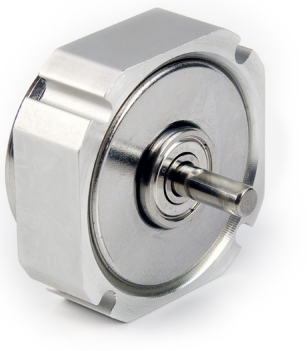
LIN ENGINEERING
MOTOR SPECIALISTS IN MOTION
A MOONS' COMPANY

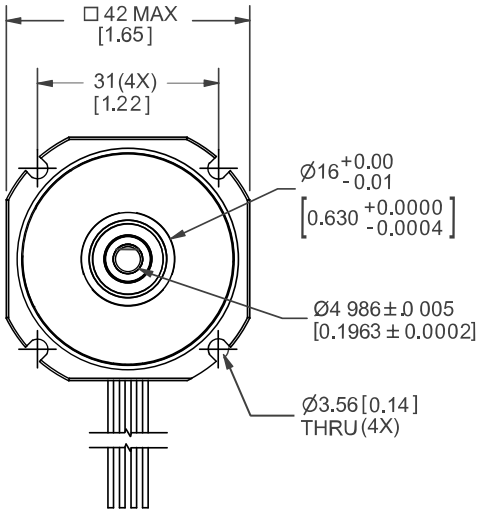
16245 Vineyard Blvd., Morgan Hill, CA 95037
Phone: (408) 919-0200 Fax: (408) 919-0201
Email: sales@linengineering.com | techsupport@linengineering.com
www.linengineering.com

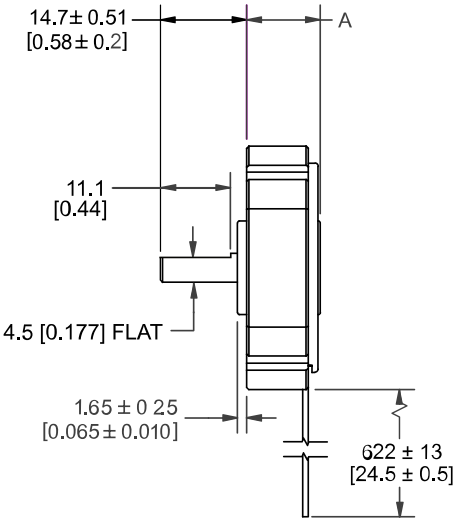


MOTOR SPECIFICATIONS

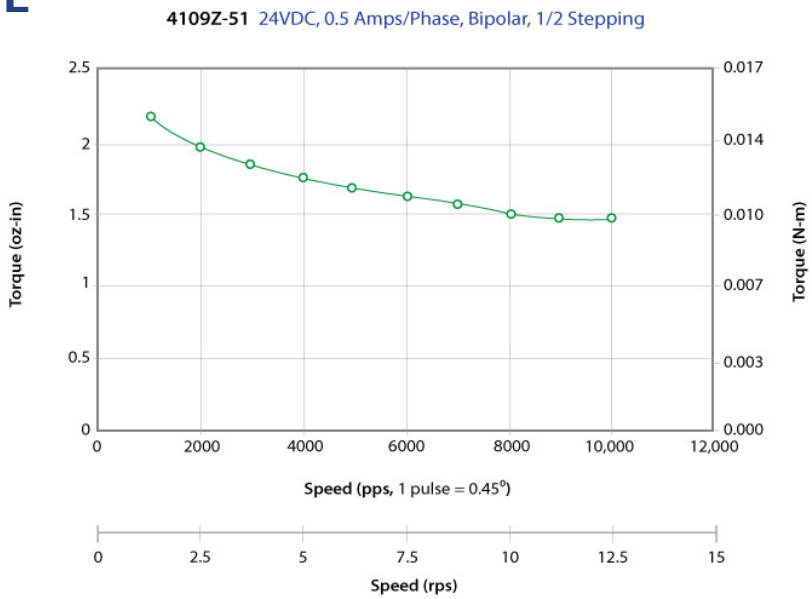
Part Number	**WO-4109Z-51**
Step Angle	0.9°
Frame Size	NEMA 17
Body Length (Dim. A)	0.49 in (12.5 mm)
Current	0.5 Amps/Phase
Holding Torque	3 oz-in (0.02 Nm)
Resistance	4.1 Ohms/Phase
Rotor Inertia	0.02 oz-in^2
Number of Leads	4
Connection	Bipolar
Weight	0.12 lbs (0.05 kg)

DIMENSIONS





PERFORMANCE CURVE



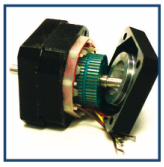
OPERATING SPECIFICATIONS

Radial Play	0.001” max @ 1 lbs load
End Play	0.003” max @ 2 lbs load
Shaft Run Out	0.002” TIR
Concentricity of Mounting Pilot to Shaft	0.003” TIR
Perpendicularity of Shaft to Mounting Face	0.003” TIR
Max Axial Load	6 lbs
Maximum Case Temperature	80 C
Ambient Temperature	-20° to 50° C
Storage Temperature	-20° to 100° C
Humidity Range	85% or less, non-condensing
Magnet Wire Insulation	Class B 130° C
Insulation Resistance	100MΩ at 500 VDC
Dielectric Strength	500 VAC for 1 minute

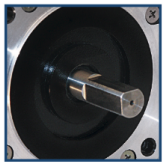
WIRING TABLE

COLOR	FUNCTION
Red	A+ Phase
Blue	A- Phase
Green	B + Phase
Black	B- Phase

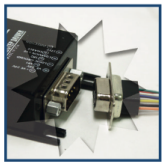
OPERATION & USAGE TIPS



Do not disassemble motors; a significant reduction in motor performance will occur.



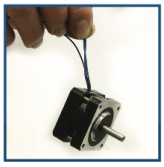
Do not machine shafts; this will have a negative effect on shaft run out and perpendicularity.



Do not disconnect motor from drive while in operation.



Do not use holding torque/detent torque of motor as a fail safe brake.



Do not hold motor by lead wires.



Do not exceed the rated current; this wil burn the motor.

FAILURE TO COMPLY WITH THESE RECOMMENDATIONS WILL VOID ALL WARRANTY TERMS

RECOMMENDED



Microstepping Driver
R208



Single Axis Controller + Driver
R256-RO

Motion Control, Solved.

MOTOR ENGINEERING & MANUFACTURING

Optimized For Your Application

Quick Prototype Turnaround

Small Batch to OEM Volume Production

US Based Support & Manufacturing