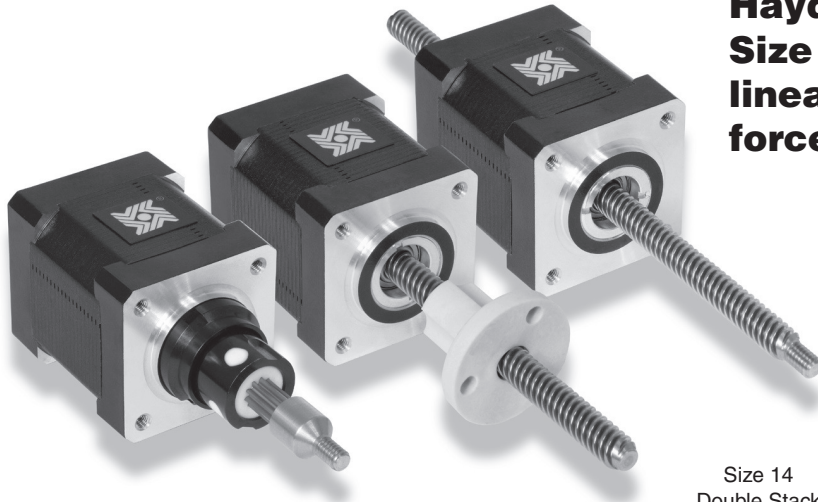


35000 Series: Size 14 Double Stack Linear Actuator



Haydon Kerk Motion Solutions, Inc. • www.HaydonKerk.com • Phone: 800.243.2715 • International: 203.756.7441

HYBRID LINEAR ACTUATOR
STEPPER MOTORS



Size 14 Double Stack
Captive Shaft

Size 14 Double Stack
External Linear

Size 14
Double Stack
Non-Captive
Shaft

Haydon™ 35000 Series Size 14 Double Stack hybrid linear actuators have improve force and performance.

The Size 14 Double Stack designs deliver exceptional performance and new linear motion design opportunities.

Three designs are available, captive, non-captive and external linear versions. The 35000 Series is available in a wide variety of resolutions - from 0.000625-in (.0158 mm) per step to 0.005-in (.127 mm) per step. The motors can also be microstepped for even finer resolutions. The Size 14 actuator delivers thrust of up to 50 lbs. (222 N).

Salient Characteristics

Size 14: 3 mm (1.4-in) Double Stack Hybrid Linear Actuator (1.8° Step Angle)			
Part No.	Captive	35M4(X)-V	
	Non-captive	35L4(X)-V	
	External Lin.	E35M4(X)-V	
Wiring		Bipolar	
Winding voltage	2.33 VDC	5 VDC	12 VDC
Current/phase	2 A	910 mA	380 mA
Resistance/phase	1.2 Ω	5.5 Ω	31.6 Ω
Inductance/phase	1.95 mH	7.63 mH	65.1 mH
Power consumption	9.1 W Total		
Insulation Class	Class B (Class F available)		
Weight	8.5 oz (240 g)		
Insulation resistance	20 MΩ		
Max. Load Limit	50 lbs (222 N)		

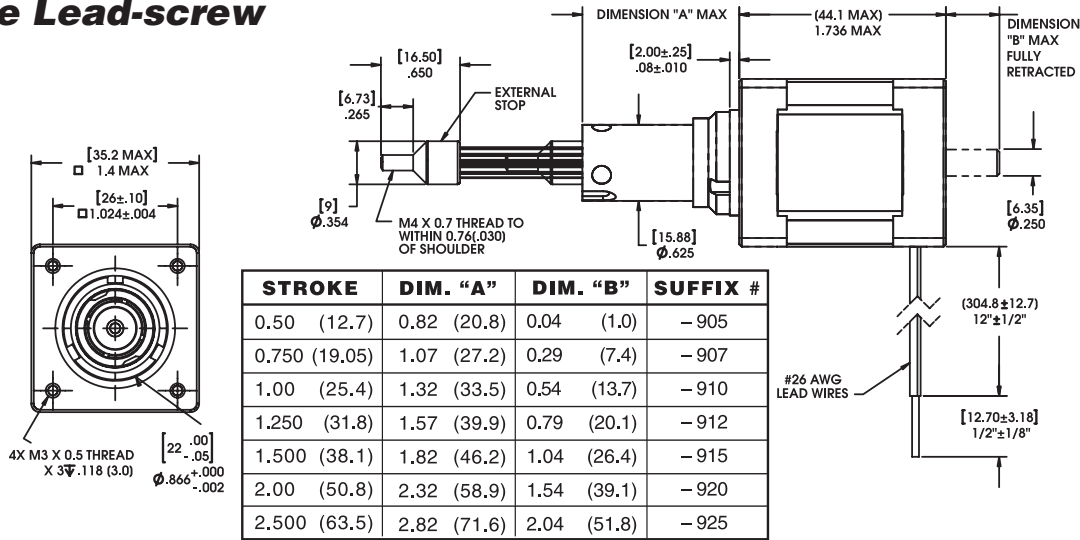
Linear Travel / Step		Order Code I.D.
Screw Ø.250" (6.35 mm) inches	mm	
.000625	.0158*	B
.00125	.0317*	C
.0025	.0635	Y
.00375	.0953	AG
.005	.127	Z

*Values truncated

Standard motors are Class B rated for maximum temperature of 130°C.

Special drive considerations may be necessary when leaving shaft fully extended or fully retracted.

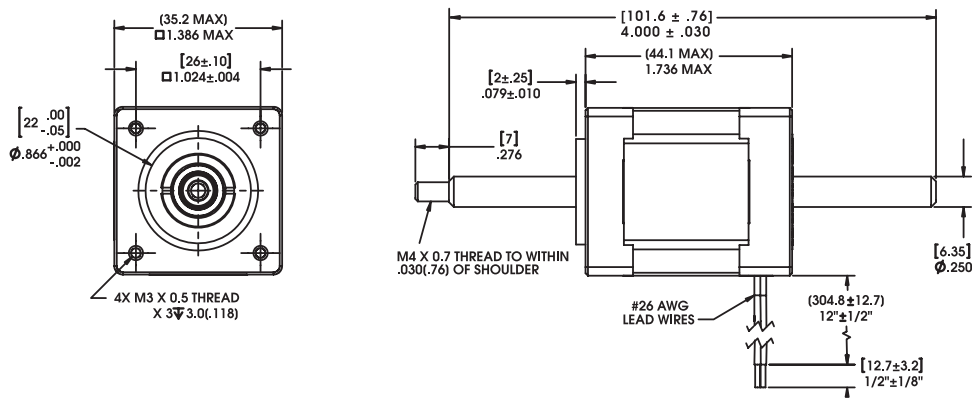
Captive Lead-screw



Integrated connector option, see page 121

HYBRID LINEAR ACTUATOR
STEPPER MOTORS

Non-Captive Lead-screw

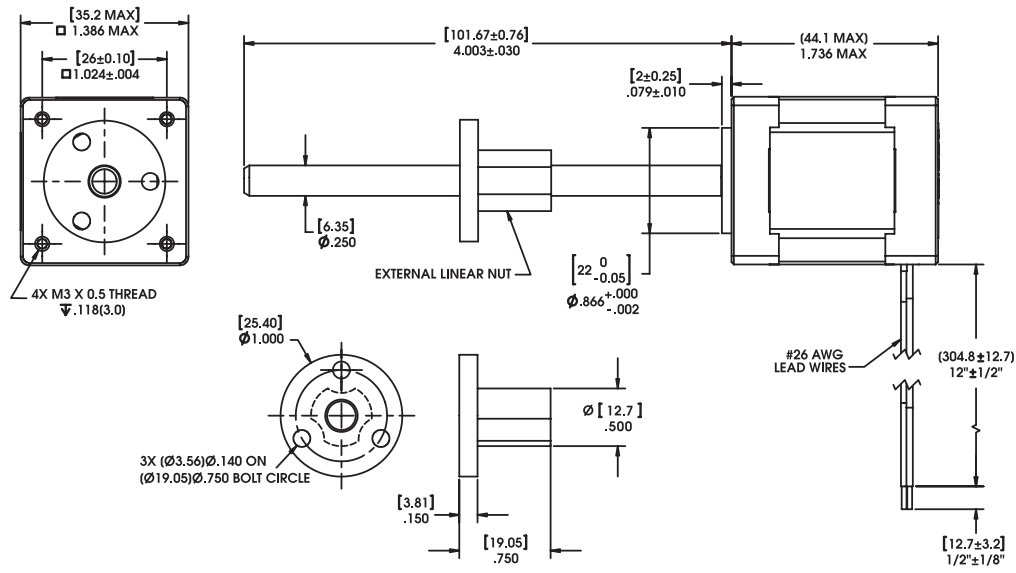


Up to 6-in (152 mm) standard screw lengths. Longer screw lengths are available.

Integrated connector option, see page 121

External Linear

Up to 6-in (152 mm) standard screw lengths. Longer screw lengths are available.



Integrated connector option, see page 121

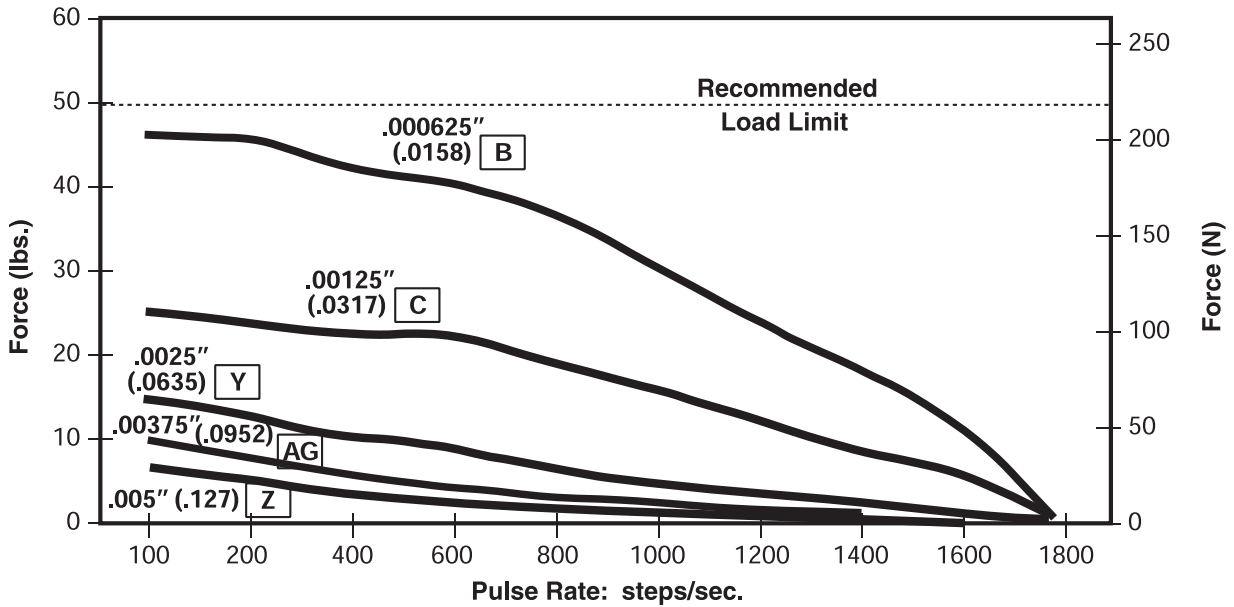
35000 Series: Size 14 Double Stack Performance Curves



Haydon Kerk Motion Solutions, Inc. • www.HaydonKerk.com • Phone: 800.243.2715 • International: 203.756.7441

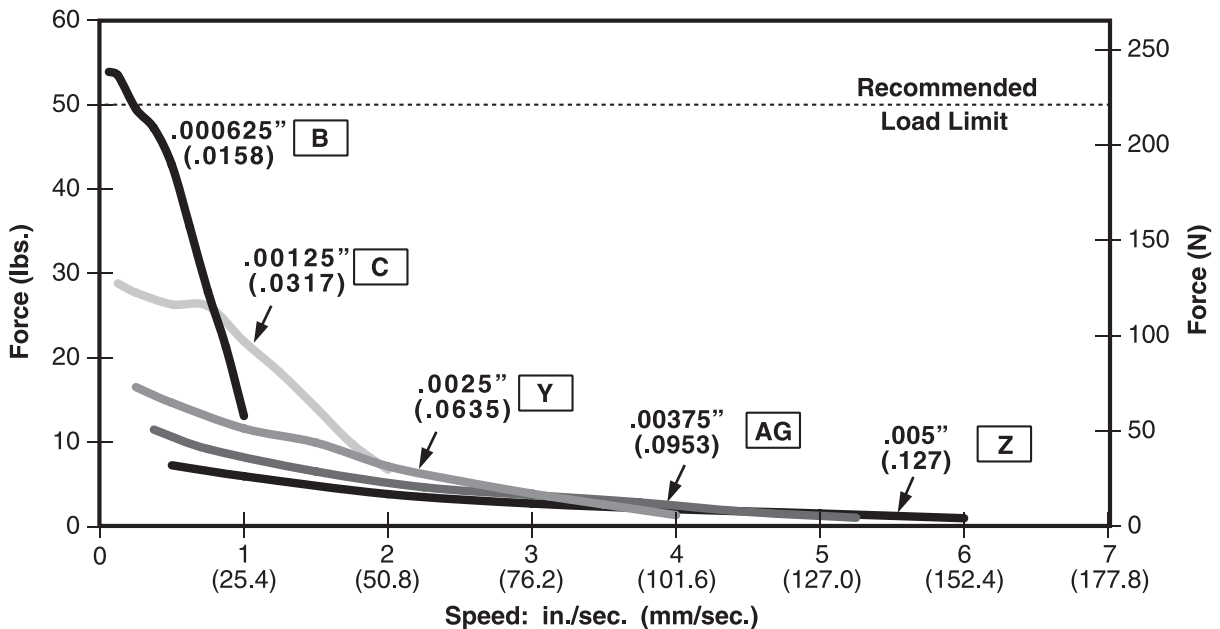
FORCE vs. PULSE RATE Bipolar • Chopper • 100% Duty Cycle

Ø .250 (6.35) Lead-screw



FORCE vs. LINEAR VELOCITY Bipolar • Chopper • 100% Duty Cycle

Ø .250 (6.35) Lead-screw



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.