



## **LINEAR ACTUATORS** | 102 - 610 mm 1500 - 7000 N

### **DMA-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.

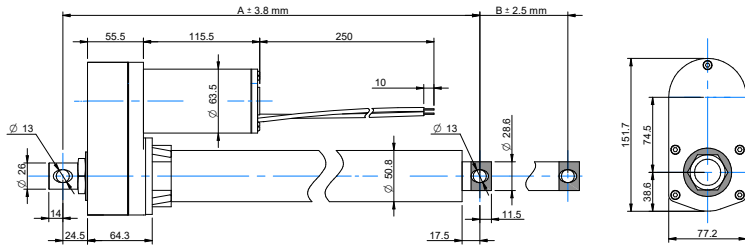
#### **Customizations include:**

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

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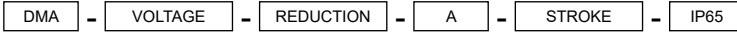
DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION



Example: DMA-12-20-A-305-IP65

OPTIONS MOUNTING BRACKET



● 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

		10	20	40	
Reduction		10	20	40	●
Voltage	V	12   24	12   24	12   24	
Current at nominal dynamic load	A	18   9	13   6.5	11   5.5	
Nominal dynamic load	N	1500	2500	3500	
Max. static load	N	4500	4500	4500	
Speed at nominal dynamic load	mm/s	27	14	7.4	

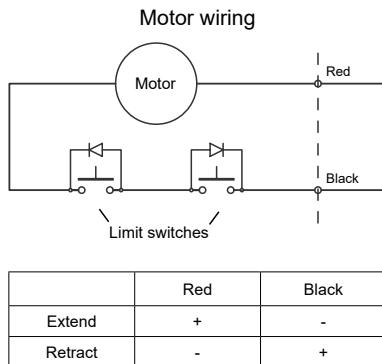
ACTUATOR FEATURES C

Type	Electric linear actuator			
Motor type	Brush PM DC motor			
Cable type	Flying wire (3+2 wires)			●
Cable length	mm	250		●
Voltage	V	12   24		●
Screw type	ACME			
Noise level	dB(A)	≤ 70		
Life time	4 million mm total stroke			
Limit switches	No			
Overload protection	By clutch			
Direction movement	By reversing voltage polarity			
Stroke tolerance	mm	± 2.5		
Duty cycle	%	25		
Max. duty operational time	s	120 nominal dynamic load		
IP rating	IP65			
Insulation class	F			
Max. motor winding temp.	°C	155		
EMC	EN55014 IEC61000			
Gear box	Metal spur gears			
Gear box material	Aluminum alloy			
Rod and house material	Steel 12L14 STKM11A			
Feedback options	Potentiometer			
Operating and storage temperature	°C	-26 to 65		●
Manufacturing quality standards	ISO 9001:2008			
General actuator tolerance	%	± 15		

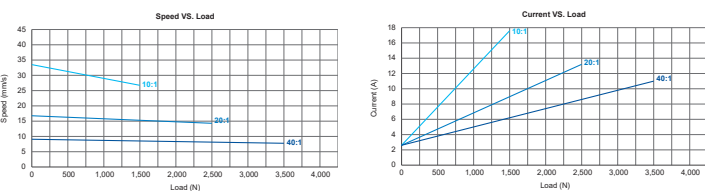
ACTUATOR STROKE DATA C

	mm	102	153	203	305	457	610	
Stroke length B	mm	102	153	203	305	457	610	●
Retracted length A	mm	262	313	364	465	668	821	
Life time number single strokes		39000	26000	20000	13000	8700	6500	
Weight	kg	4.3	4.6	4.9	5.4	6.2	7.8	

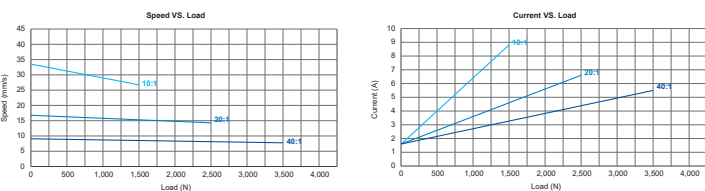
WIRING DIAGRAMS



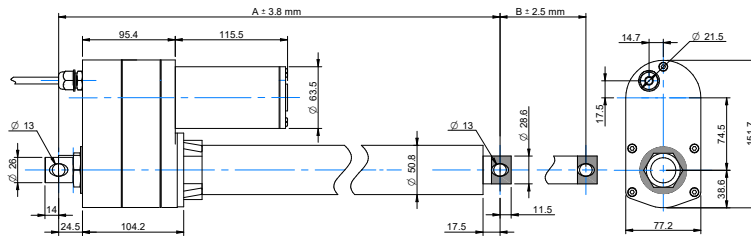
MOTOR GRAPHS 12 V



MOTOR GRAPHS 24 V



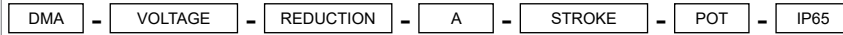
## DRAWING (mm)



## PHOTO



## MODEL NO. DESIGNATION



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

## OPTIONS MOUNTING BRACKET



● 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

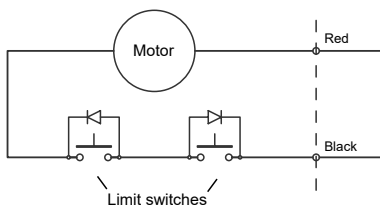
		10	20	40	C
Reduction		10	20	40	●
Voltage	V	12   24	12   24	12   24	
Current at nominal dynamic load	A	18   9	13   6.5	11   5.5	
Nominal dynamic load	N	1500	2500	3500	
Max. static load	N	4500	4500	4500	
Speed at nominal dynamic load	mm/s	27	14	7.4	
Speed at no load	mm/s	34	17	8.4	

## ACTUATOR STROKE DATA

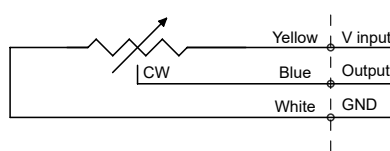
		102	153	203	305	457	610	C
Stroke length B	mm	102	153	203	305	457	610	●
Retracted length A	mm	302	353	404	505	708	861	
Feedback	Ω/mm	100	67	50	33	22	17	
Life time number single strokes		39000	26000	20000	13000	8700	6500	
Weight	kg	4.3	4.6	4.9	5.4	6.2	7.8	

## WIRING DIAGRAMS

### Motor wiring



### Potentiometer wiring

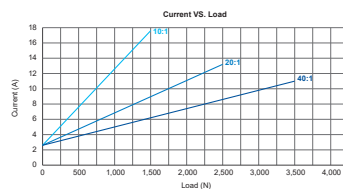
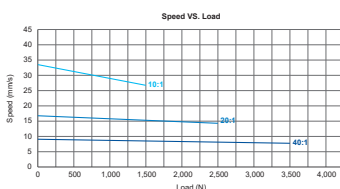


	Red	Black
Extend	+	-
Retract	-	+

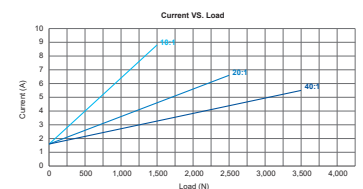
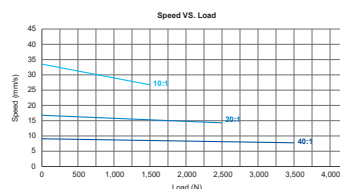
## ACTUATOR FEATURES

			C
Type		Electric linear actuator	
Motor type		Brush PM DC motor	
Cable type		Flying wire (3+2 wires)	●
Cable length	mm	250	●
Voltage	V	12   24	●
Screw type		ACME	
Noise level	dB(A)	≤ 70	
Life time		4 million mm total stroke	
Limit switches		No	
Overload protection		By clutch	
Direction movement		By reversing voltage polarity	
Stroke tolerance	mm	± 2.5	
Duty cycle	%	25	
Max. duty operational time	s	120 nominal dynamic load	
IP rating		IP65	
Insulation class		F	
Max. motor winding temp.	°C	155	
EMC		EN55014 IEC61000	
Gear box		Metal spur gears	
Gear box material		Aluminum alloy	
Rod and house material		Steel 12L14 STKM11A	
Feedback		Potentiometer	
Operating and storage temperature	°C	-26 to 65	●
Manufacturing quality standards		ISO 9001:2008	
General actuator tolerance	%	± 15	

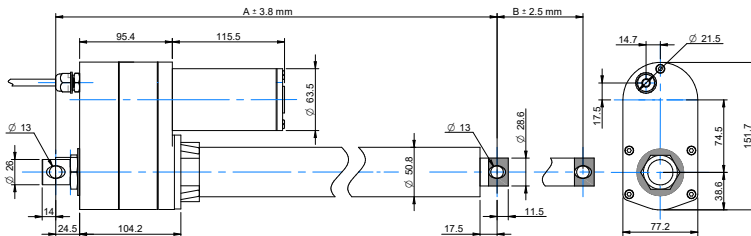
## MOTOR GRAPHS 12 V



## MOTOR GRAPHS 24 V



**DRAWING (mm)**



**PHOTO**



**MODEL NO. DESIGNATION**



Example: DMA-12-20-A-305-LT-IP65

**OPTIONS MOUNTING BRACKET**



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**ACTUATOR DATA C**

Reduction	10	20	40	C
Voltage	V 12   24	12   24	12   24	
Current at nominal dynamic load	A 18   9	13   6.5	11   5.5	
Nominal dynamic load	N 1500	2500	3500	
Max. static load	N 4500	4500	4500	
Speed at nominal dynamic load	mm/s 27	14	7.4	
Speed at no load	mm/s 34	17	8.4	

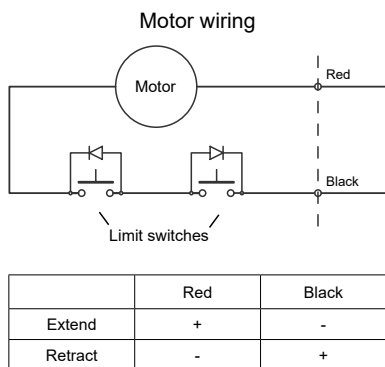
**ACTUATOR FEATURES C**

Type	Electric linear actuator	
Motor type	Brush PM DC motor	
Cable type	Flying wire (3+2 wires)	●
Cable length	mm 250	●
Voltage	V 12   24	●
Screw type	ACME	
Noise level	dB(A) ≤ 70	
Life time	4 million mm total stroke	
Limit switches	Yes	
Overload protection	By clutch	
Direction movement	By reversing voltage polarity	
Stroke tolerance	mm ± 2.5	
Duty cycle	% 25	
Max. duty operational time	s 120 nominal dynamic load	
IP rating	IP65	
Insulation class	F	
Max. motor winding temp.	°C 155	
EMC	EN55014 IEC61000	
Gear box	Metal spur gears	
Gear box material	Aluminum alloy	
Rod and house material	Steel 12L14 STKM11A	
Feedback options	Potentiometer	
Operating and storage temperature	°C -26 to 65	●
Manufacturing quality standards	ISO 9001:2008	
General actuator tolerance	% ± 15	

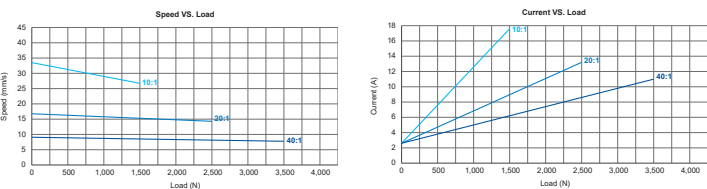
**ACTUATOR STROKE DATA C**

Stroke length B	mm	102	153	203	305	457	610	C
Retracted length A	mm	359	410	460	613	765	918	
Life time number single strokes		39000	26000	20000	13000	8700	6500	
Weight	kg	4.3	4.6	4.9	5.4	6.2	7.8	

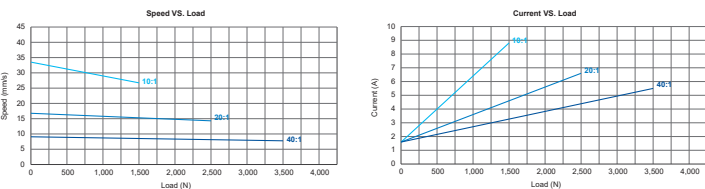
**WIRING DIAGRAMS**



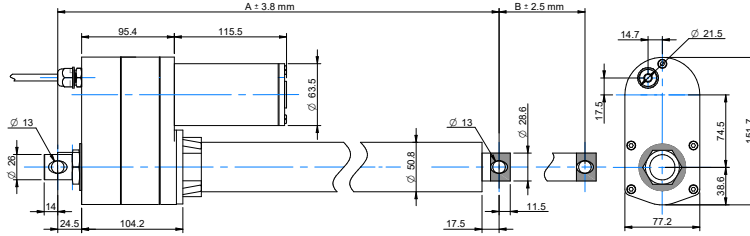
**MOTOR GRAPHS 12 V**



**MOTOR GRAPHS 24 V**



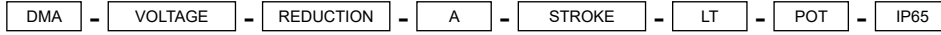
**DRAWING (mm)**



**PHOTO**



**MODEL NO. DESIGNATION**



Example: DMA-12-20-A-305-LT-POT-IP65

**OPTIONS MOUNTING BRACKET**



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**ACTUATOR DATA C**

Reduction	10	20	40	<span style="color: green;">●</span>
Voltage	V 12   24	12   24	12   24	
Current at nominal dynamic load	A 18   9	13   6.5	11   5.5	
Nominal dynamic load	N 1500	2500	3500	
Max. static load	N 4500	4500	4500	
Speed at nominal dynamic load	mm/s 27	14	7.4	
Speed at no load	mm/s 34	17	8.4	

**ACTUATOR STROKE DATA C**

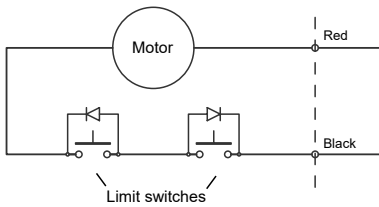
Stroke length B	mm 102	153	203	305	457	610	<span style="color: green;">●</span>
Retracted length A	mm 359	410	460	613	765	918	
Feedback	Ω/mm 100	67	50	33	22	17	
Life time number single strokes	39000	26000	20000	13000	8700	6500	
Weight	kg 4.3	4.6	4.9	5.4	6.2	7.8	

**ACTUATOR FEATURES C**

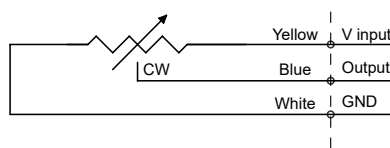
Type	Electric linear actuator		
Motor type	Brush PM DC motor		
Cable type	Flying wire (3+2 wires)		<span style="color: green;">●</span>
Cable length	mm	250	<span style="color: green;">●</span>
Voltage	V	12   24	<span style="color: green;">●</span>
Screw type	ACME		
Noise level	dB(A)	≤ 70	
Life time	4 million mm total stroke		
Limit switches	Yes		
Overload protection	By clutch		
Direction movement	By reversing voltage polarity		
Stroke tolerance	mm	± 2.5	
Duty cycle	%	25	
Max. duty operational time	s	120 nominal dynamic load	
IP rating	IP65		
Insulation class	F		
Max. motor winding temp.	°C	155	
EMC	EN55014 IEC61000		
Gear box	Metal spur gears		
Gear box material	Aluminum alloy		
Rod and house material	Steel 12L14 STKM11A		
Feedback	Potentiometer		
Operating and storage temperature	°C	-26 to 65	<span style="color: green;">●</span>
Manufacturing quality standards	ISO 9001:2008		
General actuator tolerance	%	± 15	

**WIRING DIAGRAMS**

Motor wiring

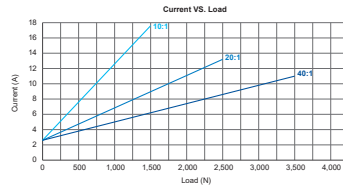
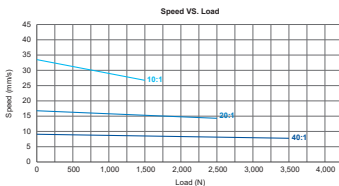


Potentiometer wiring

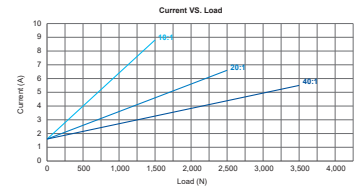
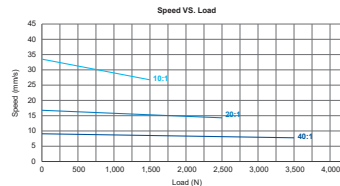


	Red	Black
Extend	+	-
Retract	-	+

**MOTOR GRAPHS 12 V**

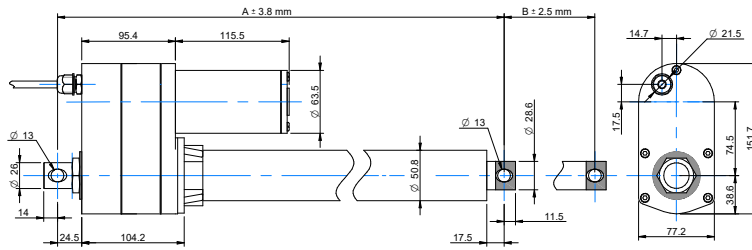


**MOTOR GRAPHS 24 V**





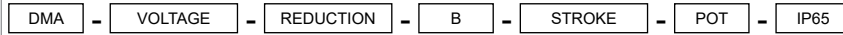
DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION



Example: DMA-12-20-B-305-POT-IP65

OPTIONS MOUNTING BRACKET



● 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.

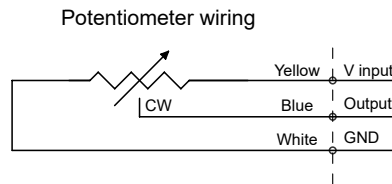
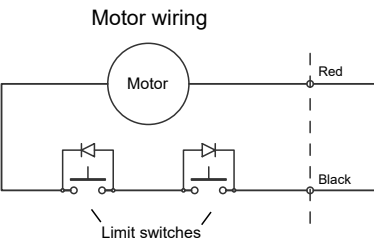
ACTUATOR DATA C

Reduction		5	10	20	30	40	C
Voltage	V	12   24	12   24	12   24	12   24	12   24	
Current at nominal dynamic load	A	28   14	18   9	13   7	13   7	11   5.5	
Nominal dynamic load	N	2600	3500	4500	6000	7000	
Max. static load	N	14000	14000	14000	14000	14000	
Speed at nominal dynamic load	mm/s	47	27	14	9.8	7.4	
Speed at no load	mm/s	67	34	17	11	8.4	

ACTUATOR STROKE DATA C

Stroke length B	mm	102	153	203	305	457	610	C
Retracted length A	mm	342	393	444	546	775	928	
Feedback	Ω/mm	100	67	50	33	22	17	
Life time number single strokes		39000	26000	20000	13000	8700	6500	
Weight	kg	4.3	4.6	4.9	5.4	6.2	7.8	

WIRING DIAGRAMS



	Red	Black
Extend	+	-
Retract	-	+

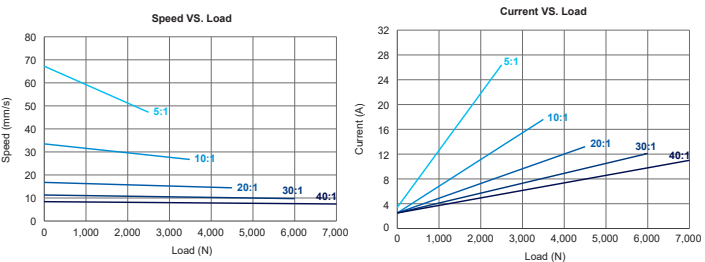
ACTUATOR FEATURES C

Type	Electric linear actuator	
Motor type	Brush PM DC motor	
Cable type	Flying wire (3+2 wires)	●
Cable length	mm	250 ●
Voltage	V	12   24 ●
Screw type	Ball screw	
Noise level	dB(A)	≤ 70
Life time		4 million mm total stroke
Limit switches		No
Overload protection		By clutch
Direction movement		By reversing voltage polarity
Stroke tolerance	mm	± 2.5
Duty cycle	%	25
Max. duty operational time	s	120 nominal dynamic load
IP rating		IP65
Insulation class		F
Max. motor winding temp.	°C	155
EMC		EN55014 IEC61000
Gear box		Metal spur gears
Gear box material		Aluminum alloy
Rod and house material		Steel 12L14 STKM11A
Feedback		Potentiometer
Operating and storage temperature	°C	-26 to 65 ●
Manufacturing quality standards		ISO 9001:2008
General actuator tolerance	%	± 15

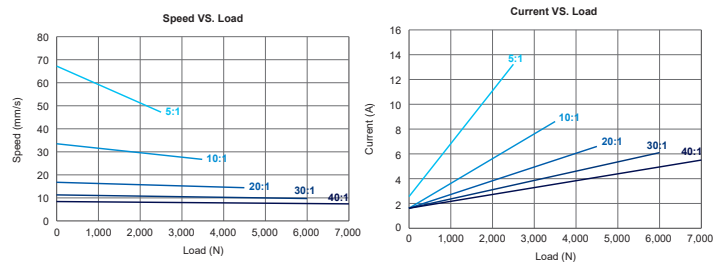
POTENTIOMETER DATA C

Potentiometer type		Wire wound
Resistance	kΩ	0.3 - 9.7
Resolution	%	0.025
Resistance tolerance	%	± 5
Linearity	%	± 0.25

MOTOR GRAPHS 12 V

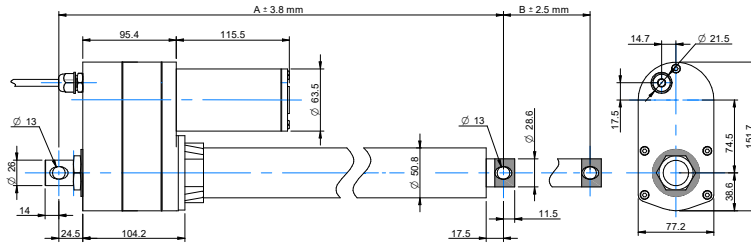


MOTOR GRAPHS 24 V





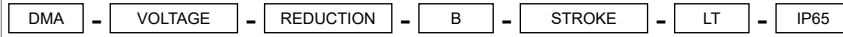
DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION



Example: DMA-12-20-B-305-LT-IP65

OPTIONS MOUNTING BRACKET



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		5	10	20	30	40	●
Voltage	V	12   24	12   24	12   24	12   24	12   24	
Current at nominal dynamic load	A	28   14	18   9	13   7	13   7	11   5.5	
Nominal dynamic load	N	2600	3500	4500	6000	7000	
Max. static load	N	14000	14000	14000	14000	14000	
Speed at nominal dynamic load	mm/s	47	27	14	9.8	7.4	
Speed at no load	mm/s	67	34	17	11	8.4	

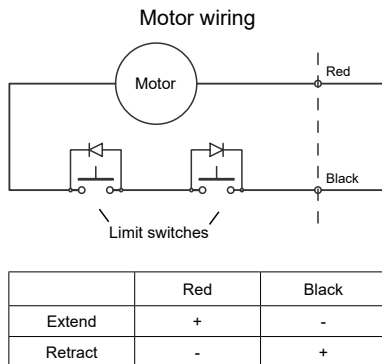
ACTUATOR FEATURES C

Type	Electric linear actuator		
Motor type	Brush PM DC motor		
Cable type	Flying wire (3+2 wires)		●
Cable length	mm	250	●
Voltage	V	12   24	●
Screw type	Ball screw		
Noise level	dB(A)	≤ 70	
Life time	4 million mm total stroke		
Limit switches	Yes		
Overload protection	By clutch		
Direction movement	By reversing voltage polarity		
Stroke tolerance	mm	± 2.5	
Duty cycle	%	25	
Max. duty operational time	s	120 nominal dynamic load	
IP rating	IP65		
Insulation class	F		
Max. motor winding temp.	°C	155	
EMC	EN55014 IEC61000		
Gear box	Metal spur gears		
Gear box material	Aluminum alloy		
Rod and house material	Steel 12L14 STKM11A		
Feedback options	Potentiometer		
Operating and storage temperature	°C	-26 to 65	●
Manufacturing quality standards	ISO 9001:2008		
General actuator tolerance	%	± 15	

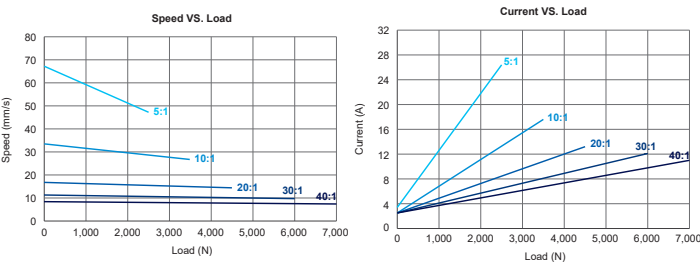
ACTUATOR STROKE DATA C

Stroke length B	mm	102	153	203	305	457	610	●
Retracted length A	mm	399	450	501	680	832	985	
Life time number single strokes		39000	26000	20000	13000	8700	6500	
Weight	kg	4.3	4.6	4.9	5.4	6.2	7.8	

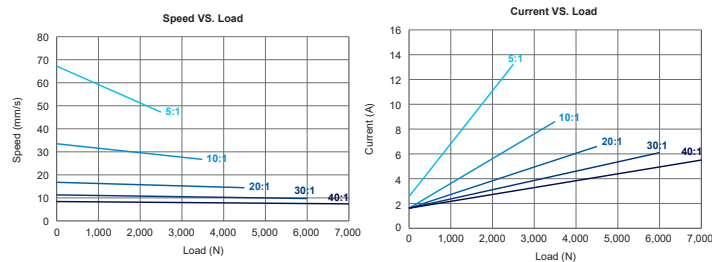
WIRING DIAGRAMS



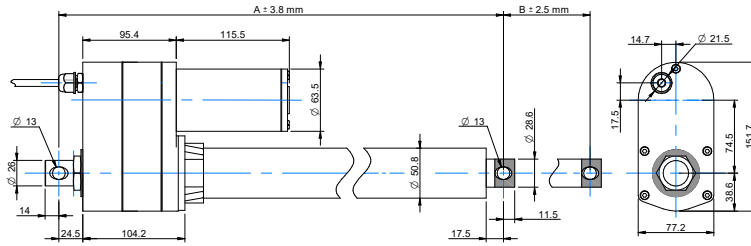
MOTOR GRAPHS 12 V



MOTOR GRAPHS 24 V



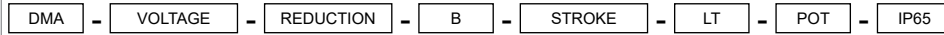
**DRAWING (mm)**



**PHOTO**



**MODEL NO. DESIGNATION**



Example: DMA-12-20-B-305-LT-POT-IP65

**OPTIONS MOUNTING BRACKET**



● 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	5	10	20	30	40	C
Voltage	V 12   24	12   24	12   24	12   24	12   24	
Current at nominal dynamic load	A 28   14	18   9	13   7	13   7	11   5.5	
Nominal dynamic load	N 2600	3500	4500	6000	7000	
Max. static load	N 14000	14000	14000	14000	14000	
Speed at nominal dynamic load	mm/s 47	27	14	9.8	7.4	
Speed at no load	mm/s 67	34	17	11	8.4	

**ACTUATOR FEATURES C**

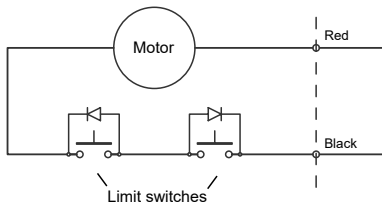
Type	Electric linear actuator	
Motor type	Brush PM DC motor	
Cable type	Flying wire (3+2 wires)	●
Cable length	mm 250	●
Voltage	V 12   24	●
Screw type	Ball screw	
Noise level	dB(A) ≤ 70	
Life time	4 million mm total stroke	
Limit switches	Yes	
Overload protection	By clutch	
Direction movement	By reversing voltage polarity	
Stroke tolerance	mm ± 2.5	
Duty cycle	% 25	
Max. duty operational time	s 120 nominal dynamic load	
IP rating	IP65	
Insulation class	F	
Max. motor winding temp.	°C 155	
EMC	EN55014 IEC61000	
Gear box	Metal spur gears	
Gear box material	Aluminum alloy	
Rod and house material	Steel 12L14 STKM11A	
Feedback	Potentiometer	
Operating and storage temperature	°C -26 to 65	●
Manufacturing quality standards	ISO 9001:2008	
General actuator tolerance	% ± 15	

**ACTUATOR STROKE DATA C**

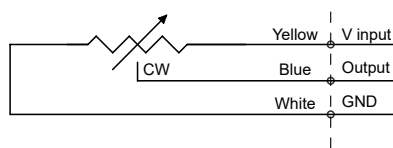
Stroke length B	mm 102	153	203	305	457	610	C
Retracted length A	mm 399	450	501	680	832	985	
Feedback	Ω/mm 100	67	50	33	22	17	
Life time number single strokes	39000	26000	20000	13000	8700	6500	
Weight	kg 4.3	4.6	4.9	5.4	6.2	7.8	

**WIRING DIAGRAMS**

**Motor wiring**



**Potentiometer wiring**

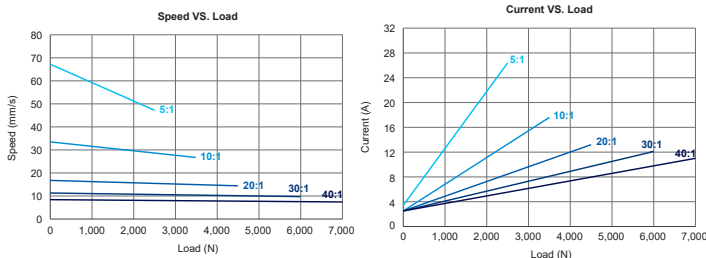


	Red	Black
Extend	+	-
Retract	-	+

**POTENTIOMETER DATA C**

Potentiometer type	Wire wound	
Resistance	kΩ 0.3 - 9.7	
Resolution	% 0.025	
Resistance tolerance	% ± 5	
Linearity	% ± 0.25	

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