Lead Screw Driven Stages-NEMA-8

NEMA 8 hybrid linear actuator provides a continuous thrust of up to 10 lbsF/45N.

Available Stroke Selection

Size A	Stroke B
60	20
80	40
100	60
120	80
140	100
160	120
190	150

| Motor	Voltage (V)	Current (A)	Resistance (Ω)	Inductance (mH)	Lead Wire No.	Motor Length (mm)
8-2105	2.5	0.5	5.1	1.5	4	27.2
8-2205	4.4	0.5	8.8	2.7	4	38.1

Available Lead Screws and Travel per Step

Screw Diameter (inch)	Screw Diameter (mm)	Lead (inch)	Lead (mm)	Lead Code	Travel Per Step (mm)
0.138	3.5052	0.0118	0.3000	AF	0.0015
0.138	3.5052	0.024	0.6096	AA	0.003
0.138	3.5052	0.0394	1.00	AB	0.005
0.138	3.5052	0.048	1.2192	B	0.0061
0.138	3.5052	0.079	2.00	G	0.01
0.138	3.5052	0.158	4.00	M	0.02
0.138	3.5052	0.315	8.00	T	0.04

NEMA 8 ENCODER OPTIONS
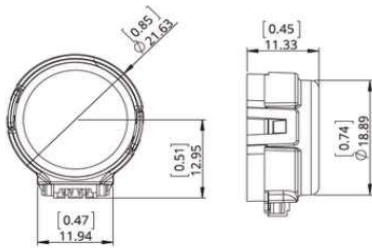
EK1 Encoder – single ended output
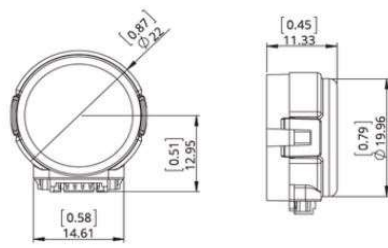
EK1 Encoder – differential output

EK1 Encoder (Used for Size 8, 11, 14, 17 Motor)*No Index

Resolution(CPR)	100	108	120	125	128	200	250	256	300	360	400	500	1000	512	720	800
Single ended output	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Differential output	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
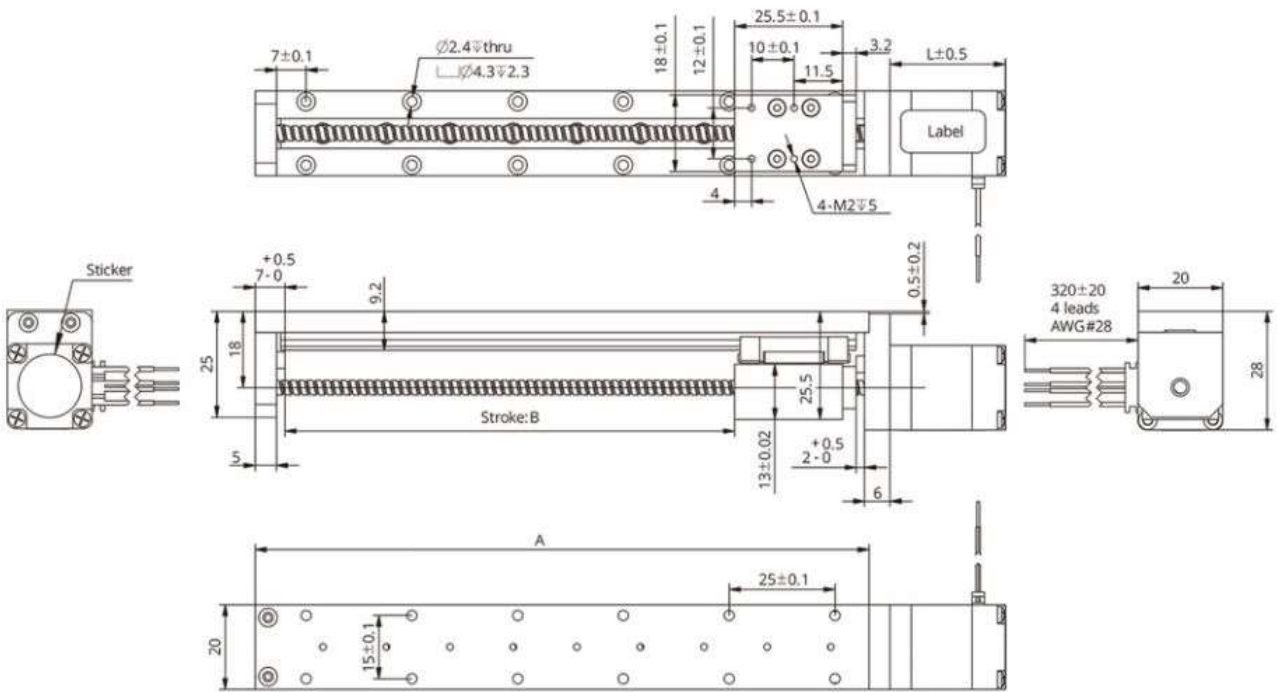
NEMA 8 SPEED THRUST CURVES

All speed / thrust curves below are generated using 8:1 microstepping setting on driver

Size 8 Single Stack Speed Thrust Curves

T (mm/s)	8.0	24.0	40.0	60.0	80.0	100.0
M (mm/s)	4.0	12.0	20.0	30.0	40.0	50.0
G (mm/s)	2.0	6.0	10.0	15.0	20.0	25.0
B (mm/s)	1.2	3.7	6.1	9.1	12.2	15.2
AB (mm/s)	1.0	3.0	5.0	7.5	10.0	12.5
AA (mm/s)	0.6	1.8	3.1	4.6	6.1	7.6
AF (mm/s)	0.3	0.9	1.5	2.3	3.0	3.8
RPM r/min	60	180	300	450	600	750
PPS	200	600	1000	1500	2000	2500

Size 8 Double Stack Speed Thrust Curves

T (mm/s)	8.0	24.0	40.0	60.0	80.0	100.0
M (mm/s)	4.0	12.0	20.0	30.0	40.0	50.0
G (mm/s)	2.0	6.0	10.0	15.0	20.0	25.0
B (mm/s)	1.2	3.7	6.1	9.1	12.2	15.2
AB (mm/s)	1.0	3.0	5.0	7.5	10.0	12.5
AA (mm/s)	0.6	1.8	3.0	4.6	6.1	7.6
AF (mm/s)	0.3	0.9	1.5	2.3	3.0	3.8
RPM r/min	60	180	300	450	600	750
PPS	200	600	1000	1500	2000	2500