

## **LINEAR ACTUATORS** | 10 - 100 mm 21 - 80 N

### **MLA 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.

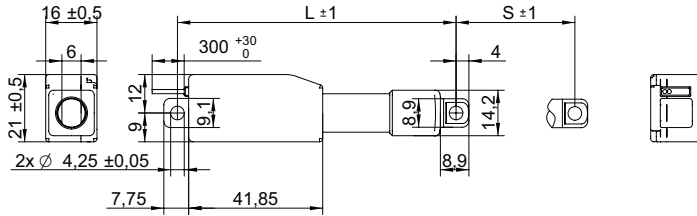
#### **Customizations include:**

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

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MODEL	MAX. STATIC LOAD N	NOMINAL DYNAMIC LOAD N	STROKE LENGTH mm	FEATURES	PAGE
MLA-12-X-T-X-LT-IP69K	21   40	42   80	10 to 100	Limit switch	<a href="#">1</a>
MLA-12-X-T-X-POT-IP69K	21   40	42   80	10 to 100	Potentiometer	<a href="#">2</a>

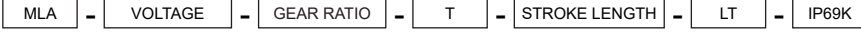
## DRAWING (mm)



## PHOTO



## MODEL NO. DESIGNATION



Example: MLA-12-100-T-100-LT-IP69K

## 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.

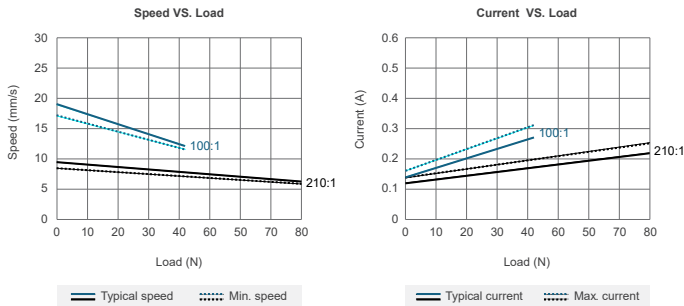
## ACTUATOR DATA

		100:1	210:1	C
Gear ratio		100:1	210:1	
Voltage	V	12	12	
No load current	A	0.14	0.12	
Full load current	A	0.27	0.22	
Duty cycle	%	20	20	
Push/pull max. load	N	42	80	
Max. static load	N	21	40	
No load speed	mm/s	19	12	
Full load speed	mm/s	9.5	6.3	

## ACTUATOR STROKE DATA

		10	30	50	100	C
Stroke length   S	mm	10	30	50	100	
Retracted length   L	mm	67	87	107	157	
Lifetime number single strokes		20000	6600	4000	2000	
Weight	g	30	40	50	60	

## ACTUATOR PERFORMANCE GRAPHS



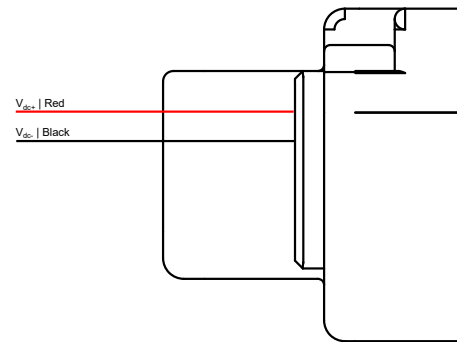
## NOTES

1. IP66 in dynamic loads, IP69K in static loads.

## ACTUATOR FEATURES

			C
Motor type		Permanent magnet DC motor	
Power cable		AWG26	
Cable length	mm	300	●
Screw type		Trapezoidal screw	
Limit switch		Yes	
Feedback		No	
Max. duty operational time	s	30	
IP rating <sup>1</sup>		IP66   IP69K	
EMC		EMC Directive 2014/30/EU	
Operating temperature	°C	-10 to 50	
Manufacturing standard		ISO 9001:2015	
Performance tolerances	%	±15	
Noise level	db(A)	55	
Storage temperature	°C	-25 to 65	
Housing material		Plastic	
Rod and inner tube material		Aluminum	

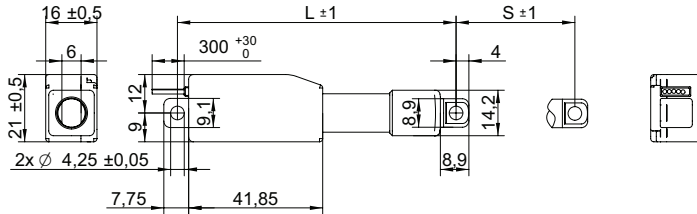
## ACTUATOR WIRING DIAGRAM



## ACTUATOR WIRING CONFIGURATION

Wire	Definition	Description
Red	DC power	Connect red wire to "Vdc+" and black wire to "Vdc-" of DC power to extend the actuator. Switch the polarity of DC input to retract it.
Black		

## DRAWING (mm)



## PHOTO



## MODEL NO. DESIGNATION



Example: MLA-12-100-T-100-POT-IP69K

## ACCESSORIES



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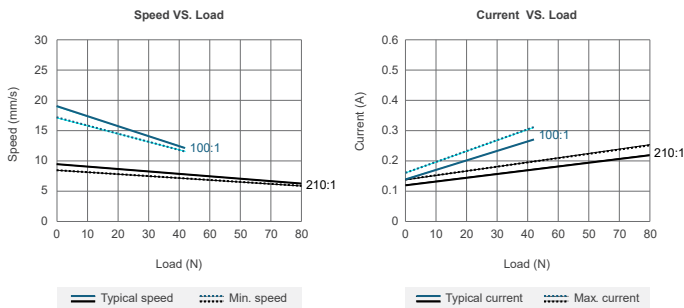
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Gear ratio		100:1	210:1	
Voltage	V	12	12	
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## ACTUATOR STROKE DATA

		30	50	100	C
Stroke length   S	mm	30	50	100	
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Lifetime number single strokes		6600	4000	2000	
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## ACTUATOR PERFORMANCE GRAPHS



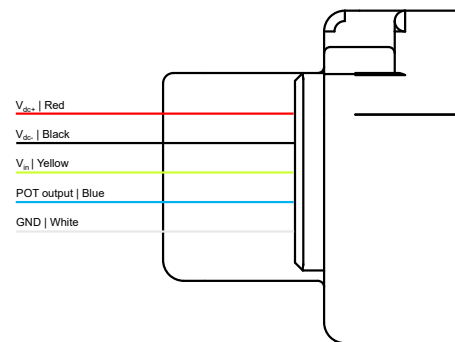
## NOTES

1. IP66 in dynamic loads, IP69K in static loads.

## ACTUATOR FEATURES

Motor type	Permanent magnet DC motor			C
Power cable	AWG26			
Cable length	mm	300		●
Screw type	Trapezoidal screw			
Limit switch	No			
Feedback	Potentiometer			
Max. duty operational time	s	30		
IP rating <sup>1</sup>	IP66   IP69K			
EMC	EMC Directive 2014/30/EU			
Operating temperature	°C	-10 to 50		
Manufacturing standard	ISO 9001:2015			
Performance tolerances	%	±15		
Noise level	db(A)	55		
Storage temperature	°C	-25 to 65		
Housing material	Plastic			
Rod and inner tube material	Aluminum			

## ACTUATOR WIRING DIAGRAM



## ACTUATOR WIRING CONFIGURATION

Wire	Definition	Description
Red	DC power	Connect red wire to "Vdc+" and black wire to "Vdc-" of DC power to extend the actuator. Switch the polarity of DC input to retract it.
Black		
Yellow	Vin	Input any stable high reference voltage <30 V.
Blue	POT output	Potentiometer specification: Total resistance 11 kΩ ± 40%. Output voltage: As the actuator extends, the voltage (resistance) read between the blue and white wires increases linearly. Conversely, decrement when retracting.
White	GND	Any stable low reference voltage (e.g. grounding).