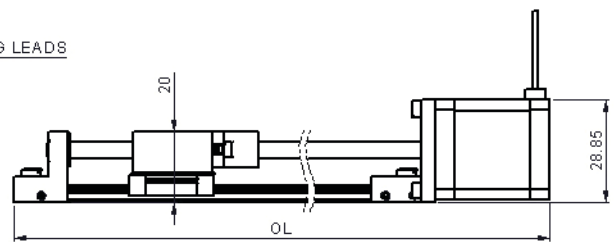
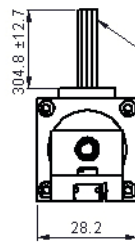
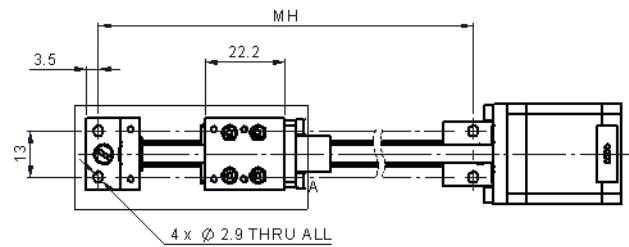
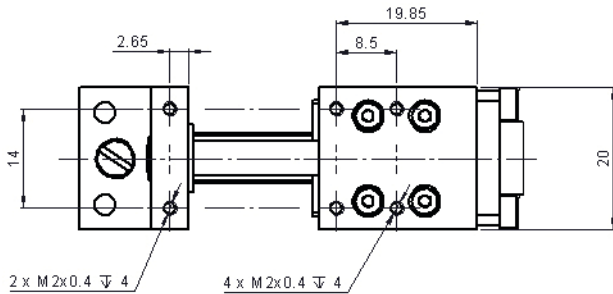
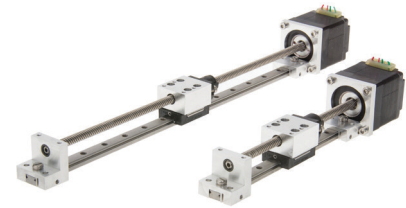


DATASHEET DS45 - Product Information

RLMA11 - Miniature Actuator

NEMA Size 11 Motor Driven Slide Assembly with a Low Profile Footprint

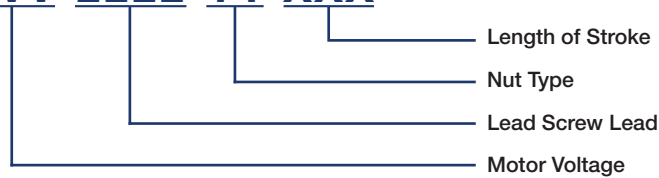


Key Features:

- Standard units supplied within two weeks
- A 20 mm carriage height allowing for a low profile footprint
- Two lead types available (coarse and fine)
- Fully customisable to suit multiple axes
- Low vacuum and cleanroom class versions available

Part Number Structure

RLMA11-VVV-LLLL-YY-XXX



Motor Selection

Motor Voltage 'VVV'	Voltage
021	2.1 V

Lead Selection

Lead 'LLLL'	Lead (mm)	Linear Travel/Step
M005	0.5	0.0025
0050	1.27	0.00635
0508	5.08	0.0254

Nut Selection

Nut Type 'YY'	Nut	Style
AB	Anti-backlash	LNTB
ST	Standard	LBF

Length of Stroke

Length of Stroke XXX (mm)	Actuator Overall Length OL (mm)	Actuator Mounting Holes Length MH (mm)
250	345.2	300
235	330.2	285
220	315.2	270
205	300.2	255
190	285.2	240
175	270.2	225
160	255.2	210
145	240.2	195
130	225.2	180
115	210.2	165
100	195.2	150
85*	180.2	135
70*	165.2	120
55*	150.2	105

*Non-standard options, please contact us for more information

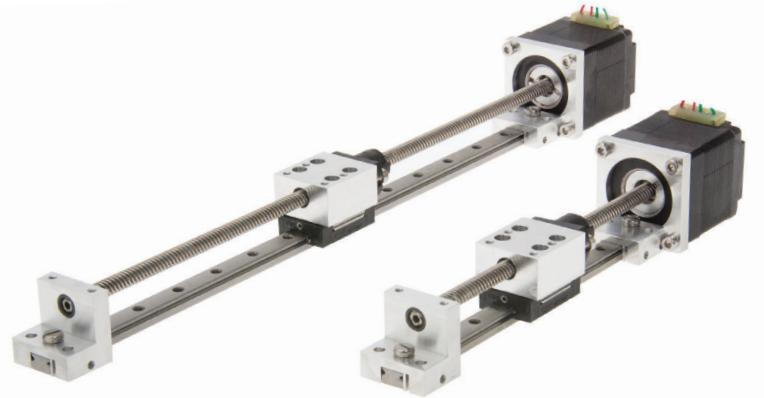
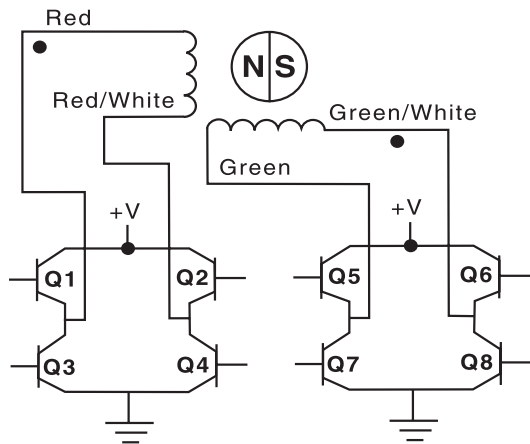
Motor Specification

Wiring	Bipolar
Winding Voltage (V)	2.1 VDC
Current (RMS) Each Phase	1.0 A
Resistance Each Phase	2.1 Ω
Inductance Each Phase	1.5 mH
Power Consumption	4.2 W Total
Rotor Inertia	9.0 gcm ²
Insulation Class	Class B (Class F available)
Insulation Resistance	20 M Ω

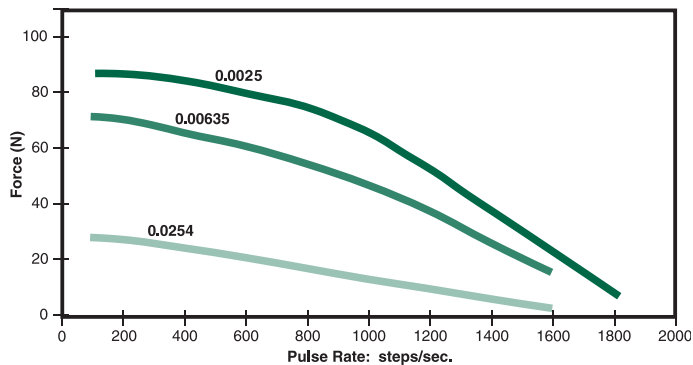
Actuator Performance

Positional Accuracy	0.0006 mm/mm		
Bi-directional Repeatability	0.00125 mm		
Temperature Range	-20°C to 130°C		
Carriage Height	20 mm		
Travel Range	55 to 250 mm		
Standard Leads	0.5 mm	1.27 mm	5.08 mm
Maximum Linear Velocity	5 mm/sec	10 mm/sec	38 mm/sec
Maximum Carriage Load	85 N	70 N	25 N

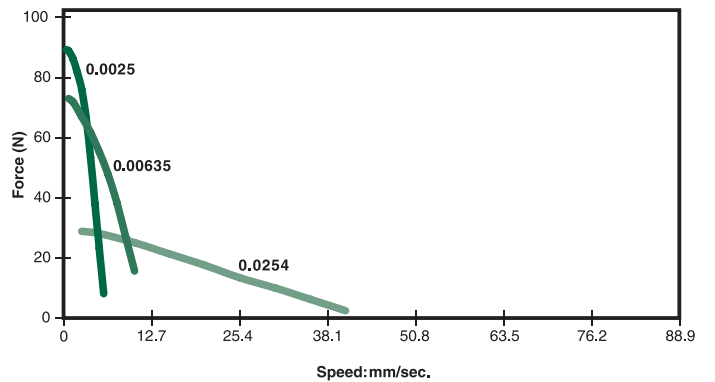
Bipolar Wiring Diagram



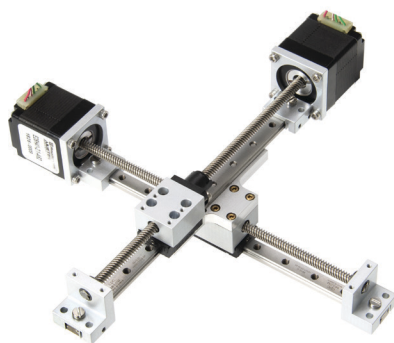
Force vs. Pulse Rate



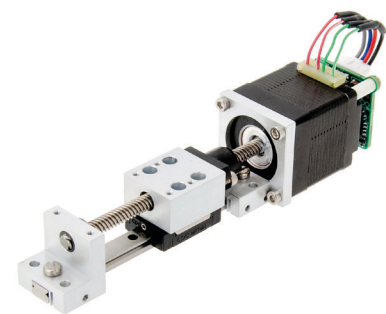
Force vs. Linear Velocity



Solutions Using the RLMA



RLMA XY stage



RLMA with electronics for positional feedback