

## **LINEAR ACTUATORS** | 100 - 300 mm 500 - 2500 N

### **DLB-SERIES**

We offer a broad range of high quality linear actuators in standard and customized configurations. Our customer-centric approach makes us the ideal supplier for your project, especially to instrument and apparatus builders. In addition, we offer immediate delivery, thanks to always having a high number of motors in stock.

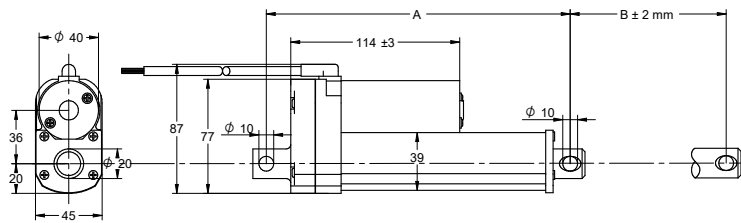
#### **Customizations include:**

- ✓ Customized harness
- ✓ Winding configuration
- ✓ Shaft configuration
- ✓ And more...

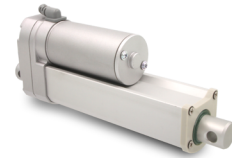
# TABLE OF CONTENTS

MODEL	MAX. STATIC LOAD N	Nominal dynamic load N	STROKE LENGTH mm	FEATURES	PAGE
DLB-X-X-A-X-IP65	1500 - 4500	500 - 2500	100 - 300	-	<a href="#">1</a>
DLB-X-X-A-X-POT-IP65	1500 - 4500	500 - 2500	100 - 300	Potentiometer	<a href="#">2</a>
DLB-X-X-A-X-HS2-IP65	1500 - 4500	500 - 2500	100 - 300	Hall sensor	<a href="#">3</a>

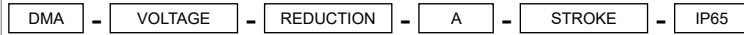
DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION



Example: DLB-12-5-A-50-IP65

OPTIONS ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

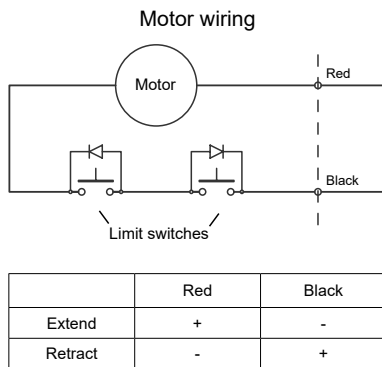
ACTUATOR DATA C

Reduction		10	20	30	40	50	C
Voltage	V	12   24	12   24	12   24	12   24	12   24	
Current at nominal dynamic load	A	4.4   2.4	4.6   2.3	4.3   2.3	4.5   2	4.1   2.2	
Nominal dynamic load	N	500	1000	1500	2000	2500	
Max. static load	N	1500	4500	4500	4500	4500	
Speed at nominal dynamic load	mm/s	19	11	6.8   7.2	5.1   5.7	4.4	

ACTUATOR STROKE DATA C

Stroke length B	mm	100	150	200	250	300	C
Retracted length A	mm	205	255	305	355	405	
Life time number single strokes		40000	27000	20000	16000	13000	
Weight	kg	1.1	1.2	1.2	1.4	1.4	

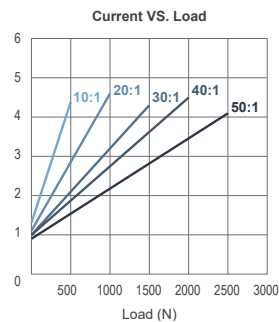
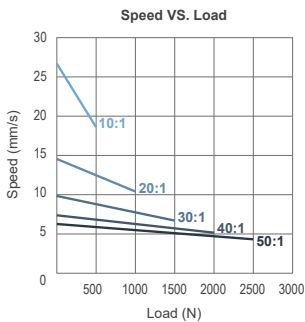
WIRING DIAGRAMS



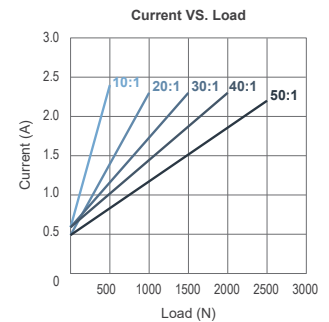
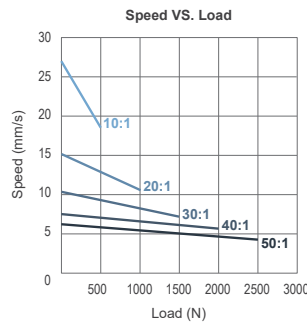
ACTUATOR FEATURES C

Type	Electric linear actuator		
Motor type	Brush PM DC motor		
Cable type	Flying wire (3+2 wires)		●
Cable length	mm	900	●
Voltage	V	12   24	●
Screw type	ACME		
Screw pitch	mm	4.23	
Noise level	dB(A)	≤ 70	●
Life time	4 million mm total stroke		
Limit switches	Yes, integrated non-adjustable		●
Direction movement	By reversing voltage polarity		
Stroke tolerance	mm	± 2.5	
Duty cycle	%	25	
Max. duty operational time	s	60 nominal dynamic load	
IP rating	IP65		
Insulation class	F		
Max. motor winding temp.	°C	155	
EMC	EN55014 IEC61000		
Gearbox	Metal spur gears		
Motor pinion gear	Metal SMF5030		
Gearbox material	Aluminum die cast		
Rod and house material	Aluminum 6061		
Feedback options	Potentiometer or hall sensor		
Operating and storage temperature	°C	-25 to 65	
Manufacturing quality standards	ISO 9001:2008		
General actuator tolerance	%	± 15	

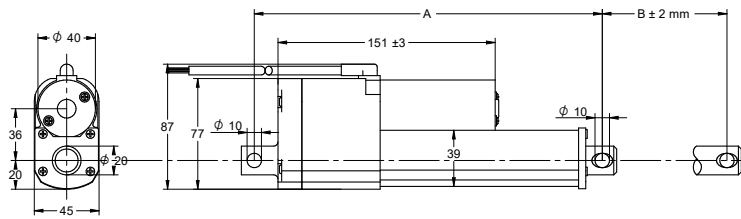
MOTOR GRAPHS 12 V



MOTOR GRAPHS 24 V



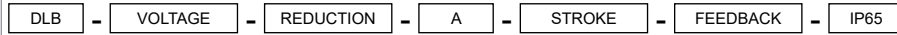
### DRAWING (mm)



### PHOTO



### MODEL NO. DESIGNATION



Example: DLB-12-20-A-305-POT-IP65

### OPTIONS MOUNTING BRACKET



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### ACTUATOR DATA C

Reduction	10	20	30	40	50	C
Voltage	V 12   24	12   24	12   24	12   24	12   24	
Current at nominal dynamic load	A 4.4   2.4	4.6   2.3	4.3   2.3	4.5   2	4.1   2.2	
Nominal dynamic load	N 500	1000	1500	2000	2500	
Max. static load	N 1500	4500	4500	4500	4500	
Speed at nominal dynamic load	mm/s 19	11	6.8   7.2	5.1   5.7	4.4	

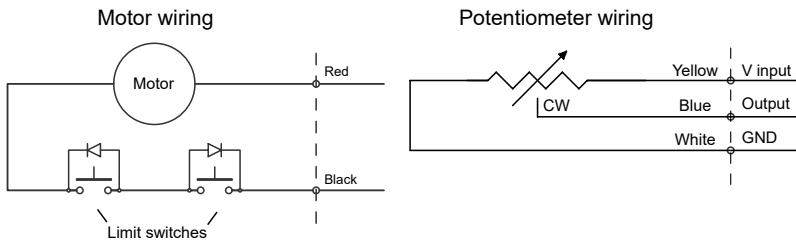
### ACTUATOR STROKE DATA C

Stroke length B	mm 100	150	200	250	300	C
Retracted length A	mm 205	255	305	355	405	
Resistance	kΩ 0.3 - 8.8	0.3 - 9.6	0.3 - 8.9	0.3 - 9.5	0.3 - 9.5	
Feedback	Ω/mm 95	55	46	36	30	
Life time number single strokes	40000	27000	20000	16000	13000	
Weight	kg 1.3	1.4	1.5	1.6	1.7	

### ACTUATOR FEATURES C

Type	Electric linear actuator	
Motor type	Brush PM DC motor	
Cable type	Flying wire (3+2 wires)	●
Cable length	mm 900	●
Voltage	V 12   24	●
Screw type	ACME	
Screw pitch	mm 4.23	
Noise level	dB(A) ≤ 70	●
Life time	4 million mm total stroke	
Limit switches	Yes, integrated non-adjustable	●
Direction movement	By reversing voltage polarity	
Stroke tolerance	mm ± 2.5	
Duty cycle	% 25	
Max. duty operational time	s 60 nominal dynamic load	
IP rating	IP65	
Insulation class	F	
Max. motor winding temp.	°C 155	
EMC	EN55014 IEC61000	
Gearbox	Metal spur gears	
Motor pinion gear	Metal SMF5030	
Gearbox material	Aluminum die cast	
Rod and house material	Aluminum 6061	
Feedback	Potentiometer	
Operating and storage temperature	°C -25 to 65	
Manufacturing quality standards	ISO 9001:2008	
General actuator tolerance	% ± 15	

### WIRING DIAGRAMS

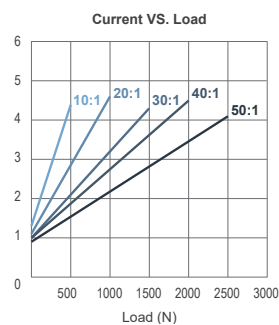
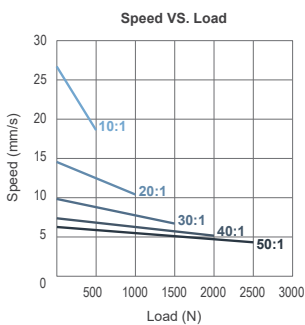


	Red	Black
Extend	+	-
Retract	-	+

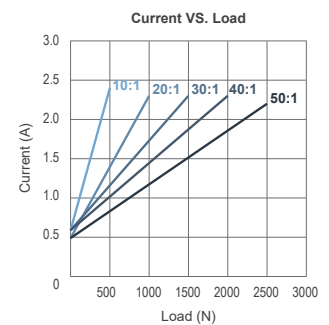
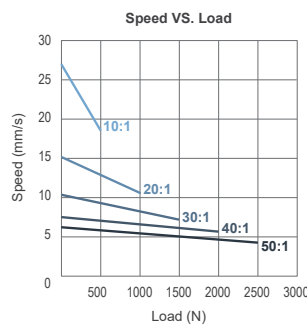
### POTENTIOMETER DATA C

Potentiometer type	Wire wound	
Resistance	kΩ 0.3 - 9.5	
Resolution	% 0.025	
Resistance tolerance	% ± 5	
Linearity	% ± 0.25	

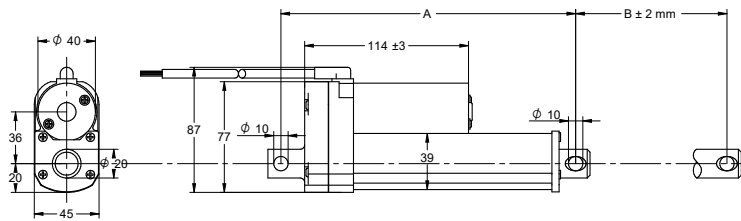
### MOTOR GRAPHS 12 V



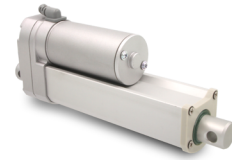
### MOTOR GRAPHS 24 V



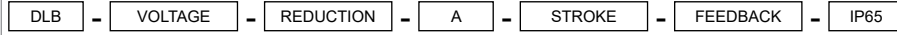
### DRAWING (mm)



### PHOTO



### MODEL NO. DESIGNATION



Example: DLB-12-20-A-305-HS2-IP65

### OPTIONS MOUNTING BRACKET



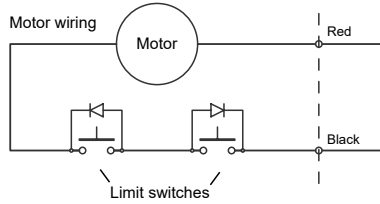
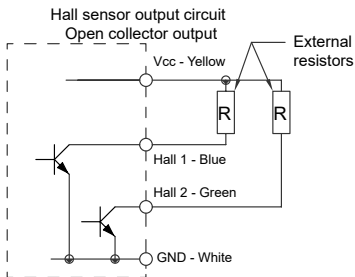
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ACTUATOR DATA		10	20	30	40	50	C
Reduction		10	20	30	40	50	●
Voltage	V	12   24	12   24	12   24	12   24	12   24	
Current at nominal dynamic load	A	4.4   2.4	4.6   2.3	4.3   2.3	4.5   2	4.1   2.2	
Nominal dynamic load	N	500	1000	1500	2000	2500	
Max. static load	N	1500	4500	4500	4500	4500	
Speed at nominal dynamic load	mm/s	19	11	6.8   7.2	5.1   5.7	4.4	
Number of encoder channels		2	2	2	2	2	
Hall sensor channel count per mm		2.6	4.8	7.2	9.7	12	

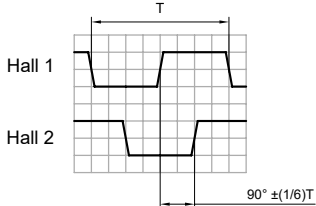
ACTUATOR FEATURES			C
Type		Electric linear actuator	
Motor type		Brush PM DC motor	
Cable type		Flying wire (3+2 wires)	●
Cable length	mm	900	●
Voltage	V	12   24	●
Screw type		ACME	
Screw pitch	mm	4.23	
Noise level	dB(A)	≤ 70	●
Life time		4 million mm total stroke	
Limit switches		Yes, integrated non-adjustable	●
Direction movement		By reversing voltage polarity	
Stroke tolerance	mm	± 2.5	
Duty cycle	%	25	
Max. duty operational time	s	60 nominal dynamic load	
IP rating		IP65	
Insulation class		F	
Max. motor winding temp.	°C	155	
EMC		EN55014 IEC61000	
Gearbox		Metal spur gears	
Motor pinion gear		Metal SMF5030	
Gearbox material		Aluminum die cast	
Rod and house material		Aluminum 6061	
Feedback		Hall sensor	
Operating and storage temperature	°C	-25 to 65	
Manufacturing quality standards		ISO 9001:2008	
General actuator tolerance	%	± 15	

ACTUATOR STROKE DATA		100	150	200	250	300	C
Stroke length B	mm	100	150	200	250	300	●
Retracted length A	mm	205	255	305	355	405	
Life time number single strokes		40000	27000	20000	16000	13000	
Weight	kg	1.1	1.2	1.3	1.4	1.4	

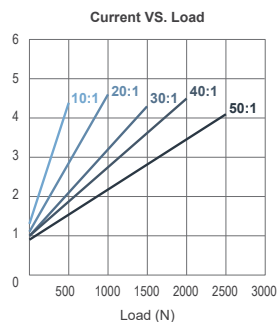
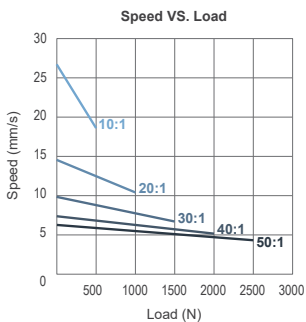
### WIRING DIAGRAMS



HALL SENSOR DATA			C
Supply voltage (Vcc)	V	3.5 - 20	
Supply Current (Icc)	mA	≤ 10	
Output current (Ic)	mA	≤ 25	
Output saturation voltage	mV	≤ 700	
Output leakage current (Icex)	µA	≤ 10	
Output rise and fall time (tr/ft)	µs	≤ 1.5	



### MOTOR GRAPHS 12 V



### MOTOR GRAPHS 24 V

