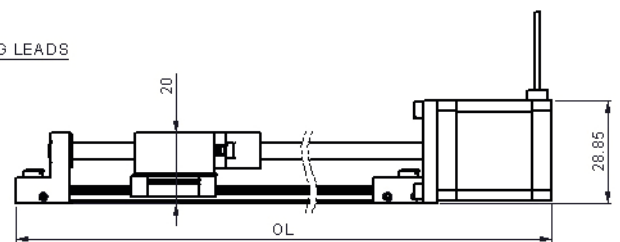
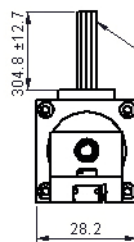
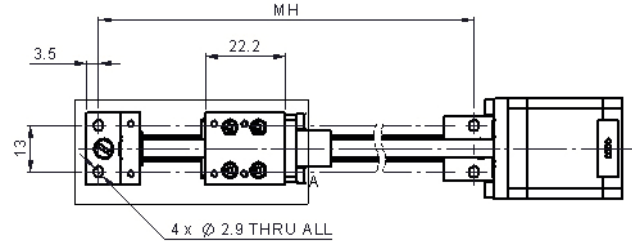
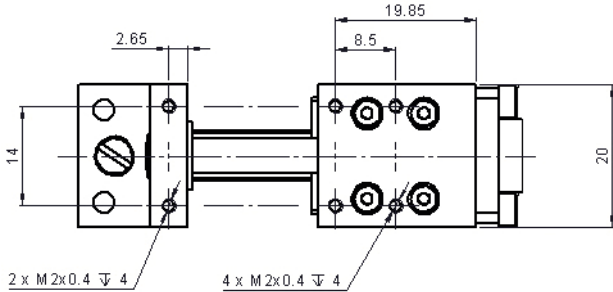
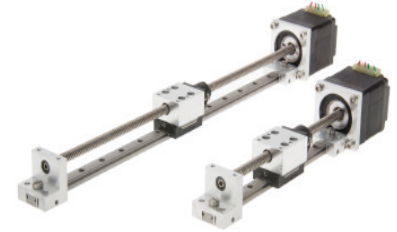


# DATASHEET DS45 - Product Information

## 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
0050	0.5	0.0025
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

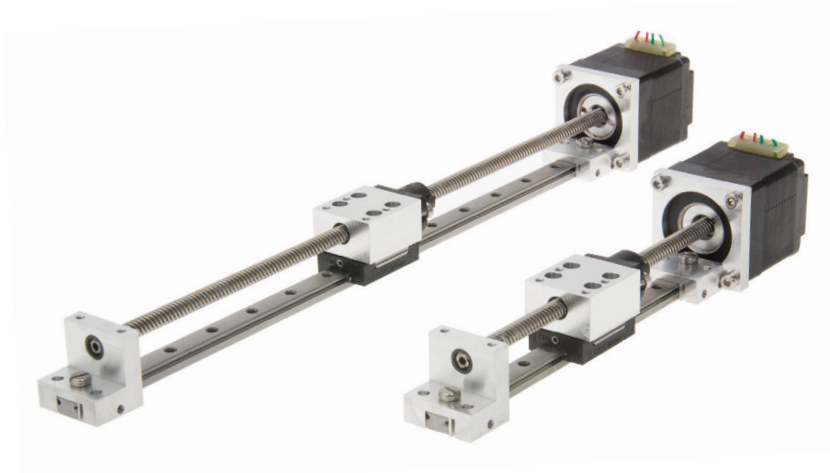
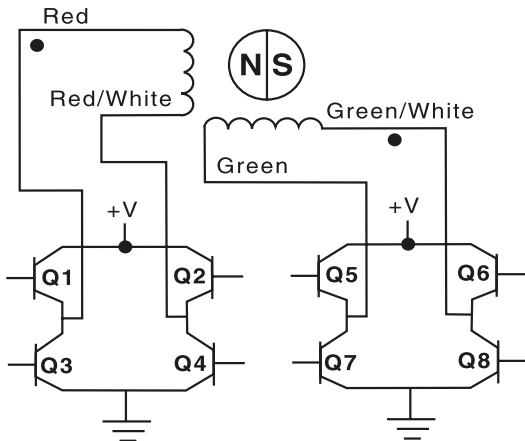
## Motor Specification

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

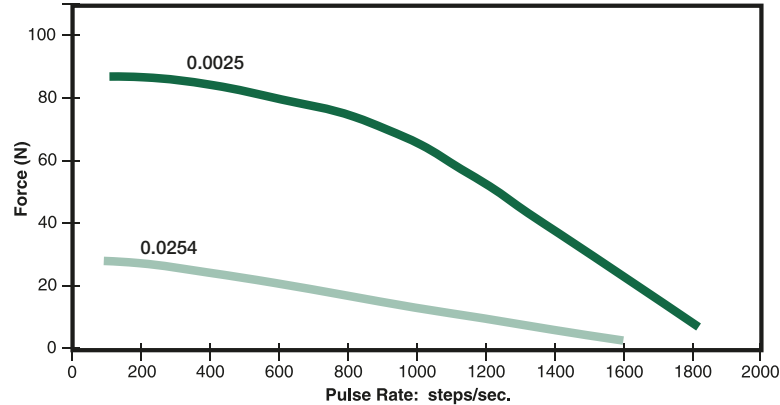
## Actuator Performance

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	5.08 mm
Maximum Linear Velocity	5 mm/sec	38 mm/sec
Maximum Carriage Load	85 N	25 N

## Bipolar Wiring Diagram



## Force vs. Pulse Rate



## Force vs. Linear Velocity

