

Actuator LA23

Data sheet



LA23

The LA23 actuator is a small and strong push/pull actuator (up to 2500 N). The LA23 can be used in various applications where size is important.

Some of the benefits the LA23 offers you are:

- Compact design
- High lifting force
- Exchangeable cables

The standard LA23 is available for both the CARELINE® and MEDLINE® product ranges.



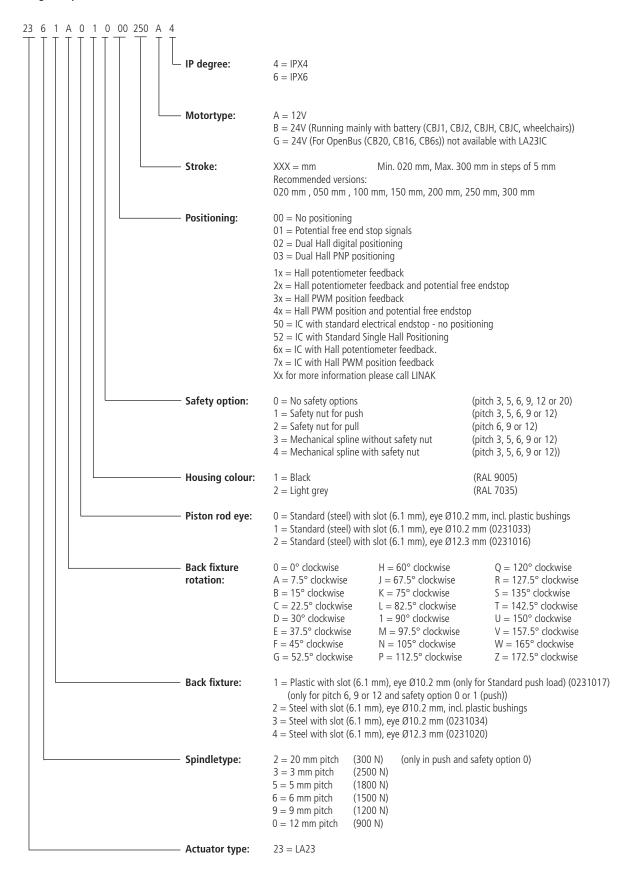
Features and options:

- Load in push: 2500N, 1800N, 1500N, 1200N, 900N or 300N
- Load in pull: 2500N, 1800N, 1500N, 1200N, 900N or 300N
- Housing colour: Grey or black
- Protection class: IPX4, IPX6
- Motor: 12 V DC, 24 V DC
- Stroke length: 20 300 mm
- Built-in dimensions: 110 146 mm + stroke length
- Positioning options: Potential free end stop signals Hall potentiometer or Hall PWM position Single Hall, Dual Hall
- Back fixture material: Plastic or steel
- Nut: Guided
- Safety nut: In push or pull (2500N and 1800N version only safety nut in push)
- Mechanical spline: Yes
- Built-in electrical end-stop: Yes
- Exchangeable cable: Yes
- Static safety factor: 2.5
- Noise level: Max. 58.5 dB(A) (At nominal voltage and with no load, according to EN ISO 3743-1)
- Mechanical end stop: Yes
- Integrated Control Yes

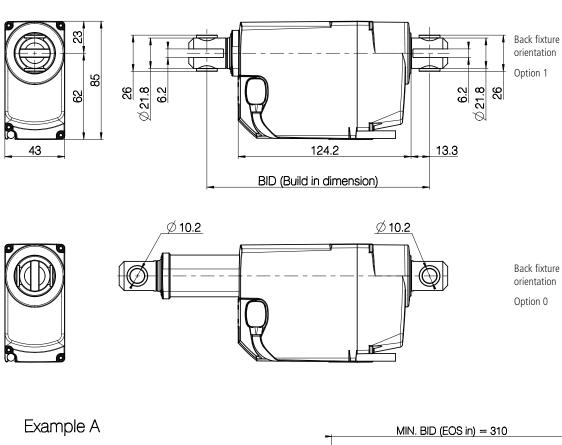
Usage:

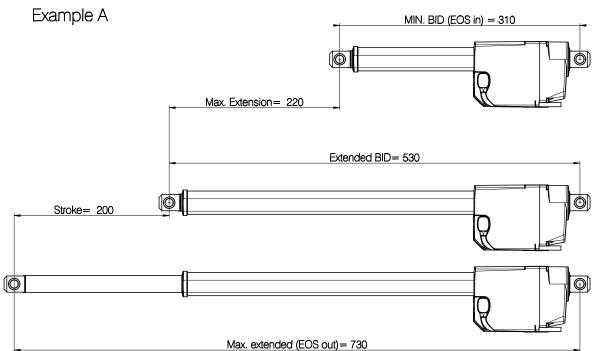
- Duty cycle: 10%, 2 minutes continuous use followed by 18 minutes not in use
- Usage temperature: +5° +40° normal operating temp.
 -30° +50° according to test conditions: ISO 7176-9
- Storage temperature: -45°C to +70°C (according to ISO 7176-9)
- Compatibility: CB20, CB16, CB6S, CBJ 1/2, CBJC, CBJH, CBD4, CBD5 & CBD6*, CA30, CA40, CO61 and SMPS-T160 (for combination possibilities, please see the User Manual for SMPS-T160 on our website)
 - * SLS must be ignored Up + Down in the CBD4, CBD5 or CBD6 when configured for LA23.
 - * Only the 3, 6 & 12 mm versions can be configured in the CBD4, CBD5 or CBD6.
 - * Only tested for single use.
- Approvals: IEC60601-1, ANSI/AAMI ES60601-1, CAN/CSA 22.2 No 60601-01.
 - LA23IC is not approved according to the above. LA23 in combination with CBD4, CBD5 & CBD6 has no approvals.
- Flammability rate: Enclosure UL94-V0

LA23 Ordering example:



Dimensions:





The built-in dimension depends upon the chosen safety option and stroke length. Please see the table below to decide upon the built-in dimension.

Safety option	Stroke length	Spindle pitch	Min. built-in Dimensions
0 = No safety option	20 - 49	6, 9, 12 or 20	160
0 = No safety option	20 - 49	3, 5	168
1 = Safety nut for push	20 - 49	6, 9 or 12	160
1 = Safety nut for push	20 - 49	3, 5	168
2 = Safety nut for pull	20 - 49	6, 9 or 12	172
3 = Mechanical Spline for push	20 - 49	6, 9 or 12	180
3 = Mechanical Spline for push	20 - 49	3, 5	196
4 = Mechanical Spline & safety nut for push	20 - 49	6, 9 or 12	180
4 = Mechanical Spline & safety nut for push	20 - 49	3, 5	196
0 = No safety option	50 - 200	6, 9, 12 or 20	110 + stroke
0 = No safety option	50 - 200	3, 5	118 + stroke
1 = Safety nut for push	50 - 200	6, 9 or 12	110 + stroke
1 = Safety nut for push	50 - 200	3, 5	118 + stroke
2 = Safety nut for pull	50 - 200	6, 9 or 12	122 + stroke
3 = Mechanical Spline for push	50 - 200	6, 9 or 12	130 + stroke
3 = Mechanical Spline for push	50 - 200	3, 5	146 + stroke
4 = Mechanical Spline & safety nut for push	50 - 200	6, 9 or 12	130 + stroke
4 = Mechanical Spline & safety nut for push	50 - 200	3, 5	146 + stroke
0 = No safety option	201 - 300	6, 9, 12 or 20	130 + stroke
0 = No safety option	201 - 300	3, 5	138 + stroke
1 = Safety nut for push	201 - 300	6, 9 or 12	130 + stroke
1 = Safety nut for push	201 - 300	3, 5	138 + stroke
2 = Safety nut for pull	201 - 300	6, 9 or 12	142 + stroke
3 = Mechanical Spline for push	201 - 300	6, 9 or 12	150 + stroke
3 = Mechanical Spline for push	201 - 300	3, 5	166 + stroke
4 = Mechanical Spline & safety nut for push	201 - 300	6, 9 or 12	150 + stroke
4 = Mechanical Spline & safety nut for push	201 - 300	3, 5	166 + stroke

It is possible to order LA23 with extended built-in dimensions if the following requirements are fulfilled

	Spindle pitch = 6, 9, 12, 20	Spindle pitch = 3, 5	Spindle pitch = 6, 9, 12	Spindle pitch = 6, 9, 12	Spindle pitch = 3, 5
	Safety option 0 : No safety option		Safety option 2 :	Safety option 3 : Spline without safety nut	
	Safety option		Safety nut pull	Safety option 4 : Spline + safety nut push	
Max. built-in dimensions	≤ 730 - stroke	≤ 738 - stroke	≤ 742 - stroke	≤ 750 - stroke	≤ 766 - stroke

Example: A) 6 mm pitch no safety option, stroke 200, BID can be max. (730 - 200) = 530 B) 3 mm pitch no safety option, stroke 20, BID can be max. (738 - 20) = 718

Technical specifications:

Power supply	Spindle pitch (mm)	Load max. Push or Pull (N)	Motor type	*Typical speed at 0/ full load (mm/sec.)	*Typical current at 0/ full load (Amp.)	Inrush current (Amp)
12VDC	3	2500 / 2500	A: 12V	3.1 / 2.5	0.8 / 3.6	13.4
CBJ1/2, CBJH and CBJC	3	2500 / 2500	B: 24V	3.2 / 2.6	0.4 / 1.9	8.7
OpenBus™	3	2500 / 2500	G: 24V	3.3 / 2.7	0.3 / 1.4	6.2
12VDC	5	1800 / 1800	A: 12V	5.4 / 4.2	0.8 / 3.9	13.4
CBJ1/2, CBJH and CBJC	5	1800 / 1800	B: 24V	5.4 / 4.5	0.4 / 1.9	8.7
OpenBus™	5	1800 / 1800	G: 24V	5.6 / 4.6	0.3 / 1.4	6.2
12VDC	6	1500 / 1500	A: 12V	6.6 / 5.2	0.8 / 3.6	13.4
CBJ1/2, CBJH and CBJC	6	1500 / 1500	B: 24V	6.4 / 5.5	0.4 / 1.7	8.7
OpenBus™	6	1500 / 1500	G: 24V	6.7 / 5.5	0.3 / 1.3	6.2
12VDC	9	1200 / 1200	A: 12V	9.9 / 7.5	0.9 / 4.0	13.4
CBJ1/2, CBJH and CBJC	9	1200 / 1200	B: 24V	9.5 / 8.1	0.4 / 1.9	8.7
OpenBus™	9	1200 / 1200	G: 24V	9.9 / 8.1	0.3 / 1.3	6.2
12VDC	12	900 / 900	A: 12V	13 / 9.6	0.9 / 3.8	13.4
CBJ1/2, CBJH and CBJC	12	900 / 900	B: 24V	12.6 / 10.4	0.4 / 1.9	8.7
OpenBus™	12	900 / 900	G: 24V	13.3 / 10.7	0.3 / 1.4	6.2
12VDC	20	300 / 300	A: 12V	21.5 / 18.6	0.8 / 4.3	-
CBJ1/2, CBJH and CBJC	20	300 / 300	B: 24V	21.6 / 20.2	0.4 / 2.3	-
OpenBus™	20	300 / 300	G: 24V	21.8 / 20.6	0.3 / 1.6	-

^{*} Typical values, measurements are made with an actuator in connection with a stable power supply. The typical values can have a variation of $\pm~20\%$ on the current values and $\pm~10\%$ on the speed values.

Safety nut and steel back fixture overview

Pitch (mm)	Load (N)	Safety nut	Steel back fixture	Plastic back fixture
20	300	Not an option	Required in pull	Only in push
12	900	Optional in push or pull	Required in pull	Only in push
9	1200	Optional in push or pull	Required in pull	Only in push
6	1500	Optional in push or pull	Required in pull	Only in push
5	1800	Optional in push (Safety nut 2500N not available in pull)	Always required	Not available
3	2500	Optional in push (Safety nut 2500N not available in pull)	Always required	Not available

Self-locking specifications

Spindle pitch	Without short circuit	With short circuit
20 mm pitch	100	300
12 mm pitch	750	900
9 mm pitch	750	1200
6 mm pitch	1200	1500
5 mm pitch	1600	1800
3 mm pitch	2500	2500

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