

# Stepper Motor Linear Actuators: Product Summary

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STEPPER MOTOR TUTORIAL

## Hybrid Linear Actuators

Series	Size (square)	Configuration <sup>#</sup>	Stroke (mm)		Max Force (N)	Travel/step (micron)
			C <sup>#</sup>	NC / EL <sup>#</sup>		
21000	21 mm (0.8-in)	C / NC / EL	9 - 38.1	Up to ≈ 200	2 - 44	1.5 - 40
28000	28 mm (1.1-in)	C / NC / EL	12.7 - 63.5	Up to ≈ 250	15 - 90	3 - 50
35000	35 mm (1.4-in)	C / NC / EL	12.7 - 63.5	Up to ≈ 300	50 - 220	1.5 - 50
43000	43 mm (1.7-in)	C / NC / EL	12.7 - 63.5	Up to ≈ 400	100 - 220	1.5 - 50
57000	57 mm (2.3-in)	C / NC / EL	12.7 - 63.5	Up to ≈ 500	300 - 890	4 - 50
87000	87 mm (3.4-in)	C / NC / EL	12.7 - 63.5	Up to ≈ 500	400 - 2224	12.7 - 127

## Double Stack Hybrid Linear Actuators

Series	Size (square)	Configuration <sup>#</sup>	Stroke (mm)		Max Force (N)	Travel/step (micron)
			C <sup>#</sup>	NC / EL <sup>#</sup>		
28000	28 mm (1.1-in)	C / NC / EL	12.7 - 63.5	Up to ≈ 250	30 - 133 <sup>A</sup>	3 - 50
35000	35 mm (1.4-in)	C / NC / EL	12.7 - 63.5	Up to ≈ 300	50 - 220 <sup>A</sup>	15.8 - 127
43000	43 mm (1.7-in)	C / NC / EL	12.7 - 63.5	Up to ≈ 400	50 - 337	15.8 - 127
57000	57 mm (2.3-in)	C / NC / EL	12.7 - 63.5	Up to ≈ 500	150 - 890 <sup>A</sup>	12.7 - 127

<sup>A</sup> Maximum force limited by bearing capabilities.

## Dual Action Actuators

Size (square)	Torque (Ncm)	Linear Stroke (mm)	Max Force	Travel/step (micron)	Load Limits
35 mm (1.4-in)	12.7	Up to 101.6 <sup>†</sup>	50 - 220 N (25 lbs)	3 - 50	133 N (30 lbs)
43 mm (1.7-in)	13	Up to 101.6 <sup>†</sup>	100 - 220 N (50 lbs)	1.5 - 50	222 N (50 lbs)

<sup>†</sup> Standard strokes: 25.4 mm (1-in.), 50.8 mm (2-in.) and 101.6 mm (4-in.).

## Can-Stack Linear Actuators

Series	Ø Size	Configuration <sup>#</sup>	Stroke (mm)		Max Force (N)	Travel/step (micron)
			C <sup>#</sup>	NC / EL <sup>#</sup>		
G4 19000	20 mm (.79-in)	C / NC / EL	14 - 31	Up to ≈ 150	12 - 50	25 - 100
G4 25000	26 mm (1-in)	C / NC / EL	13 - 31	Up to ≈ 150	20 - 90	12.7 - 100
G4 37000	36 mm (1.4-in)	C / NC / EL	17 - 38	Up to ≈ 150	30 - 260	12.7 - 100
LC15	15 mm (.59-in)	C	12.7	–	7	20
(Z)20000	20 mm (.79-in)	C / NC / EL	12.7	Up to ≈ 150	3 - 35	25 - 100
(Z)26000	26 mm (1-in)	C / NC / EL	12.7 - 31	Up to ≈ 150	10 - 80	6 - 100
36000	36 mm (1.4-in)	C / NC / EL	15.5	Up to ≈ 150	15 - 160	3 - 100
46000	46 mm (1.8-in)	C / NC / EL	23.1	Up to ≈ 200	20 - 260	12.7 - 400

<sup>#</sup> Configurations = Captive / Non-captive / External Linear Lead-screws

## Drives

	Type	Motor Leads	Input Voltage (VDC)	Current/Phase (I)	Microstepping Resolution
40105	Chopper	4	20 - 40	2	2
44103	Chopper	4*	24 - 28	1	8
DCS4020	Chopper	4	24 - 40	2	2
DCM4826X	Chopper	4	12 - 48	2.6	64
DCM8028	Chopper	4 / 6 / 8	20 - 80 E	2.8	256
DCM8055	Chopper	4 / 6 / 8	20 - 80 E	5.5	256

<sup>\*</sup> 5V motors only. E = For Europe – the max. input voltage must be limited to 70 VDC (CE regulations).

## Integrated Electronic Drive

	Type	Input Voltage (VDC)	Programming	Connector	I/O inputs - I/O outputs
IDEA DRIVE	Chopper	12 - 75 VDC	Graphic User Interface	USB/RS-485	8 opto-isolated