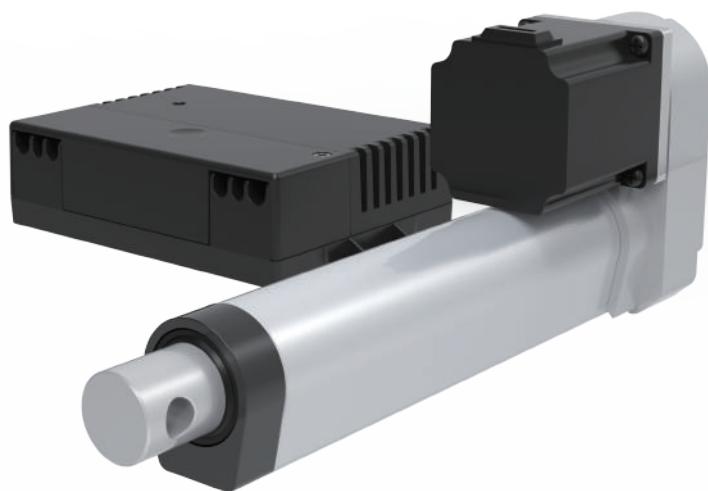


Actuator

LD3L

LD3L is a compact actuator equipped with a brushless DC (BLDC) motor. It features a high duty cycle up to 80% and long lifespan, two major characteristics different from conventional actuators using brushed DC motors. In addition, the dimensions and dynamic performances are basically similar to LD3 actuators. Also LD3L is compatible to most common control boxes that work with LD3 (with brushed DC motors) since it is driven by a default driver board in a separate box.



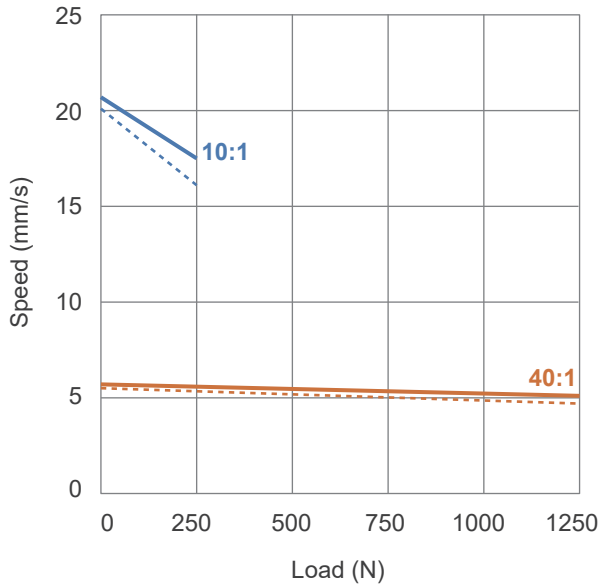
Feature

- Main applications: Industrial
- Input voltage: 24 ~ 33V DC
- Max. load: 1000N (push / pull)
- Max. static load: 2500N (push / pull)
- Typical speed at no load: 20.7 mm/sec
- Typical speed at full load: 5.1 mm/sec (1000N load)
- Stroke: 50 / 100 / 150 / 200 / 250 / 300 mm
- Noise level: ≤ 60 dB
- IP Protection level: IP20
- Color: Aluminum grey
- Power cord length: 900 mm
- Preset limit switches
- Duty cycle: 80%, max. 16 min. continuous operation in 20 min.
- 30,000 cycles life
- Ambient operation temperature: -25°C ~ +65°C

Performance Data

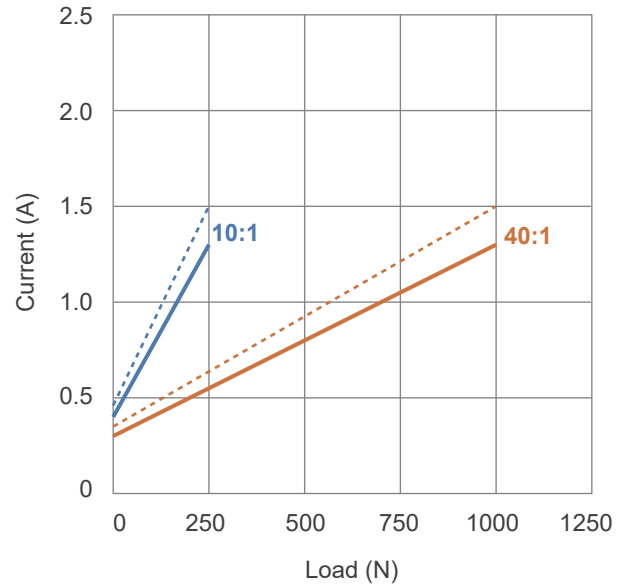
Model	Input Voltage	Gear Ratio	Push / Pull Max. (N)	*Typical Speed (mm/s)		*Typical Current (A)	
				No Load	Full Load	No Load	Full Load
LD3L-2433-10-XXX-XXX00XX	24	10:1	250	20.7	17.5	0.4	1.3
LD3L-2433-40-XXX-XXX00XX	24	40:1	1000	5.7	5.1	0.3	1.3

Speed vs Load



— Typical Speed - - - - Min. Speed

Current vs Load



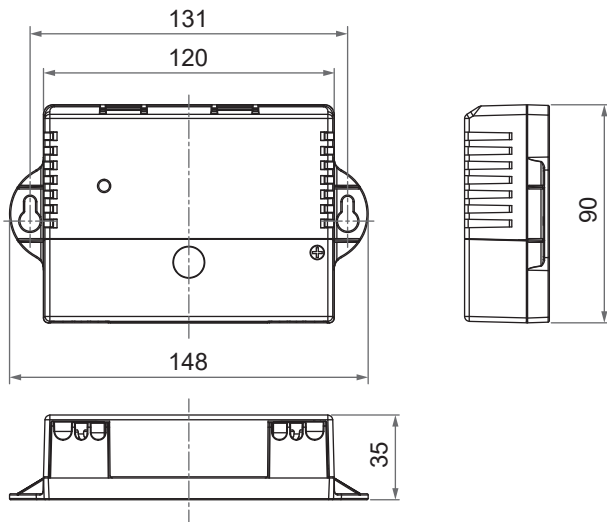
— Typical Current - - - - Max. Current

Remarks:

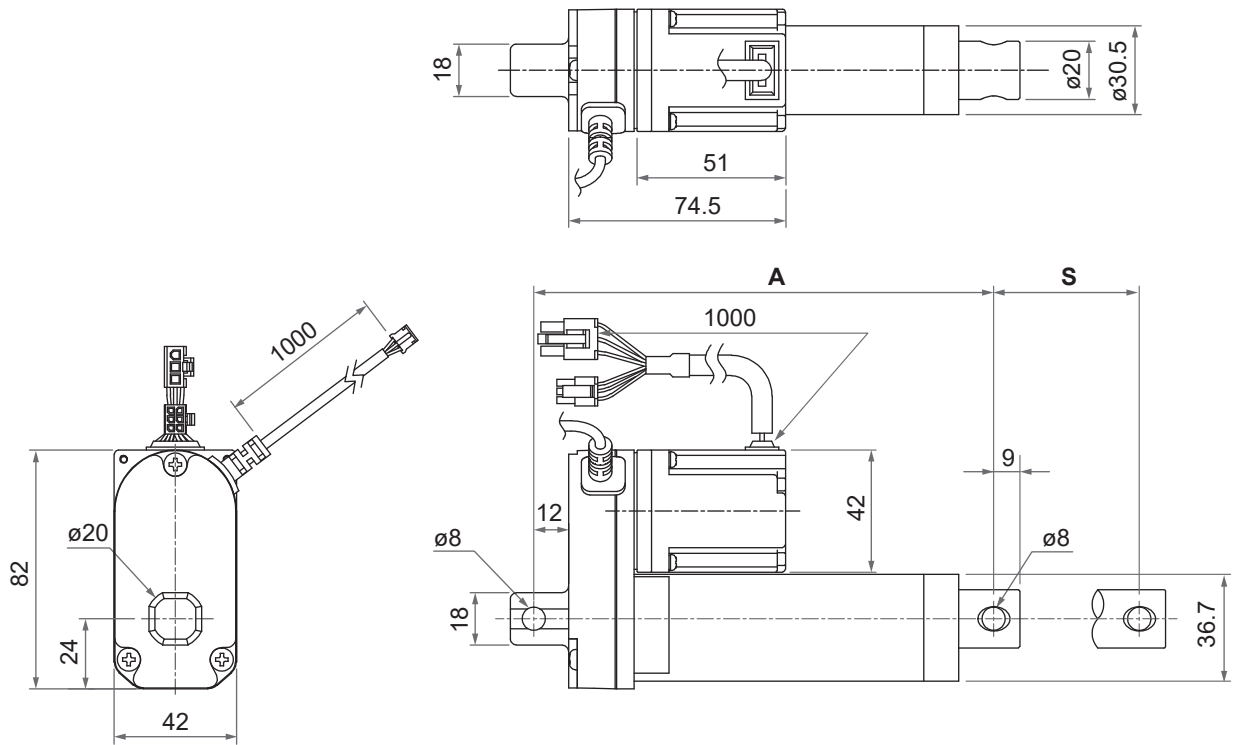
- * The typical speed or typical current means the average value neither upper limit nor lower limit. The performance curves are made with typical values.

Dimensions

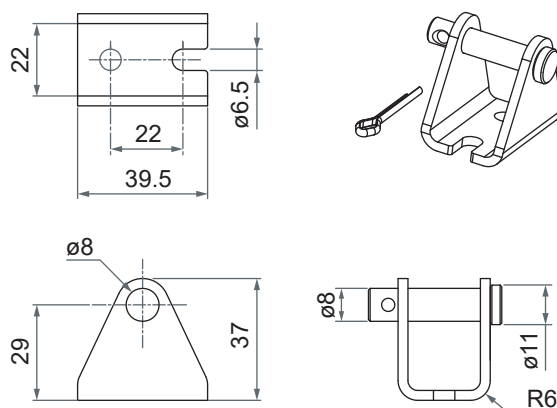
• Driver box



• Actuator



• Mounting bracket (MB22)



Installation Dimension

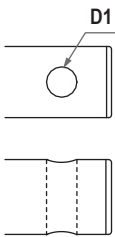
● Retracted length (A)

Front connector code	Stroke (S)					
	50	100	150	200	250	300
1	158	209	260	311	362	413
3	199	250	301	352	403	454
6	168.5	219.5	270.5	321.5	372.5	423.5

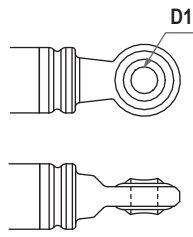
Extended length (B) = S + A
(tolerance: ±3mm)

● Front connector

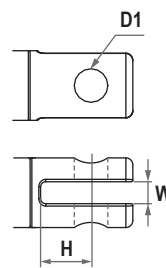
1: Drilled hole



3: Spherical rod eye

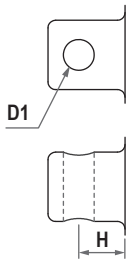


6: Plastic slot

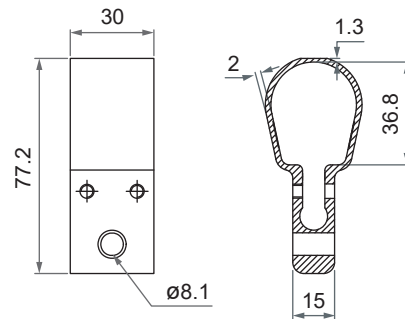


● Rear connector

1: Zinc alloy clevis

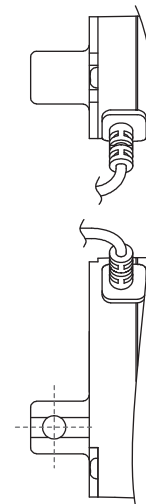


C: Clamp

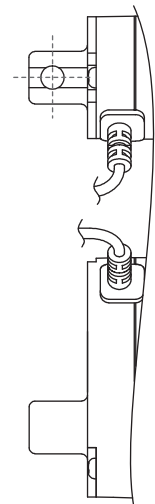


● Pivot orientation of rear connector

0: 0°



9: 90°

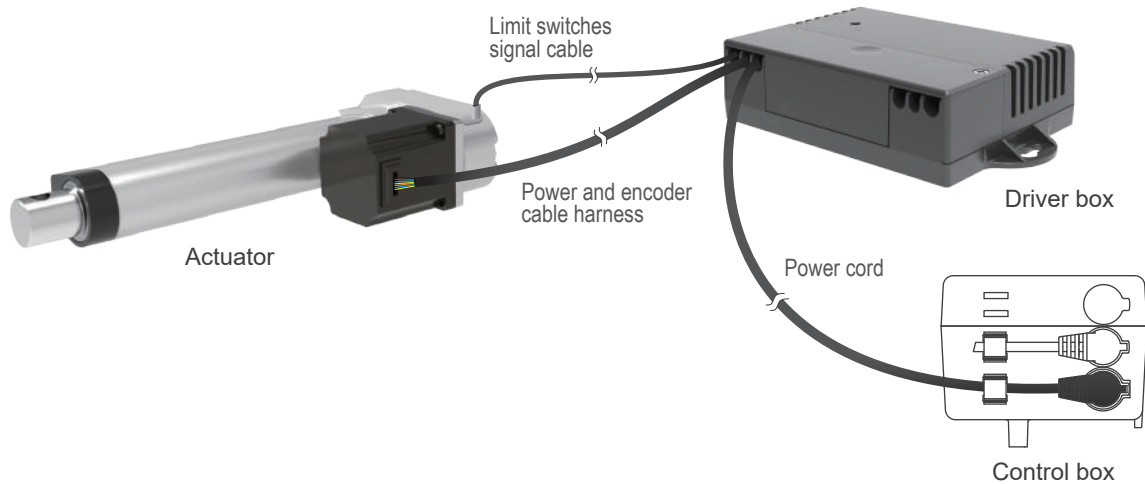


Front connector code	Diameter of pivot without bushing (D1)	Slot width (W)	Slot depth (H)
1	ø6.4, ø8, ø10	N/A	N/A
3	ø8	N/A	N/A
6	ø8, ø10	6	15
Rear connector code			
1	ø6.4, ø8, ø10	N/A	12

Compatibility

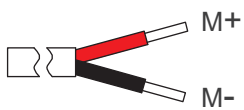
Product	Model	Application condition	LD3L spec
Control box	T-control, CS1, CS2, CBT2, CB3T, CB4M	- Stable output voltage 24~33V DC, without PWM. - Without positioning sensor feedback	- 4-Pin Moteck F-type DIN plug

Connection Diagram:

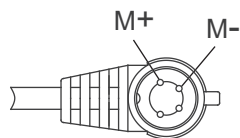


Power cord type

Tinned wires



4-Pin F-type DIN plug



Note:

Connect (M+) to '+' & (M-) to '-' of DC power, the actuator will extend.

Ordering Key

	LD3L - 24 3 3 - 10 - 100 - 1 1 0 0 0 0 1
Input voltage	24: 24V DC
Motor	3: 30W
Spindle type	3: 3 mm
Gear ratio	10: 10:1 40: 40:1 (Refer to Performance Data)
Stroke	050: 50 mm 100: 100 mm 150: 150 mm 200: 200 mm 250: 250 mm 300: 300 mm
Front connector	1: Drilled hole 3: Spherical rod eye 6: Plastic slot (Refer to page 4)
Rear connector	1: Metal C: Clamp (Refer to page 4)
Pivot orientation of rear connector	0: 0° (standard) 9: 90° (Refer to page 4)
Reserved	0: No meaning
Reserved	0: No meaning
Mounting bracket (MB22)	0: None 1: Mounting bracket x 1 2: Mounting bracket x 2 (Refer to page 3)
Cable	1: 900 mm straight