



# DLB SERIES + ACCESORIES

Stroke: 100 - 300mm  
500 - 2500N

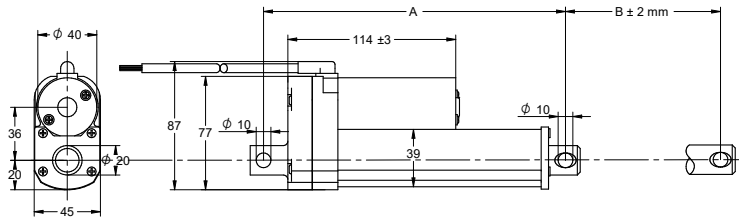
Transmotec sell a broad range of linear actuators in standard and customized configurations. Transmotec is the ideal supplier source especially to instrument and apparatus builders. We keep a high number of actuators in stock for immediate delivery.

## Customizations include:

- ✓ Customized stroke length
- ✓ Customized clevis
- ✓ Customized cabling
- ✓ And more...

# DLB Series / 100 - 300mm / 500 - 2500N

## DRAWING (mm)



## PHOTO



## MODEL NO. DESIGNATION

DLB - VOLTAGE - REDUCTION - A - STROKE - IP65

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

## ACTUATOR DATA

Reduction	10	20	30	40	50
Voltage (VDC)	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	4.5/2.0	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)	18.6/18.7	10.4/10.7	6.8/7.2	5.1/5.7	4.4/4.4

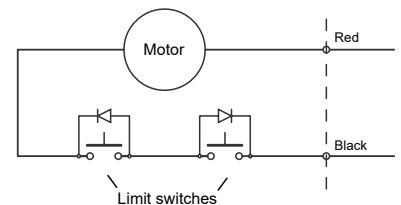
## ACTUATOR STROKE DATA

Stroke length B (mm)	100	150	200	250	300
Retracted length A (mm)	205	255	305	355	405
Life time number single strokes	40.000	26.600	20.000	16.000	13.300
Weight (kg)	1.07	1.15	1.24	1.35	1.44

## ACTUATOR FEATURES AND STANDARD DATA

	STANDARD	CUSTOMIZATION OPTIONS
Type	Electric linear actuator	
Motor type	Brush PM DC motor	
Cable	Flying wire 900 mm	Length, type and connector
Voltage	12 or 24 VDC	36 or 48 VDC
Screw type	ACME pitch 4.23 mm	
Noise level	< 70 dB (A)	Yes
Life time	4 million mm total stroke	
Limit switches	Integrated non adjustable	Stroke length
Direction movement	By reversing voltage polarity	Yes
Stroke tolerance	±2 mm	
Duty cycle	25%	
Max. duty operational time	1 min. nominal dynamic load	
Protection class	IP65	
Insulation class	F	
Max. motor winding temp.	155 °C	
EMC	EN60601	
Gear box	Metal spur gears	
Motor pinion gear	Metal SMF5030	
Gear box material	Aluminium die cast	
Rod and house material	Aluminum 6061	
Feedback options	Potentiometer or hall sensor	
Operating and storage temperature	-25°C~+65°C	
Manufacturing quality standards	ISO 9001:2008	
RoHS compliance	Yes	
CE label	Yes	

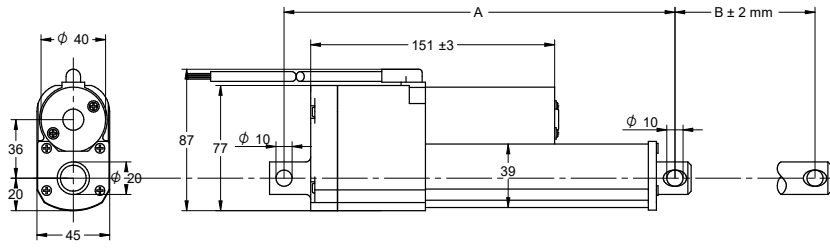
## Motor wiring



	Red	Black
Extend	+	-
Retract	-	+

# DLB Series / 100 - 300mm / 500 - 2500N / potentiometer (POT)

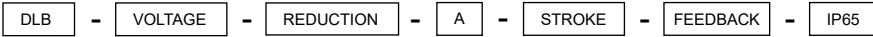
**DRAWING**  
(mm)



**PHOTO**



**MODEL NO. DESIGNATION**



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

**ACTUATOR DATA**

	10	20	30	40	50
Reduction	10	20	30	40	50
Voltage (VDC)	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	4.5/2.0	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)	18.6/18.7	10.4/10.7	6.8/7.2	5.1/5.7	4.4/4.4

**ACTUATOR STROKE DATA**

	100	150	200	250	300
Stroke length B (mm)	100	150	200	250	300
Retracted length A (mm)	242	292	342	392	442
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	40.000	26.600	20.000	16.000	13.300
Weight (kg)	1.33	1.4	1.52	1.57	1.7

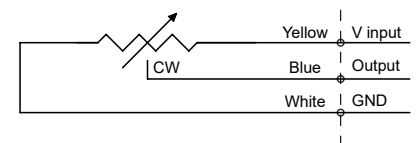
**ACTUATOR FEATURES AND STANDARD DATA**

	STANDARD	CUSTOMIZATION OPTIONS
Type	Electric linear actuator	
Motor type	Brush PM DC motor	
Cable	Flying wire 900 mm	Length, type and connector
Voltage	12 or 24 VDC	36 or 48 VDC
Screw type	ACME pitch 4.23 mm	
Noise level	< 70 dB (A)	Yes
Life time	4 million mm total stroke	
Limit switches	Integrated non adjustable	Stroke length
Direction movement	By reversing voltage polarity	Yes
Stroke tolerance	±2 mm	
Duty cycle	25%	
Max. duty operational time	1 min. nominal dynamic load	
Protection class	IP65	
Insulation class	F	
Max. motor winding temp.	155 °C	
EMC	EN60601	
Gear box	Metal spur gears	
Motor pinion gear	Metal SMF5030	
Gear box material	Aluminium die cast	
Rod and house material	Aluminum 6061	
Feedback	Potentiometer	
Operating and storage temperature	-25°C~+65°C	
Manufacturing quality standards	ISO 9001:2008	
RoHS compliance	Yes	
CE label	Yes	

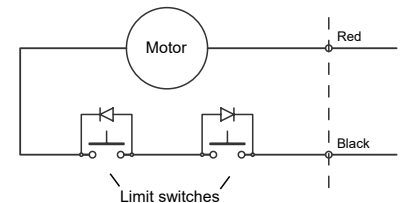
**POTENTIOMETER FEATURES AND DATA**

Type	Wire wound
Resistance	0.3 - 9.5 kΩ
Resolution	0.025%
Resistance tolerance	±5%
Linearity	±0.25%
Cable	3+2 wires flying wire

Potentiometer wiring



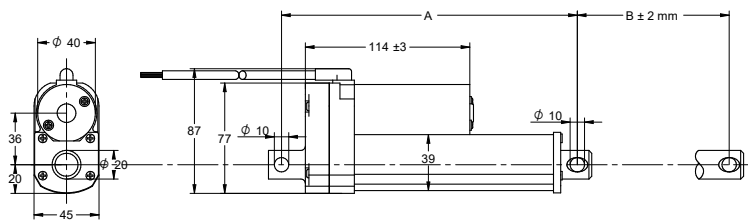
Motor wiring



	Red	Black
Extend	+	-
Retract	-	+

# DLB Series / 100 - 300mm / 500 - 2500N / hall sensor (HS2)

## DRAWING (mm)



## PHOTO



## MODEL NO. DESIGNATION

DLB - VOLTAGE - REDUCTION - A - STROKE - FEEDBACK - IP65 Example: DLB-12-5-A-50-HS2-IP65

## ACTUATOR DATA

Reduction	10	20	30	40	50
Voltage (VDC)	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	4.5/2.0	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)	18.6/18.7	10.4/10.7	6.8/7.2	5.1/5.7	4.4/4.4
Number of encoder channels	2	2	2	2	2
Hall sensor channel counts per mm	2.56	4.75	7.16	9.66	11.82

## ACTUATOR STROKE DATA

Stroke length B (mm)	100	150	200	250	300
Retracted length A (mm)	205	255	305	355	405
Life time number single strokes	40.000	26.600	20.000	16.000	13.300
Weight (kg)	1.06	1.17	1.3	1.35	1.41

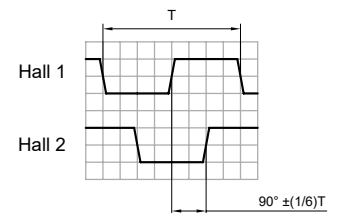
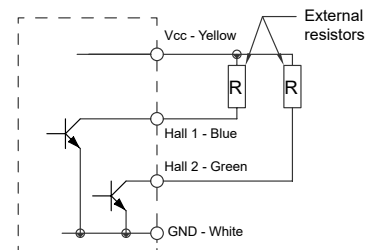
## HALL SENSOR FEATURES AND DATA

CHARACTERISTIC	VALUE
Supply voltage, Vcc	3.5V to 20V
Supply Current, Icc	Vcc ≤ 10 mA
Output current, Ic	≤ 25 mA
Output saturation voltage, Vcc=14V	≤ 700mV
Output leakage current, Icox	Vcc= ≤ 10 µA
Output rise and fall time, tr/ tf	≤ 1,5 µS

## ACTUATOR FEATURES AND STANDARD DATA

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Type	Electric linear actuator	
Motor type	Brush PM DC motor	
Cable	Flying wire 900 mm	Length, type and connector
Voltage	12 or 24 VDC	36 or 48 VDC
Screw type	ACME pitch 4.23 mm	
Noise level	< 70 dB (A)	Yes
Life time	4 million mm total stroke	
Limit switches	Integrated non adjustable	Stroke length
Direction movement	By reversing voltage polarity	Yes
Stroke tolerance	±2 mm	
Duty cycle	25%	
Max. duty operational time	1 min. nominal dynamic load	
Protection class	IP65	
Insulation class	F	
Max. motor winding temp.	155 °C	
EMC	EN60601	
Gear box	Metal spur gears	
Motor pinion gear	Metal SMF5030	
Gear box material	Aluminium die cast	
Rod and house material	Aluminum 6061	
Feedback	Hall sensor	
Operating and storage temperature	-25°C~+65°C	
Manufacturing quality standards	ISO 9001:2008	
RoHS compliance	Yes	
CE label	Yes	

## Hall sensor output circuit Open collector output



## Motor wiring

