

LINEAR ACTUATORS WITH BUILT-IN CONTROLLER



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Cost-competitive electric actuator, LDL series is offered with an integrated controller. This makes the LDL an economical, space saving solution.



- ✓ Built-in Controller
- ✓ Cost competitive
- ✓ Fully programmable in force, position and velocity
- ✓ Graphical User Interface for simple programming

Part Number	Voltage [DC]	Size: LxWxH [mm]	Stroke [mm]	Peak Force [N]	Continuous Force [N]	Force Constant [N/A]	Maximum Current [Amp]	Moving Mass [kg]	Weight [kg]
LDL15C-010-35-3	48	160x15x70	10	15	6	4.4	3.4	0.075	0.68
LDL25C-010-35-6	48	180x25.4x63.5	10	30	12	8.4	3.6	0.1	1.1
LDL25C-025-35-6	48	180x25.4x63.5	25	30	12	8.4	3.6	0.1	1.1
LDL25C-050-35-6	48	220x25.4x63.5	50	30	12	8.4	3.6	0.11	1.3
LDL25C-075-35-6	48	260x25.4x63.5	50	30	12	40	3.6	0.12	1.5
LDL25C-100-35-6	48	300x25.4x63.5	10	30	12	8.4	3.6	0.13	1.7
LDL40C-025-35-3	48	190x40x120	25	90	36	40	2.5	0.45	4
LDL40C-050-35-3	48	225x40x120	50	90	36	40	2.5	0.47	4
LDL40C-075-35-3	48	250x40x120	75	90	36	40	2.5	0.49	4.5
LDL40C-100-35-3	48	285x40x120	100	90	36	40	2.5	0.51	5.2

NOTE: For any SMAC Moving Coil Actuators, the maximum recommended continuous duty current is 600mA supplied to the actuator over a 1 second period. For anything beyond this in terms of current draw or time please consult the factory. We manufacture actuators to suit our customers' requirements. Please call us if you do not find the right actuator in this list.



Options & Modifications (Consult factory for availability)

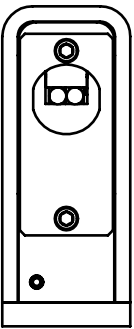
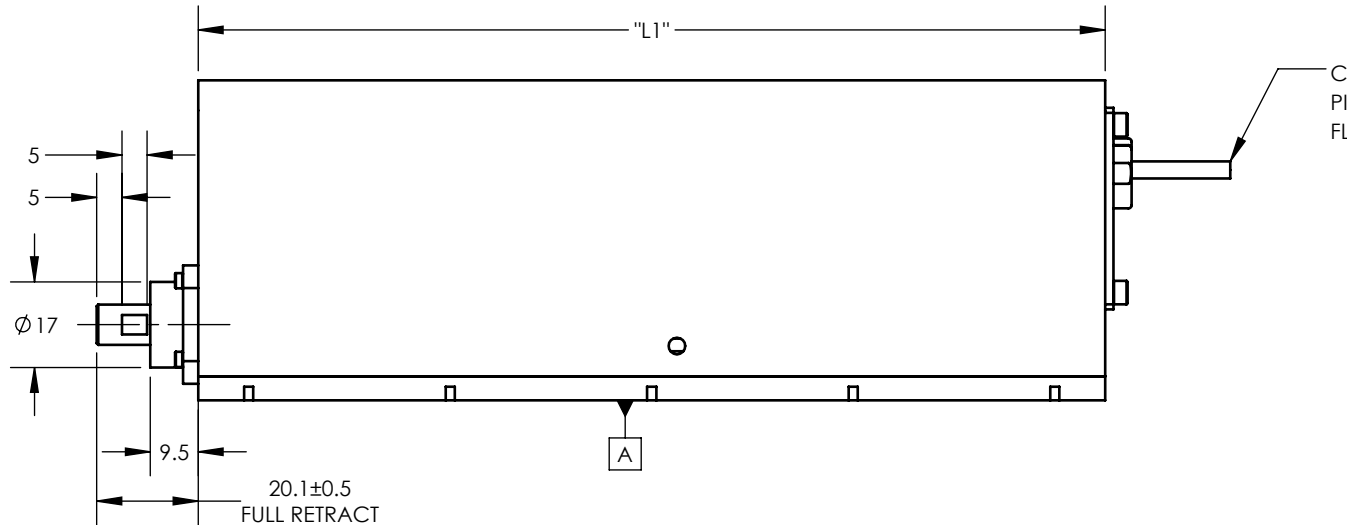
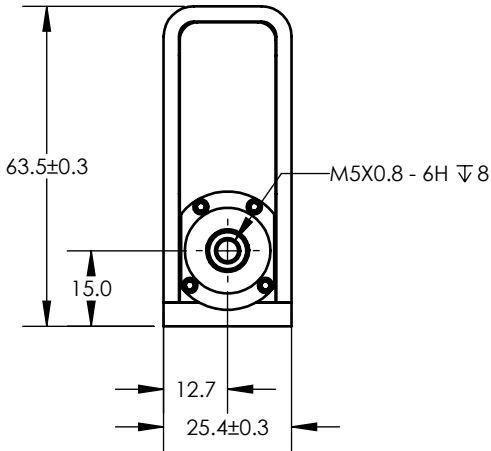
- Built-in Controller ----- Simple installation and effective use of space.
- Linear encoder resolutions ----- 5µm standard and 1µm optional.
- Shaft ends ----- Male, Female, Blank and Custom (check availability of custom option).
- Return spring ----- Prevents the shaft from dropping during vertical operation when power is cut.
- Vacuum ----- Vacuum through the shaft or on the shaft for pick and place applications.
- Increase of force accuracy/lifetime ----- Low-friction linear guide/extra-long preload linear guide.

- NOTES (UNLESS OTHERWISE SPECIFIED)
1. LINAR SPECIFICATIONS:
ENC. RESOLUTION(+A/-A;+B/-B): 5,1 um
ENCODER REPEATABILITY: 10, 2 um
INDEX LOCATION(+Z/-Z): 1.5 - 3.5 mm R.H.S
 2. MAGNET POLE PITCH: 18.3 mm
 3. OPERATING TEMPERATURE: 0°C TO 40°C
 4. PLATING: CERAKOTE, COLOR BLACK
 5. TOLERANCES
X.: ±0.5
X.X: ±0.25



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REV	ECR	DESCRIPTION	DATE	APPROVED
A3	-	UPDATED THE COIL SPECS	4/29/2021	TV
B	-	UPDATED SHAFT DIAMETER	5/11/2021	HE
C	-	UPDATED CABLE PINOUT	5/24/2021	VH
D	-	UPDATED DATA SHEET,ADDED 75MM STROKE	6/21/2021	HE
E	-	UPDATED DATA SHEET & PINOUT	11/18/2021	HE
F	-	UPDATED PINOUT, MOUNTING HOLES WAS M3	2/24/2022	HE
G	-	UPDATED SHAFT RETRACT DIM	3/1/2022	HE
H	7993	ADDED NOSE BUSHING	8/25/2022	TW
J	8025	PIGTAIL CABLE WAS HDB CONNECTOR	10/4/2022	TW



PINOUT
PIG TAIL

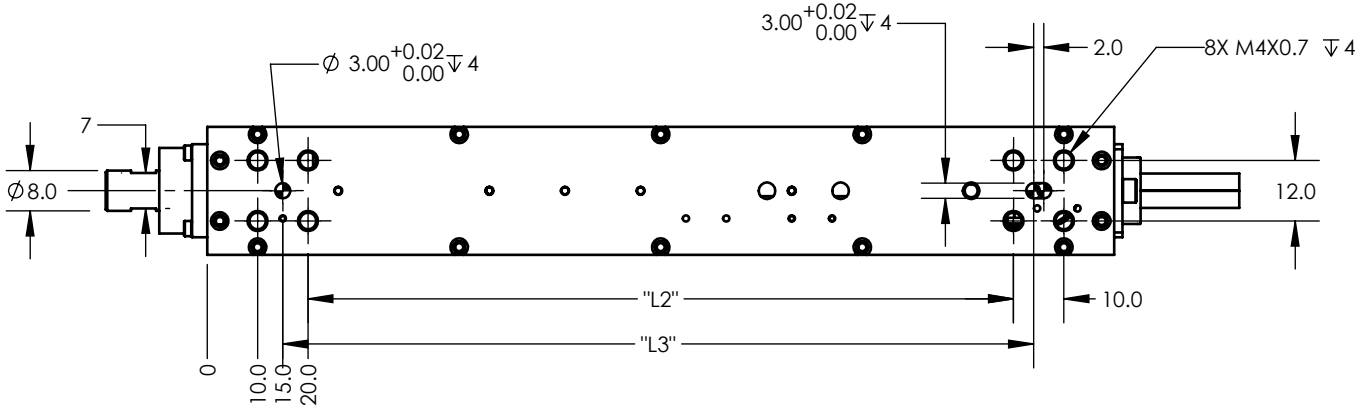
HDB-26P	
PIN No	DETAIL
1	PH. A+
2	PH. B+
3	PH. Z+
4	NC
5	NC
6	NC
7	NC
8	NC
9	NC
10	PH. A-
11	PH. B-
12	PH. Z-
13	NC
14	NC
15	NC
16	NC
19	+5VDC
17	NC
18	NC
20	5V RTN
21	NC
22	MOTOR (U)
23	MOTOR (V)
24	MOTOR (W)
25	NC
26	NC

PINOUT
FLYING LEAD

DB-15P	
PIN No	DETAIL
1	PH. A+
2	PH. Z+
3	PH. B+
4	+5 Vdc
5	NC
6	NC
7	NC
8	NC
9	PH. A -
10	PH. Z -
11	PH. B -
12	5V RTN
13	NC
14	NC
15	NC

PHOENIX. 6P

PIN No	DETAIL
1	GND
2	+V
3	MOTOR (U)
4	MOTOR (V)
5	MOTOR (W)
6	NC



STANDARD							
No	DETAILS	UNIT	LDL25-010-3X-6	LDL25-025-3X-6	LDL25-050-3X-6	LDL25-075-3X-6	LDL25-100-3X-6
1	Linear stroke	mm	10	25	50	75	100
2	Peak force	N	30	30	30	30	30
3	Force constant	N/A	8.4	8.4	8.4	8.4	8.4
4	Peak current	A	3.6	3.6	3.6	3.6	3.6
5	Terminal resistance	Ohm	12.1	12.1	12.1	12.1	12.1
6	Coil inductance	mH	1.1	1.1	1.1	1.1	1.1
7	Moving mass	Kg	0.1	0.1	0.11	0.12	0.13
8	Total mass	Kg	0.9	0.9	1.1	1.3	1.6
9	Vacuum option		YES(**)	YES(**)	YES(**)	YES(**)	YES(**)
10	Spring return opt		YES	YES	YES	YES	YES
11	Dimension L1	mm	155	155	180	220	260
12	Dimension L2	mm	115	115	140	180	220
13	Dimension L3	mm	124	124	149	189	229

VACCUM **: CONSULT FACTORY

REF. NUMBER	LDL25
CONTRACT	STD

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN MM
BREAK EDGES AND REMOVE BURRS
TOLERANCES
X.: ±0.5
X.X: ±0.025
X.XX: ±0.0125
CONCENTRICITY: ±0.025
ROUNDNESS: ±0.025
EDGE BREAKS: 0.2 MAX
ALL DIMENSIONS AND TOLERANCES ARE FINAL

MATERIAL:
SEE BOM
FINISH:
SEE BOM
MACHINE FINISH:
1.6
INTERPRET PER:
ASME Y14.5-2009
THIRD ANGLE
PROJECTION

NAME	DATE
HE	8/17/2021
CHK BY:	8/17/2021
ENG APP	TV
MFG APP	
QA APP	

5807 VAN ALLEN WAY
CARLSBAD CA, 92008
(760) 929-7588
SMAC
MOVING COIL ACTUATORS
TITLE:
LINEAR ACTUATOR
SIZE: B PART NO: LDL25-050-XX-6-F REV: J
SCALE: 2:3 DO NOT SCALE SHEET: 1 / 1