDC
Steady Current Rating	10mA or less
Max In-rush Current Rating	20mA
Connection Type	Standard length 2m or 0.5 m Oil resistant 2.8 / 2 cores, Tensile strength 30N, minimum bending R7
Indicating	-L: 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.

** At normal temperature (0–80°C [32–176°F]).

Circuit Diagrams

