

# Linear actuator

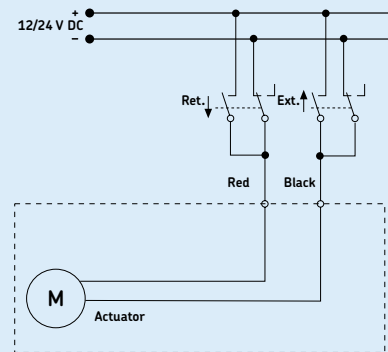
CAHB-21 series

## Benefits

- High efficiency ball screw
- Extension tube (stainless steel)
- Protection tube (steel)
- Enhanced corrosion resistance
- Mechanical overload protection (clutch)
- Lubricated for service life
- Robust, designed for tough environment
- No back driving
- Certified (CE: EN 55011)

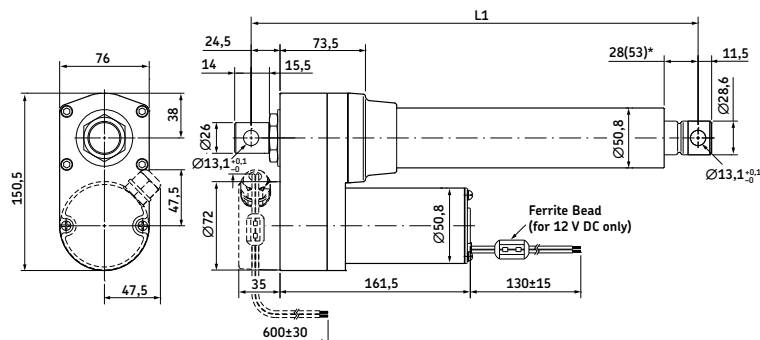


Connecting diagram



Dimensional drawing

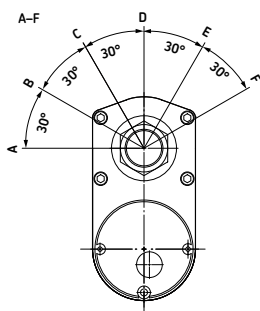
Basic configuration (dashed line for optional limit switch)



Without limit switch:  
 RED (+) & BLACK (-) = retraction  
 RED (-) & BLACK (+) = extension  
 With limit switch:  
 RED (+) & BLACK (-) = extension  
 RED (-) & BLACK (+) = retraction

Legend:  
 L1 = retracted length  
 \* 53 = dimension with limit switch

Different rear attachment



	With limit switch <sup>1)</sup>						Without limit switch <sup>2)</sup>					
Stroke (mm)	102	153	204	305	457	610	102	153	204	305	457	610
L1 Retracted length	393	444	495	659	811	964	317	368	419	521	735	888

<sup>1)</sup> Tolerance: S, L1 and L2 = ± 5,0 mm (if S ≥ 305 mm, S = ± 7,5 mm)

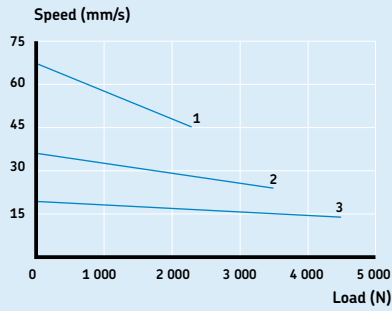
<sup>2)</sup> Tolerance: S = ± 2,5 mm and L1, L2 = ± 3,8 mm

Technical data

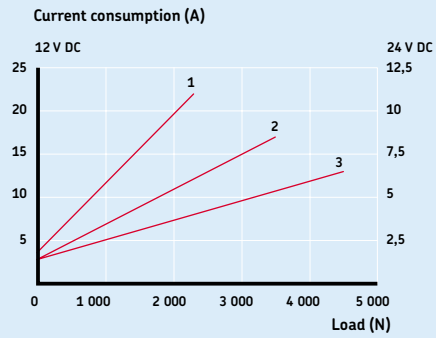
	Unit	CAHB-21... 1	CAHB-21... 2	CAHB-21... 3
Push load	N	2 300	3 500	4 500
Pull load	N	2 300	3 500	4 500
Speed (full load to no load)	mm/s	45 to 65	24 to 36	14 to 19
Stroke	mm	102 to 610	102 to 610	102 to 610
Retracted length	mm	—*	—*	—*
Voltage	V DC	12 or 24	12 or 24	12 or 24
Power consumption	W	N/A	N/A	N/A
Current consumption	12 V DC	22	17	13
	24 V DC	11	8,5	6,5
Duty cycle	%	25	25	25
Ambient temperature	°C	-40 to +85	-40 to +85	-40 to +85
Type of protection	IP	66	66	66
Weight (at 305 mm stroke)	kg	6,5	6,5	6,5
Color	—	Black	Black	Black

\* see above table

Performance diagrams



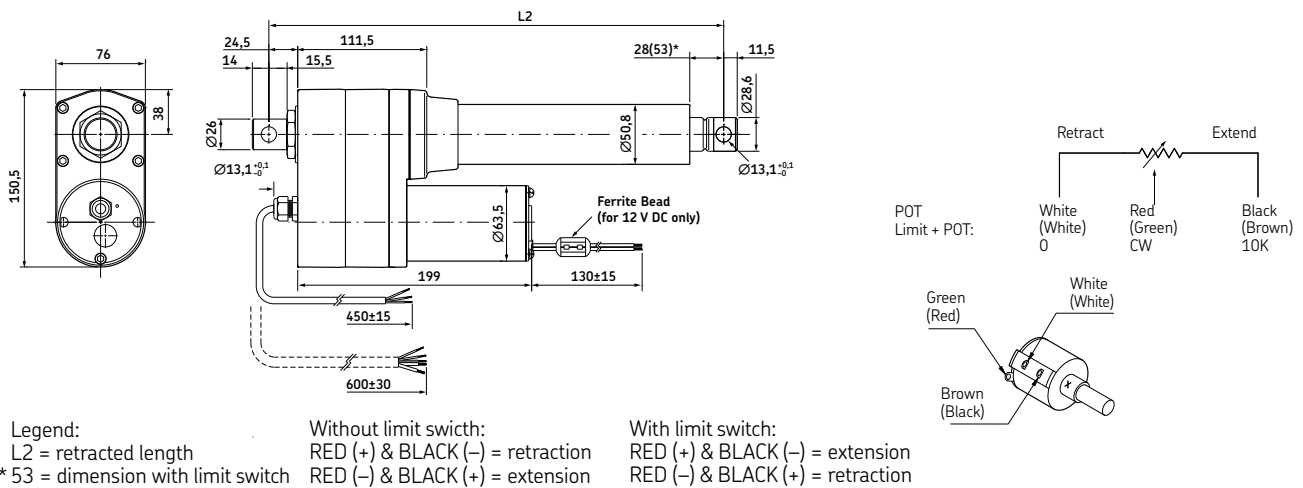
Speed-load diagram



Current-load diagram

Dimensional drawing

Optional potentiometer (dashed line for optional limit switch)



Stroke (mm)	With limit switch <sup>1)</sup>						Without limit switch <sup>2)</sup>					
	102	153	204	305	457	610	102	153	204	305	457	610
L2 Retracted length	431	482	533	697	849	1 002	355	406	457	559	773	926

<sup>1)</sup> Tolerance: S and L2 = ± 5,0 mm (If S ≥ 305 mm, S = ± 7,5 mm)

<sup>2)</sup> Tolerance: S = ± 2,5 mm and L2 = ± 3,8 mm

Potentiometer resolution

Stroke (mm)	102	153	204	305	457	610
Ohm/mm	59,0	59,0	29,5	29,5	9,84	9,84

C A H B - 2 1 - [ ] [ ] N - [ ] [ ] [ ] [ ] - A [ ] [ ] [ ] [ ] [ ] - 0 0 0

**Type**

**Voltage:**

12 V DC  
24 V DC

A  
B

**Load:**

2 300 N  
3 500 N  
4 500 N

1  
2  
3

**Screw:**

Ball screw

N

**Stroke:**

102 mm  
153 mm  
204 mm  
305 mm  
457 mm  
610 mm

102  
153  
204  
305  
457  
610

**Retracted length:**

*Stroke*

**with L.S.<sup>1)</sup>**

102 mm  
153 mm  
204 mm  
305 mm  
457 mm  
610 mm

w/o POT<sup>2)</sup>

393 mm  
444 mm  
495 mm  
659 mm  
811 mm  
964 mm

with POT<sup>2)</sup>

431 mm  
482 mm  
533 mm  
697 mm  
849 mm  
A02 mm (1 002 mm)

**w/o L.S.<sup>1)</sup>**

102 mm  
153 mm  
204 mm  
305 mm  
457 mm  
610 mm

317 mm  
368 mm  
419 mm  
521 mm  
735 mm  
888 mm

355 mm  
406 mm  
457 mm  
559 mm  
773 mm  
926 mm

**IP:**

Standard (IP 66)

A

**Front attachment:**

Standard (hole: Ø 13,1 mm)  
Customized

A  
X

**Rear attachment:**

Standard (0° and hole: Ø 13,1 mm)  
30°  
60°  
90°  
120°  
150°  
Customized

A  
B  
C  
D  
E  
F  
X

**Option 1:**

None  
Limit switch (only for load version 4 500 N)

0  
L

**Option 2:**

None  
Potentiometer

0  
P

**Option 3:**

None  
Thermal protection

0  
T

<sup>1)</sup>L.S. = Limit switch  
<sup>2)</sup>POT = Potentiometer

