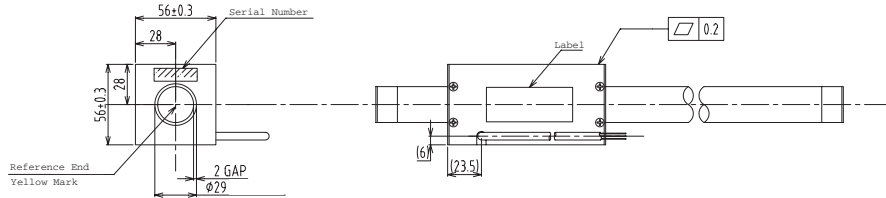
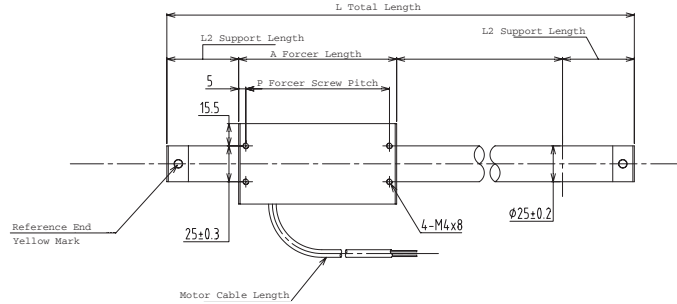


Unless Otherwise Specified:
Dimensions are in mm
Tolerances are as follows:

Dimension (mm)	Tolerance (mm)
6	±0.1
7 - 30	±0.2
31 - 120	±0.3
121 - 315	±0.5
316 - 1000	±0.8
1001 - 2000	±1.2
2000 -	±1.5

* Note 1
Cable length 300mm
The bending radius of the motor cable should be 36.6mm (wire diameter 6.1 * 6) as suggested by the wire manufacturer. This radius should be maintained. Use supplied connector to attach the proper high flex cable as required by your application.

L = See Shaft Length
L1 = Usable Stroke + A
L2 = See Shaft Support Length
A = See Moving Coil Length
P = See Moving Coil Screw Pitch



Electrical Specs	L250SS	L250DS	L250TS
Continuous Force ¹	17N	34N	51N
Continuous Current ¹	1.3Arms	1.3Arms	1.3Arms
Acceleration Force ²	69N	137N	206N
Acceleration Current ²	5.1Arms	5.1Arms	5.1Arms
Force Constant (K _f)	13N/Arms	27N/Arms	40N/Arms
Back EMF (K _e)	4.5V/m/s	9.0V/m/s	13.5V/m/s
Resistance 25°C, ³	6.5Ω	13.0Ω	19.5Ω
Inductance ³	11.4mH	22.7mH	34.1mH
Electric Time Constant	1.75ms	1.75ms	1.75ms
Fundamental Motor Constant (K _m)	5.12N√W	7.48N√W	9.05N√W
Magnetic Pitch (North-North)	60mm	60mm	60mm

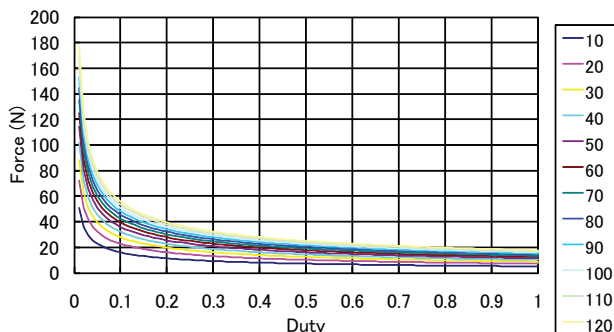
All specifications are for reference only. Specifications may change depending on servo driver selected. Consult Nippon Pulse.
1) Based on a temp rise of coil surface of 110°K over 25°C ambient temperature stalled forcer, and no external cooling or heat sinking. Addition of 25 cm x 25 cm x 2.5 cm aluminum heat sink increases continuous force by 20%.
2) Can be maintained for a maximum of 40 seconds, higher forces and current possible for short periods of time, consult Nippon Pulse
3) All winding parameters listed are measured line-to-line (phase-to-phase)

Thermal Specs	L250SS	L250DS	L250TS
Max Phase Temperature ⁴	135°C	135°C	135°C
Thermal Resistance (Coil) (K _q)	10.0°C	5.2°C	3.5°C

4) The standard temperature difference between the coil and the forcer surface is 40°C

Forcer Specs	L250SS	L250DS	L250TS
Forcer Length (A)	50mm	80mm	110mm
Forcer Width	56mm	56mm	56mm
Forcer Screw Pitch (P)	40mm	70mm	100mm
Forcer Weight	0.43kg	0.8kg	1.1kg
Gap	2mm	2mm	2mm

L250SS Force Duty Curve



Shaft Length (mm)

Stroke	L250SS	L250DS	L250TS
100	250	280	310
150	300	330	360
200	350	380	410
250	400	430	460
300	450	480	510
350	500	530	560
400	550	580	610
450	600	630	660
500	650	680	710
550	700	730	760
600	750	780	810
650	800	830	860
700	850	880	910
750	940	970	1000
800	990	1020	1050
850	1040	1070	1100
900	1090	1120	1150
950	1140	1170	1200
1000	1190	1220	1250
1050	1240	1270	1300
1100	1290	1320	1350
1150	1340	1370	1400
1200	1390	1420	1450
1250	1440	1470	1500
1300	1490	1520	1550
1350	1540	1570	1600
1400	1590	1620	1650
1450	1640	1670	1700
1500	1690	1720	1750
1550	1800	1830	1860
1600	1850	1880	1910
1650	1900	1930	1960
1700	1950	1980	2010
1750	2000	2030	2060
1800	2050	2080	2110
1850	2100	2130	2160
1900	2150	2180	2210
1950	2200	2230	2260
2000	2250	2280	2310

Shaft Mass (kg)

Stroke	L250SS	L250DS	L250TS
100	0.9	1.1	1.2
150	1.1	1.2	1.4
200	1.2	1.4	1.6
250	1.4	1.6	1.7
300	1.6	1.7	1.9
350	1.8	1.9	2.1
400	1.9	2.1	2.2
450	2.1	2.3	2.4
500	2.3	2.4	2.6
550	2.4	2.6	2.8
600	2.6	2.8	2.9
650	2.8	2.9	3.1
700	3	3.1	3.3
750	3.2	3.4	3.5
800	3.4	3.5	3.7
850	3.5	3.7	3.8
900	3.7	3.9	4
950	3.9	4	4.2
1000	4.1	4.2	4.4
1050	4.2	4.4	4.5
1100	4.4	4.6	4.7
1150	4.6	4.7	4.9
1200	4.7	4.9	5.1
1250	4.9	5.1	5.2
1300	5.1	5.2	5.4
1350	5.3	5.4	5.6
1400	5.4	5.6	5.7
1450	5.6	5.8	5.9
1500	5.8	5.9	6.1
1550	6	6.2	6.3
1600	6.2	6.3	6.5
1650	6.3	6.5	6.6
1700	6.5	6.7	6.8
1750	6.7	6.8	7
1800	6.9	7	7.2
1850	7	7.2	7.3
1900	7.2	7.4	7.5
1950	7.4	7.5	7.7
2000	7.6	7.7	7.9

L250xS

Linear Shaft Motor

Part Numbering System

L	Shaft Size (D) 250	Forcer Size (A) <u>X</u>	Parallel Option <u>XX</u>	Usable Stroke <u>XXXXst</u> 100-2000mm	Options <u>XX</u>	Options <u>XX</u>	# of Forcers <u>XX</u> Two or more
		SS: Double (2) windings DS: Triple (3) windings TS: Quadruple (4) windings	Blank: Single Motor PL: Parallel Motors		Blank: Standard WP: Water Resistant HA: Digital Hall Effect CE: CE Type Motor	Blank: Standard FO: Forcer Only SO: Shaft Only	