



new

MiniSlide™ motorized with Can-Stack Stepper

small size, big power

Exceedingly configurable, simple to integrate MiniSlide™ assembly is ideally suited for small lab and automation equipment.

Compact, low profile

Economically priced

Ø 20mm (.79-in) 19000 Series Motor

Step Angle	7.5°	
Wiring	Bipolar	
Winding Voltage	5 VDC	12 VDC
Current (RMS)/phase	350 mA	160 mA
Resistance/phase	14.0 Ω	74.5 Ω
Inductance/phase	6.24 mH	31.2 mH
Power Consumption	3.38 W	
Insulation Class	Class B	
Weight	1.24 oz (35 g)	
Insulation Resistance	20 Ω	

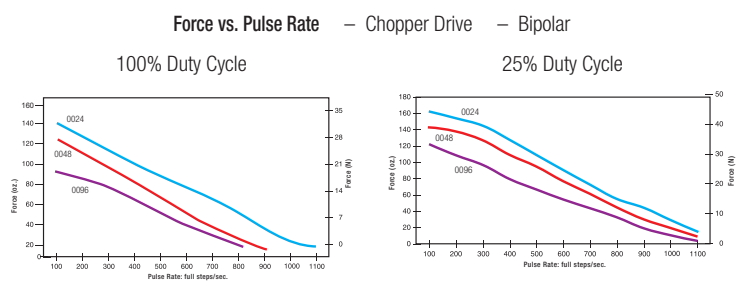
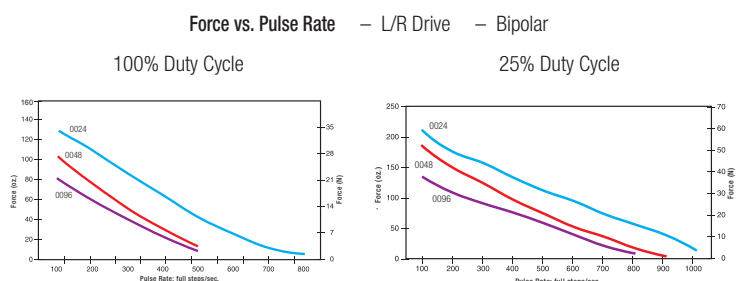
MiniSlide is also available with Size 8 Hybrid Stepper Linear Actuator.

MiniSlide Load Specifications

Design Payload (mass)	2.3kg [5 lbs]
Axial Force	45N [10 lbf]
Roll Moment*	1.13N-m [10 lbf-in]
Pitch Moment*	1.13N-m [10 lbf-in]
Yaw Moment*	0.56N-m [5 lbf-in]
Repeatability	+/-25µm [0.001 in]

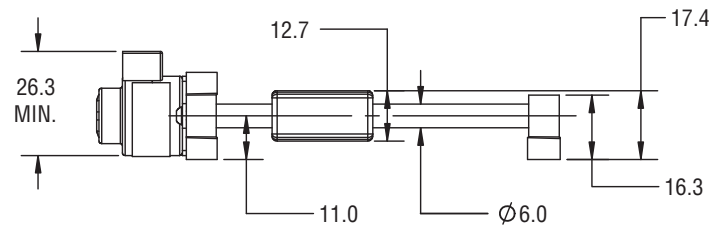
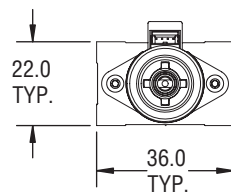
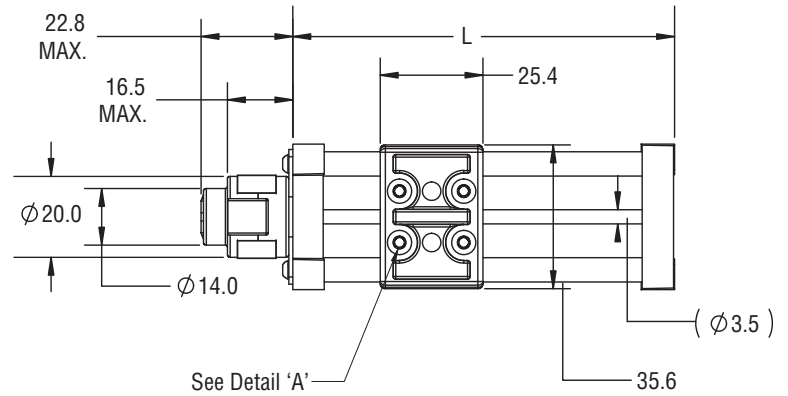
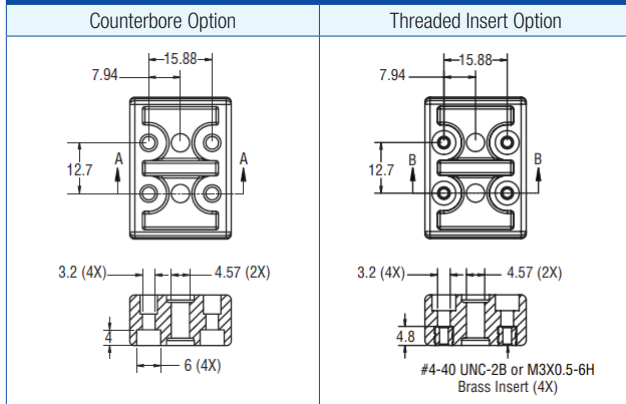
* Moment data based on 0.5° deflection

Performance Curves

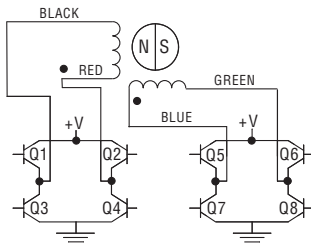


NOTE: All chopper drive curves were created with a 5 volt motor and a 40 volt power supply. Ramping can increase the performance of a motor either by increasing the top speed or getting a heavier load accelerated up to speed faster. Also, deceleration can be used to stop the motor without overshoot. With L/R drives peak force and speeds are reduced, using a unipolar drive will yield a further 30% force reduction.

Detail A: Carriage Mounting Options



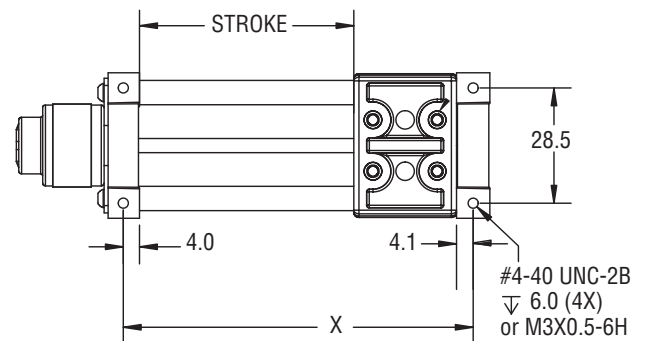
Wiring: Bipolar



Can-Stack Motor Stepping Sequence

Bipolar Step	Q2-Q3	Q1-Q4	Q6-Q7	Q5-Q8
1	ON	OFF	ON	OFF
2	OFF	ON	ON	OFF
3	OFF	ON	OFF	ON
4	ON	OFF	OFF	ON
1	ON	OFF	ON	OFF

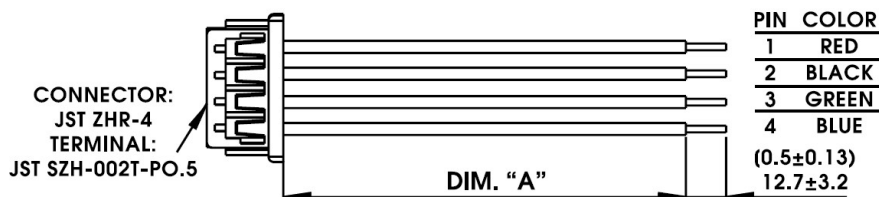
Note: Half stepping is accomplished by inserting an off state between transitioning phases.



Dimensions

Stroke	Rail Length "L"	Mounting Holes "X"
25 mm	69.4 mm	61.5 mm
50 mm	94.4 mm	86.5 mm
75 mm	119.4 mm	111.5 mm
100 mm	144.4 mm	136.5 mm

Connector



PIN	COLOR
1	RED
2	BLACK
3	GREEN
4	BLUE

Part Number	Dimension "A"
56-1318-4	(24 ±0.39) 610 ±10 mm
56-1318-3	(18 ±0.39) 450 ±10 mm
56-1318-2	(12 ±0.39) 305 ±10 mm
56-1318-1	(6 ±0.39) 150 ±10 mm

Ordering Part Numbers for MiniSlide™ motorized with 19000 Series Can-Stack Motor

MSA	02	K	C	0020		XXX
Prefix	Frame Size	Coating	Motor	Nominal Thread Lead Code		Suffix
MSA = Mini Slide Actuator	02 = 1/8" Screws	K = TFE Kerkote B = TFE Black Ice G = Grease S = No Lubricant	C = 20mm G4 19000 Can-Stack Stepper Motor	0020 = 1/2mm lead 0039 = 1mm lead 0079 = 2mm lead 0157 = 4mm lead 0315 = 8mm lead	0012 = 0.012" lead 0024 = 0.024" lead 0048 = 0.048" lead 0096 = 0.096" lead	805 = 50mm stroke M3 mounting 810 = 100mm stroke M3 mounting 905 = 50mm stroke #4-40 mounting 910 = 100mm stroke #4-40 mounting XXX = Unique identifier*

NOTE: Dashes must be included in the Part Number (–) as shown above. For assistance call our Engineering Team at 203 756 7441.
* Unique Identifier can be used to indicate additional options and/or product modifications.