

# Z26000 Series Ø 26 mm (1-in) Can-Stack Stepper Motor Linear Actuators

**Designed to accommodate high volume applications**

Z26000 Series motors utilize rare earth (neodymium) magnets. Also, available in a special "earless" configuration without a mounting flange. All units are built with durable dual ball bearings.

**Multiple versions available**

- Captive
- Non-Captive
- External Linear



**Specifications**

Ø 26 mm (1-in) Z-Series Motor										
Part No.	Captive	Z2644	-	-	-	-	-	-	-	†
	Non-Captive	Z2634	-	-	-	-	-	-	-	†
	External Linear*	Z2644	-	-	-	-	-	-	-	9 ††
Wiring		Bipolar				Unipolar*				
Step angle		7.5°		15°		7.5°		15°		
Winding Voltage		5 VDC	12 VDC	5 VDC	12 VDC	5 VDC	12 VDC	5 VDC	12 VDC	
Current (RMS)/phase		340 mA	140 mA	340 mA	140 mA	340 mA	140 mA	340 mA	140 mA	
Resistance/phase		14.7 Ω	84 Ω	14.7 Ω	84 Ω	14.7 Ω	84 Ω	14.7 Ω	84 Ω	
Inductance/phase		8.5 mH	55 mH	6.7 mH	44 mH	4.3 mH	24 mH	3.4 mH	19 mH	
Power Consumption		3.4 W								
Rotor Inertia		1.4 gcm <sup>2</sup>								
Insulation Class		Class B								
Weight		1.2 oz (34 g)								
Insulation Resistance		20 MΩ								

†Part numbering information on page 4. \*Unipolar drive gives approximately 40% less thrust compared to bipolar drive. \*\*When ordering Z-Series External Linear motors, add -900 to end of the Part Number.

Linear Travel / Step 15° Step Angle			Order Code I.D.
step	inches	mm	
7.5° Angle	0.0005	0.013	3
	0.001	0.0254	1
	0.002	0.051	2
15° Angle	0.00164	0.04166	AS
	0.002	0.051	2
	0.004	0.102	4

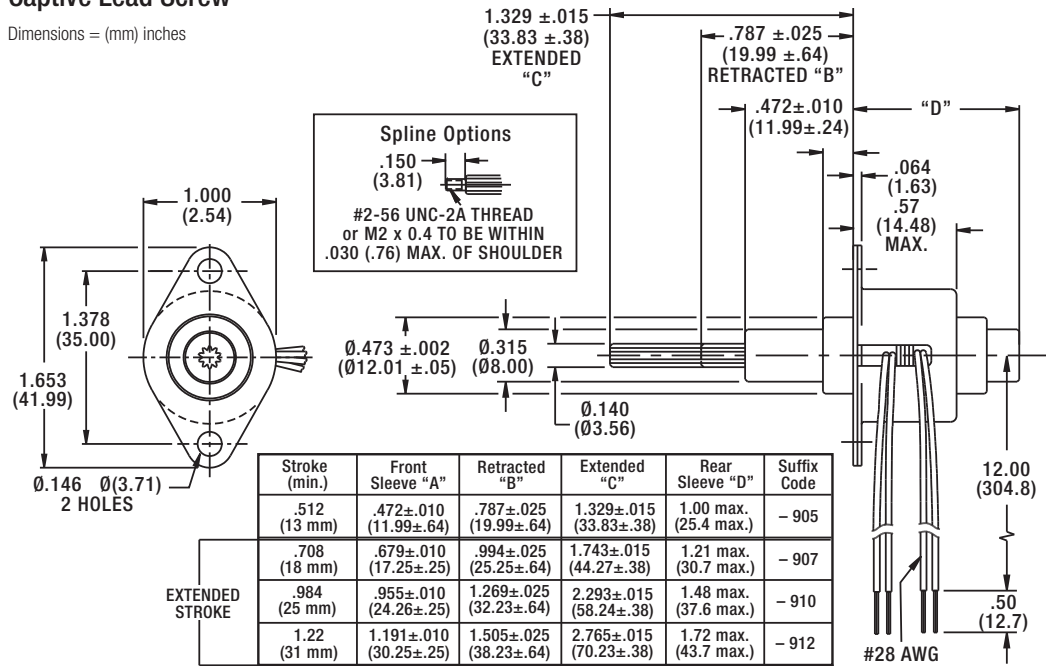
Special drive considerations may be necessary when leaving shaft fully extended or fully retracted. Standard motors are Class B rated for maximum temperature of 130° C (266° F).

Also available, specially engineered Z26000 (Ø 26 mm, 1-in) linear actuators that extend captive lead screw travel beyond 12.7 mm (1/2-in).



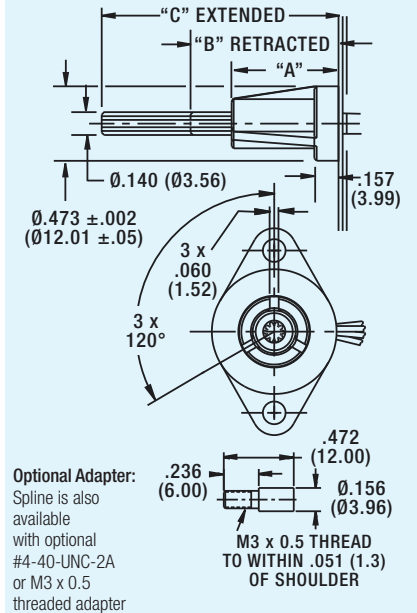
### Captive Lead Screw

Dimensions = (mm) inches



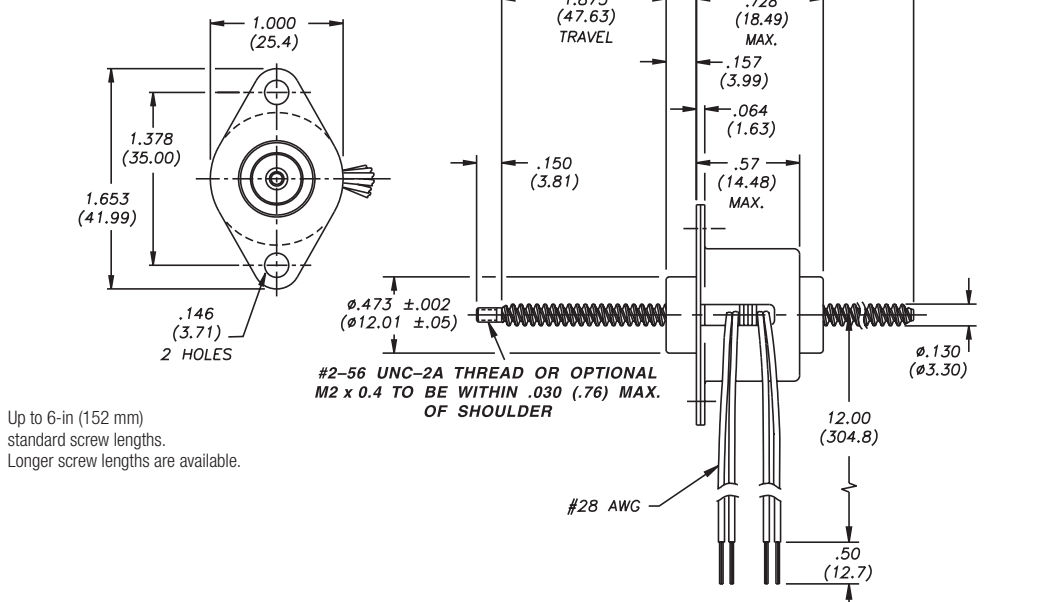
### Extended Stroke Sleeve

Dimensions = (mm) inches



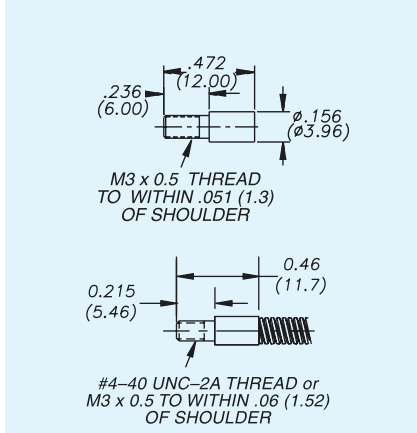
### Non-Captive Lead Screw

Dimensions = (mm) inches



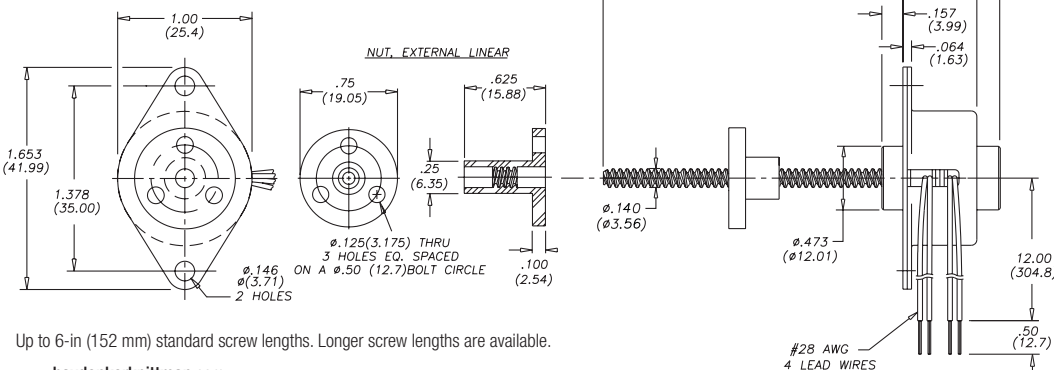
### Extended Stroke Sleeve

Dimensions = (mm) inches



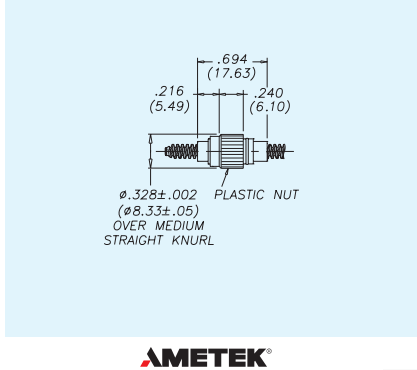
### External Linear

Dimensions = (mm) inches



### Linear Series Z26000 Nut Option

Dimensions = (mm) inches

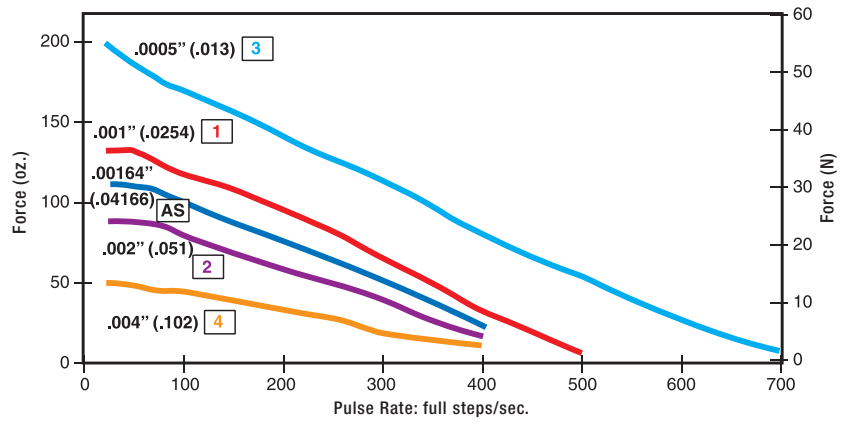


Up to 6-in (152 mm) standard screw lengths. Longer screw lengths are available.

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**FORCE vs. PULSE RATE**

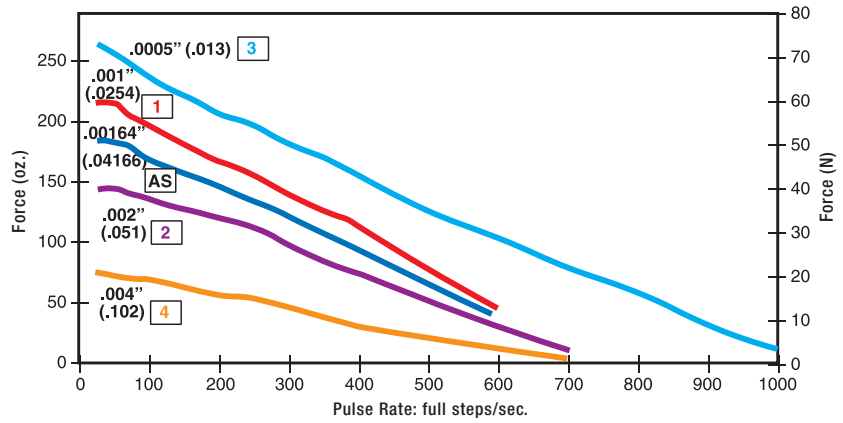
- L/R Drive
- Bipolar
- 100% Duty Cycle



**FORCE vs. PULSE RATE**

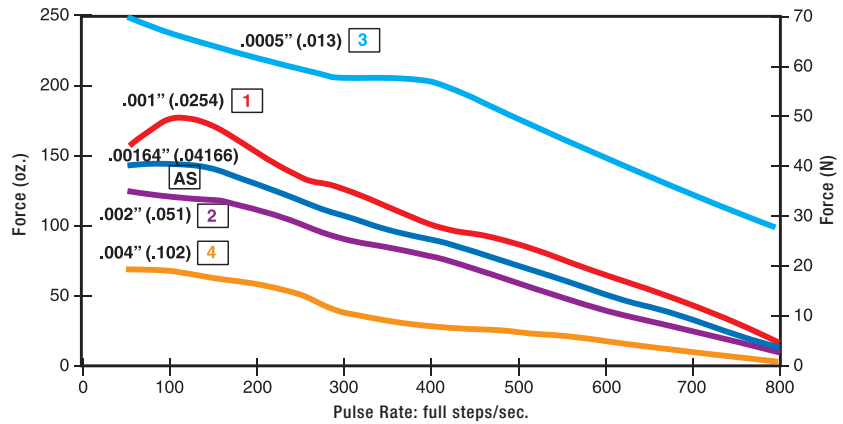
- L/R Drive
- Bipolar
- 25% Duty Cycle

Obtained by a special winding or by running a standard motor at double the rated current.



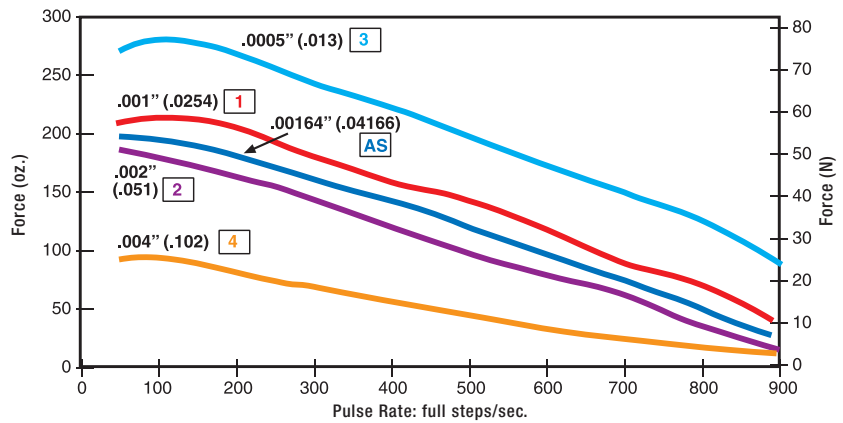
**FORCE vs. PULSE RATE**

- Chopper Drive
- Bipolar
- 100% Duty Cycle



**FORCE vs. PULSE RATE**

- Chopper Drive
- Bipolar
- 25% Duty Cycle



NOTE: All chopper drive curves were created with a 5 volt motor and a 40 volt power supply.

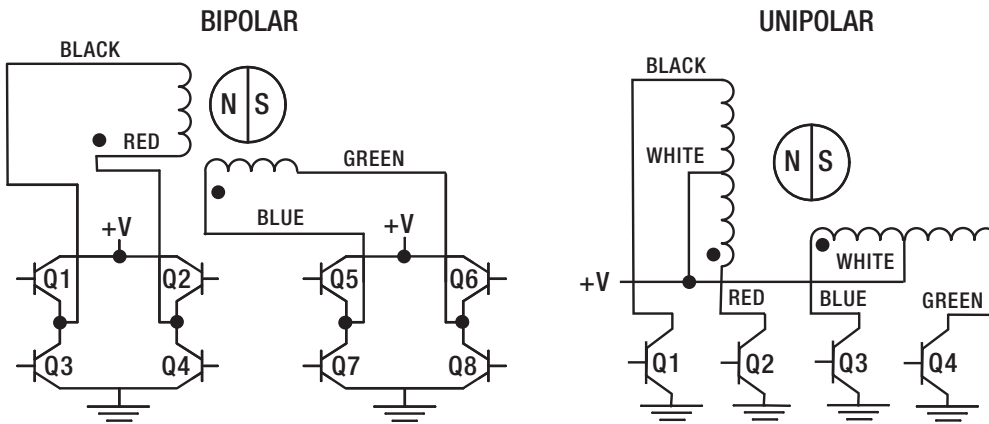
Ramping can increase the performance of a motor either by increasing the top speed or getting a heavier load accelerated up to speed faster. Also, deceleration can be used to stop the motor without overshoot.

Identifying the Can-Stack Number Codes when Ordering

Z	26	4	4	2	05	900
<b>Prefix</b> Z = Series Code	<b>Series Number Designation</b> 26 = 26000 (Series numbers represent approximate diameters of motor body)	<b>Style</b> 3 = 7.5° Non-Captive 4 = 7.5° Captive or External (use "E" or "K" Prefix for External version) 5 = 15° Captive or External (use "E" or "K" Prefix for External version) 8 = 15° Non-Captive	<b>Coils</b> 4 = Bipolar (4 wire) 6 = Unipolar (6 wire)	<b>Code ID Resolution Travel/Step</b> 1 = .001-in (.0254) 2 = .002-in (.051) 3 = .0005-in (.013) 4 = .004-in (.102) AS = .04166-in (.00164)	<b>Voltage</b> 05 = 5 VDC 12 = 12 VDC  Custom V available	<b>Suffix Stroke</b> Example: -900 used to code Z-Series external linear -XXX = Proprietary suffix assigned to a specific customer application. The identifier can apply to either a standard or custom part.

NOTE: Dashes must be included in Part Number (-) as shown above. For assistance call our Engineering Team at 203 756 7441.

Can-Stacks: Wiring



Can-Stacks: Stepping Sequence

	Bipolar	Q2-Q3	Q1-Q4	Q6-Q7	Q5-Q8
Step					
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

EXTEND CW
RETRACT CCW

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