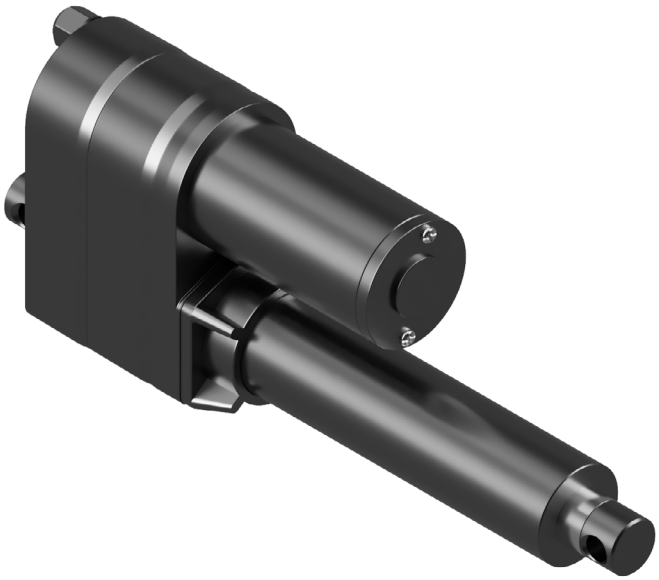
TRANSMOTEC



LINEAR ACTUATORS | 102 - 610 mm 9000 - 12500 N

DHA 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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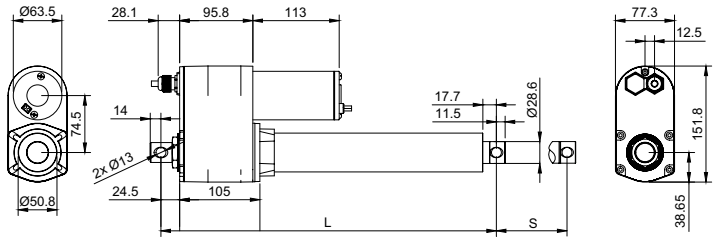
MODEL	MAX. STATIC LOAD N	NOMINAL DYNAMIC LOAD N	STROKE LENGTH mm	FEATURES	PAGE
DHA-X-X-A-X-LT-IP69K	18000	9000	102 to 610	Limit switch	1
DHA-X-X-A-X-LT-POT-IP69K	18000	9000	102 to 610	Limit switch and potentiometer	2
DHA-X-X-A-X-LT-HS2-IP69K	18000	9000	102 to 610	Limit switch and Hall sensor	3
DHA-X-X-B-X-LT-IP69K	13600	9000 to 12500	102 to 610	Limit switch	4
DHA-X-X-B-X-LT-POT-IP69K	13600	9000 to 12500	102 to 610	Limit switch and potentiometer	5

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DHA SERIES | 102 - 610 mm | ACME | LIMIT SWITCH

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

DHA - VOLTAGE - GEAR RATIO - A - STROKE - LT - IP69K

Example: DHA-12-40-A-102-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			C
Gear ratio		40:1	●
Voltage	V	12 | 24	
No load current	A	1.6 | 0.8	
Current at nominal dynamic load	A	22 | 11	
Nominal dynamic load	N	9000	
Max. static load	N	18000	
Speed at nominal dynamic load	mm/s	10	
Speed at no load	mm/s	14	

ACTUATOR STROKE DATA									C
Stroke length | S	mm	102	153	203	254	305	457	610	●
Retracted length | L	mm	399	450	501	552	680	832	985	
Lifetime number of single strokes		39000	26000	20000	16000	13000	8700	6600	
Weight	kg	4.2	4.6	5	5.3	5.6	7	8	

ACTUATOR WIRING CONFIGURATION

Wire	Definition	Description
Red	DC power	Connect red wire to “V+” and black wire to “V-” of DC power to exend the actuator. Switch the polarity of DC input to retract it. Input voltage is according to actuator voltage specification.
Black		

NOTES

1. At nominal dynamic load.

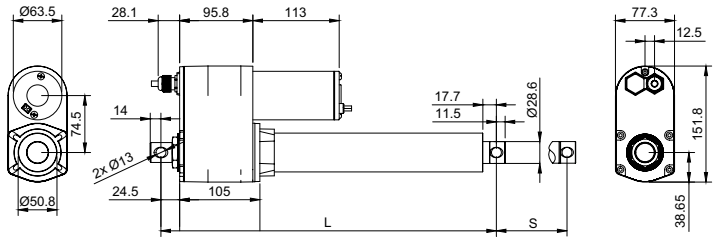
ACTUATOR FEATURES			C
Type		Electric linear actuator	
Motor type		Brushed PM DC motor	
Power cable		AWG14	●
Signal cable		AWG22	●
Cable length	mm	250	●
Voltage	V	12 | 24	●
Screw type		ACME	
Noise level	dB(A)	≤ 70	
Service life		4 million mm total stroke	
Limit switch		Yes	
Limit switch type		Non-adjustable	
Overload protection		By clutch	
Direction movement		By reversing voltage polarity	
Stroke tolerance	%	± 5	
Duty cycle	%	10	
Max. duty operational time1=	s	120	
IP rating		IP69K static	
Insulation class		F	
Max. motor winding temperature	°C	155	
EMC		2014/30/EU | IEC 61000	
Gearbox		Metal spur gears	
Gearbox material		Aluminum alloy	
Rod and house material		Stainless steel	
Operating and storage temperature	°C	-25 to 65	●
Manufacturing standard		ISO 9001:2015	
Performance tolerances	%	15	

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DHA SERIES | 102 - 610 mm | ACME | LIMIT SWITCH | POTENTIOMETER

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

DHA - VOLTAGE - GEAR RATIO - A - STROKE - LT - POT - IP69K

Example: DHA-12-40-A-102-LT-POT-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			C
Gear ratio		40:1	●
Voltage	V	12 | 24	
No load current	A	1.6 | 0.8	
Current at nominal dynamic load	A	22 | 11	
Nominal dynamic load	N	9000	
Max. static load	N	18000	
Speed at nominal dynamic load	mm/s	10	
Speed at no load	mm/s	14	

ACTUATOR STROKE DATA									C
Stroke length | S	mm	102	153	203	254	305	457	610	●
Retracted length | L	mm	399	450	501	552	680	832	985	
Lifetime number of single strokes		39000	26000	20000	16000	13000	8700	6600	
Weight	kg	5	5.4	5.8	6.1	6.4	7.8	8.8	

ACTUATOR WIRING CONFIGURATION

Wire	Definition	Description
Red	DC power	Connect red wire to “V+” and black wire to “V-” of DC power to extend the actuator. Switch the polarity of DC input to retract it. Input voltage is according to actuator voltage specification.
Black		
Yellow	Vin	Input voltage 70 V max.
Blue	POT output	Potentiometer specification is 10 kΩ, 10 turns, tolerance ±5 %. The potential value can be measured through the POT output and GND wires.
White	GND	Signal GND. Both for POT output and customer signal receiving device

POTENTIOMETER RESOLUTION								
Stroke length | S	mm	102	153	203	254	304	457	610
Resolution	Ω/mm	48	34	28	28	17	12	10

NOTES

1. At nominal dynamic load.

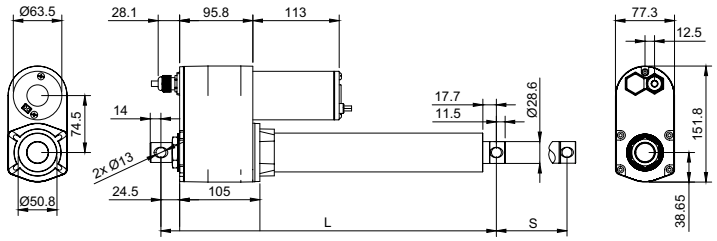
ACTUATOR FEATURES			C
Type		Electric linear actuator	
Motor type		Brushed PM DC motor	
Power cable		AWG14	●
Signal cable		AWG22	●
Cable length	mm	250	●
Voltage	V	12 | 24	●
Screw type		ACME	
Noise level	dB(A)	≤ 70	
Service life		4 million mm total stroke	
Limit switch		Yes	
Limit switch type		Non-adjustable	
Overload protection		By clutch	
Direction movement		By reversing voltage polarity	
Stroke tolerance	%	± 5	
Duty cycle	%	10	
Max. duty operational time1=	s	120	
IP rating		IP69K static	
Insulation class		F	
Max. motor winding temperature	°C	155	
EMC		2014/30/EU | IEC 61000	
Gearbox		Metal spur gears	
Gearbox material		Aluminum alloy	
Rod and house material		Stainless steel	
Feedback		Potentiometer	
Operating and storage temperature	°C	-25 to 65	●
Manufacturing standard		ISO 9001:2015	
Performance tolerances	%	15	

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DHA SERIES | 102 - 610 mm | ACME | LIMIT SWITCH | HALL SENSOR

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

DHA - VOLTAGE - GEAR RATIO - A - STROKE - LT - HS2 - IP69K

Example: DHA-12-40-A-102-LT-HS2-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			C
Gear ratio		40:1	●
Voltage	V	12 | 24	
No load current	A	1.6 | 0.8	
Current at nominal dynamic load	A	22 | 11	
Nominal dynamic load	N	9000	
Max. static load	N	18000	
Speed at nominal dynamic load	mm/s	10	
Speed at no load	mm/s	14	

ACTUATOR STROKE DATA									C
Stroke length | S	mm	102	153	203	254	305	457	610	●
Retracted length | L	mm	399	450	501	552	680	832	985	
Lifetime number of single strokes		39000	26000	20000	16000	13000	8700	6600	
Weight	kg	5	5.4	5.8	6.1	6.4	7.8	8.8	

ACTUATOR WIRING CONFIGURATION

Wire	Definition	Description
Red	DC power	Connect red wire to “V+” and black wire to “V-” of DC power to extend the actuator. Switch the polarity of DC input to retract it. Input voltage is according to actuator voltage specification.
Black		
Yellow	Vin	Input voltage range 5 to 20 V.
Blue	Hall output	High = 1.2 V Low = GND Hall sensor resolution 0.5 pulse/mm.
White	GND	Ground.

NOTES

1. At nominal dynamic load.

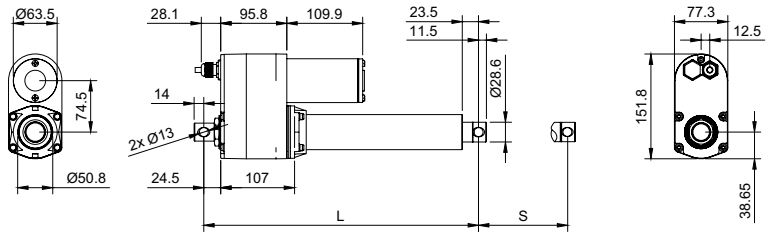
ACTUATOR FEATURES			C
Type		Electric linear actuator	
Motor type		Brushed PM DC motor	
Power cable		AWG14	●
Signal cable		AWG22	●
Cable length	mm	250	●
Voltage	V	12 | 24	●
Screw type		ACME	
Noise level	dB(A)	≤ 70	
Service life		4 million mm total stroke	
Limit switch		Yes	
Limit switch type		Non-adjustable	
Overload protection		By clutch	
Direction movement		By reversing voltage polarity	
Stroke tolerance	%	± 5	
Duty cycle	%	10	
Max. duty operational time1=	s	120	
IP rating		IP69K static	
Insulation class		F	
Max. motor winding temperature	°C	155	
EMC		2014/30/EU | IEC 61000	
Gearbox		Metal spur gears	
Gearbox material		Aluminum alloy	
Rod and house material		Stainless steel	
Feedback		Hall sensor	
Operating and storage temperature	°C	-25 to 65	●
Manufacturing standard		ISO 9001:2015	
Performance tolerances	%	15	

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DHA SERIES | 102 - 610 mm | BALLSCREW | LIMIT SWITCH

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

DHA - VOLTAGE - GEAR RATIO - B - STROKE - LT - IP69K

Example: DHA-24-20-B-102-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				C
Gear ratio		20:1	30:1	●
Voltage	V	24	24	
No load current	A	1.8	1.5	
Current at nominal dynamic load	A	11	12	
Nominal dynamic load	N	9000	12500	
Max. static load	N	13600	13600	
Speed at nominal dynamic load	mm/s	16	11	
Speed at no load	mm/s	20	14	

ACTUATOR STROKE DATA							C
Stroke length | S	mm	102	203	305	457	610	●
Retracted length | L	mm	399	450	601	753	985	
Lifetime number of single strokes		39000	20000	13000	8700	6600	
Weight	kg	4.8	5.3	6	7.5	8	

ACTUATOR WIRING CONFIGURATION

Wire	Definition	Description
Red	DC power	Connect red wire to “V+” and black wire to “V-” of DC power to exend the actuator. Switch the polarity of DC input to retract it. Input voltage is according to actuator voltage specification.
Black		

NOTES

1. At nominal dynamic load.

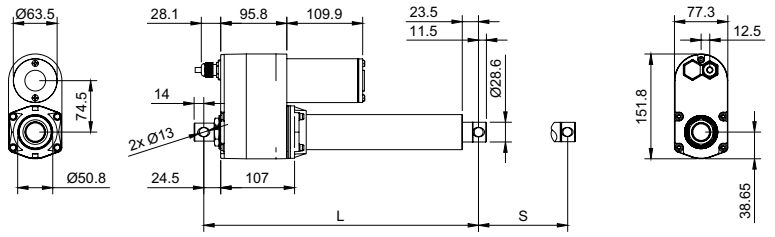
ACTUATOR FEATURES			C
Type		Electric linear actuator	
Motor type		Brushed PM DC motor	
Power cable		AWG14	●
Signal cable		AWG22	●
Cable length	mm	250	●
Voltage	V	24	●
Screw type		Ball screw	
Noise level	dB(A)	≤ 70	
Service life		4 million mm total stroke	
Limit switch		Yes	
Limit switch type		Non-adjustable	
Overload protection		By clutch	
Direction movement		By reversing voltage polarity	
Stroke tolerance	%	± 5	
Duty cycle	%	10	
Max. duty operational time1=	s	90	
IP rating		IP69K static	
Insulation class		F	
Max. motor winding temperature	°C	155	
EMC		2014/30/EU | IEC 61000	
Gearbox		Metal spur gears	
Gearbox material		Aluminum alloy	
Rod and house material		Stainless steel	
Operating and storage temperature	°C	-25 to 65	●
Manufacturing standard		ISO 9001:2015	
Performance tolerances	%	15	

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DHA SERIES | 102 - 610 mm | BALLSCREW | LIMIT SWITCH | POTENTIOMETER

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

DHA - VOLTAGE - GEAR RATIO - B - STROKE - LT - POT - IP69K

Example: DHA-24-20-B-102-LT-POT-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				C
Gear ratio		20:1	30:1	●
Voltage	V	24	24	
No load current	A	1.8	1.5	
Current at nominal dynamic load	A	11	12	
Nominal dynamic load	N	9000	12500	
Max. static load	N	13600	13600	
Speed at nominal dynamic load	mm/s	16	11	
Speed at no load	mm/s	20	14	

ACTUATOR STROKE DATA							C
Stroke length | S	mm	102	203	305	457	610	●
Retracted length | L	mm	399	450	601	753	985	
Lifetime number of single strokes		39000	20000	13000	8700	6600	
Weight	kg	5.2	5.8	6.9	7.5	8.9	

ACTUATOR WIRING CONFIGURATION

Wire	Definition	Description
Red	DC power	Connect red wire to “V+” and black wire to “V-” of DC power to extend the actuator. Switch the polarity of DC input to retract it. Input voltage is according to actuator voltage specification.
Black		
Yellow	Vin	Input voltage 5 to 32 V.
Blue	Hall output	Potentiometer specification is 10 kΩ, 10 turns, tolerance ±5 %. The potential value can be measured through the POT output and GND wires.
White	GND	Signal GND. Both for POT output and customer signal receiving device

POTENTIOMETER RESOLUTION						
Stroke length | S	mm	102	203	305	457	610
Resolution	Ω/mm	77	44	28	20	16

ACTUATOR FEATURES			C
Type		Electric linear actuator	
Motor type		Brushed PM DC motor	
Power cable		AWG14	●
Signal cable		AWG22	●
Cable length	mm	250	●
Voltage	V	24	●
Screw type		Ball screw	
Noise level	dB(A)	≤ 70	
Service life		4 million mm total stroke	
Limit switch		Yes	
Limit switch type		Non-adjustable	
Overload protection		By clutch	
Direction movement		By reversing voltage polarity	
Stroke tolerance	%	± 5	
Duty cycle	%	10	
Max. duty operational time1=	s	90	
IP rating		IP69K static	
Insulation class		F	
Max. motor winding temperature	°C	155	
EMC		2014/30/EU | IEC 61000	
Gearbox		Metal spur gears	
Gearbox material		Aluminum alloy	
Rod and house material		Stainless steel	
Feedback		Potentiometer	
Operating and storage temperature	°C	-25 to 65	●
Manufacturing standard		ISO 9001:2015	
Performance tolerances	%	15	

NOTES

1. At nominal dynamic load.

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