

Actuator

BD23

BD23 is a quiet and robust actuator, with its speed well-maintained either with or without load. Besides, BD23 can be presented with its cable coming either on the front or the rear end, depending on your choice, and is designed to be connected to the handset and power supply to make up a simple system without control box for furniture applications like recliner sofa.



Features

- Main application: Furniture, recliner sofa
- Input voltage: 24V DC
- Max. load: 1500N (Push / Pull)
- Typical speed at no load: 40 mm/sec
- Typical speed at full load: 33 mm/sec (1500N load)
- Stroke: 40 ~ 230 mm
- Noise level: ≤ 53 dB
- Color: Black
- Preset limit switches
- Duty cycle: 10%, max. 2 min. continuous operation in 20 min.
- Ambient operation temperature: -20°C ~ +65°C
- Certified: CE Marking, EMC Directive 2014/30/EU

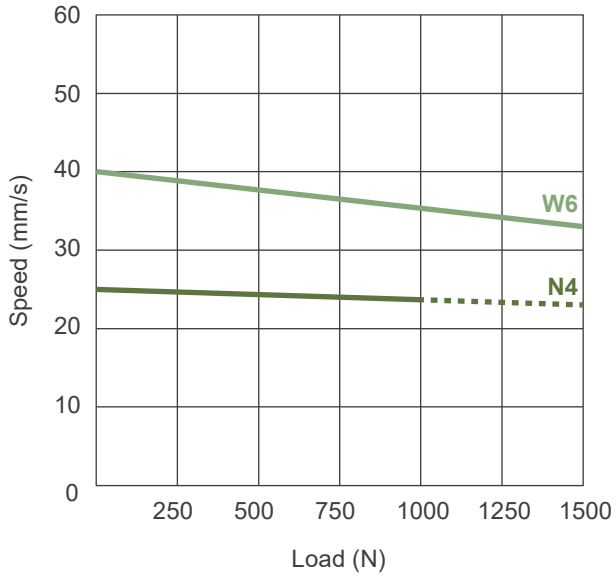
Options

- Location of cable outlet (refer to page 4)
- Different cable length (refer to page 4)
- There are 3 plastic nut type can be chosen

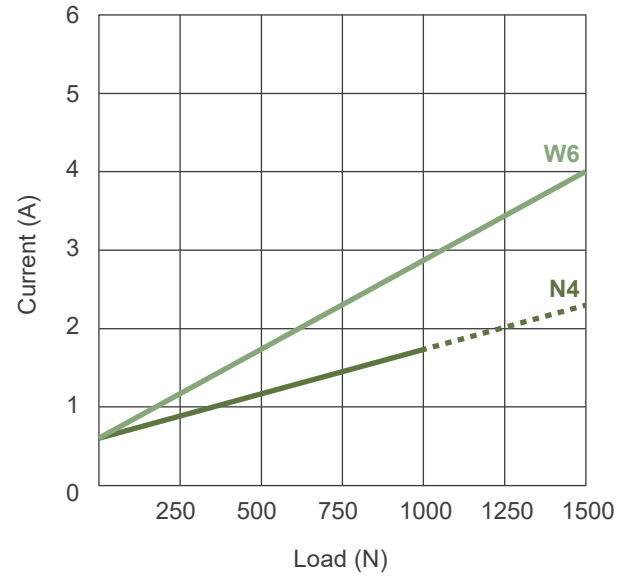
Performance Data

Model No.	Push Max. (N)	Pull Max. (N)	*Typical Speed (mm/s)		*Typical Current (A) @ 29V	
			No load	Full load	No load	Full load
BD23-XX-24-N4-XXX.XXX	1500	1000	25	23	0.6	2.3
BD23-XX-24-W6-XXX.XXX	1500	1500	40	33	0.6	4.0

Speed vs. Load



Current vs. Load



Push / Pull Load — Push Load - - -

Remarks:

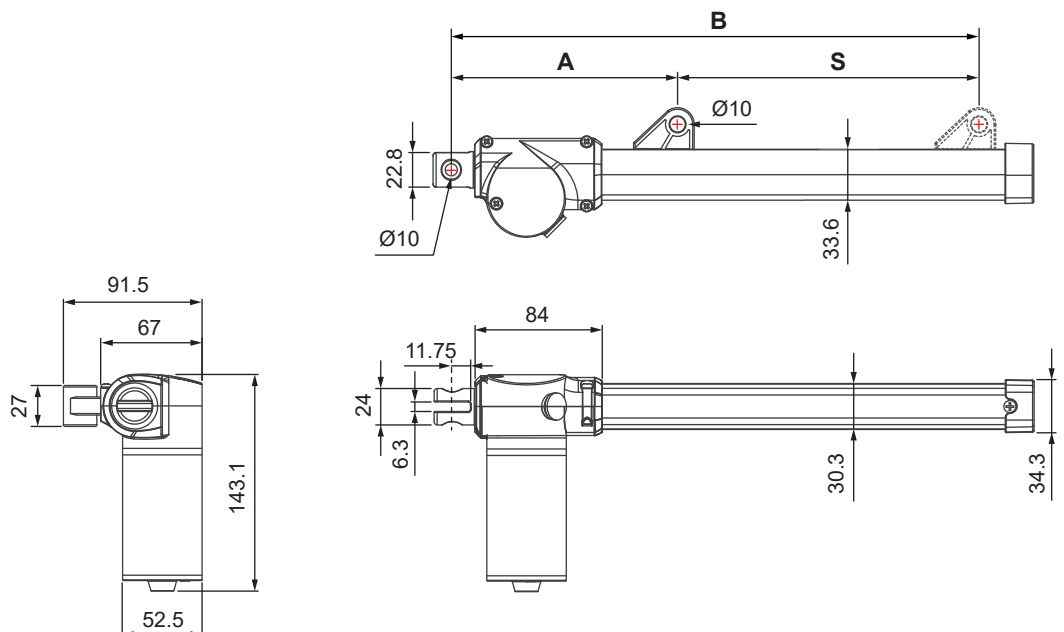
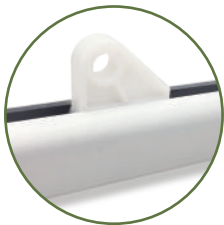
* The typical speed or typical current means the average value neither upper limit nor lower limit. The performance curves are made with typical values.

Dimensions

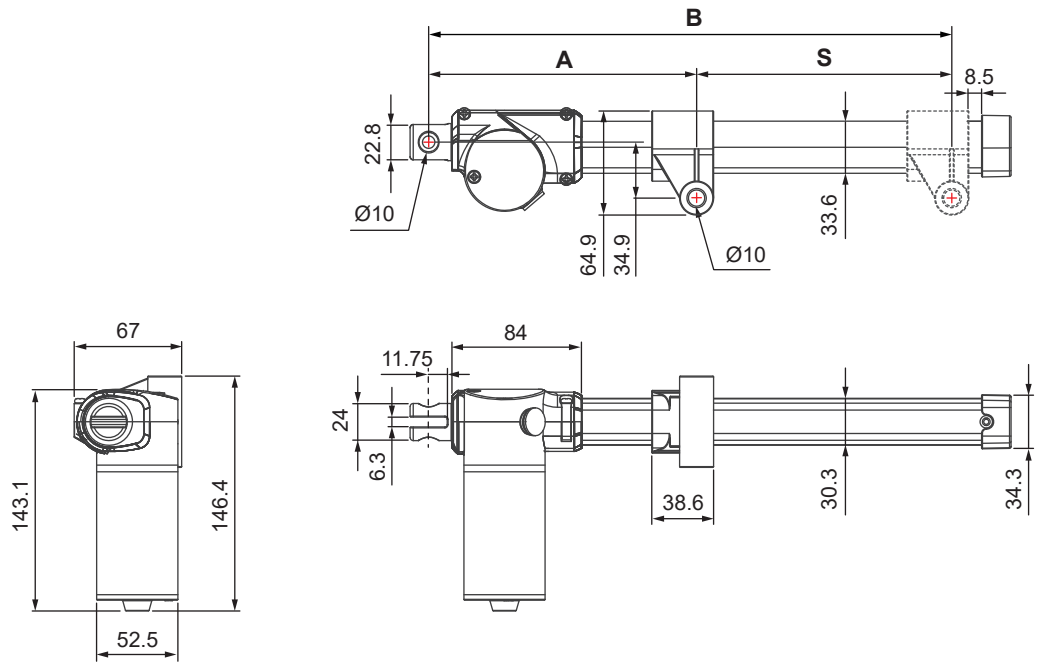
Nut type

Unit: mm

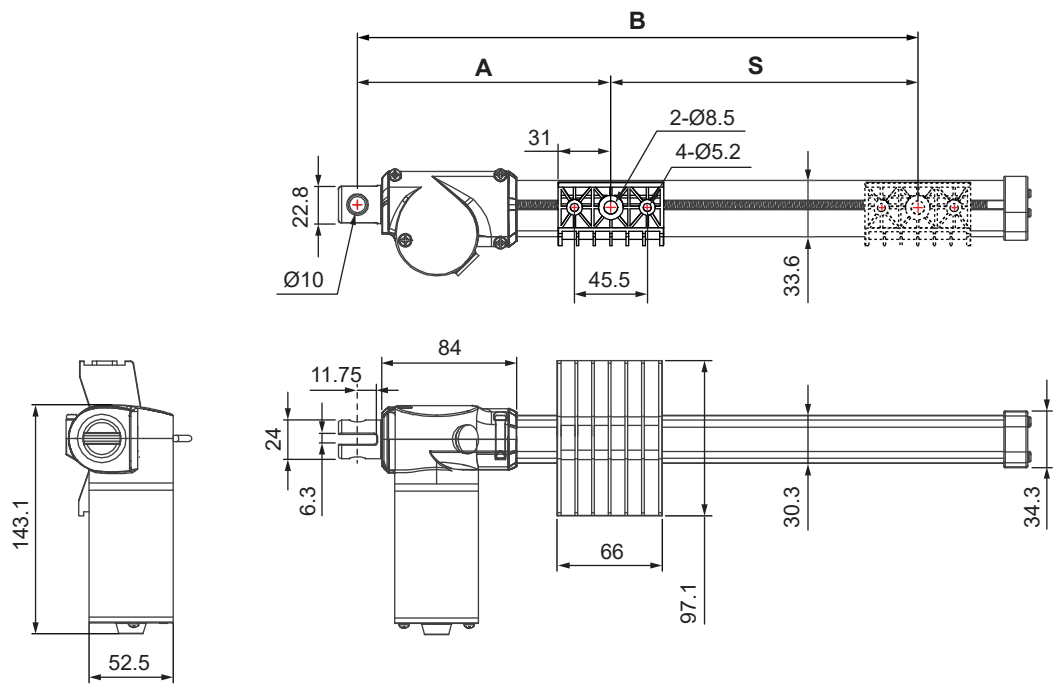
- R-type plastic nut



● B-type plastic nut



● C-type plastic nut



Installation Dimension

• Retracted length (A)

Nut type	Available stroke range (S)	Retracted length (A)
R, B	$40 \leq S \leq 230\text{mm}$	$A \geq 133\text{mm} (\pm 3\text{mm})$
C	$50 \leq S \leq 230\text{mm}$	$A \geq 156\text{mm} (\pm 3\text{mm})$

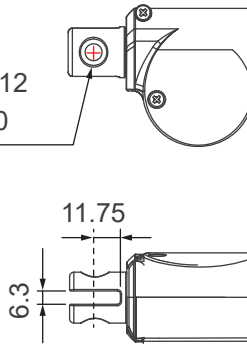
Extended length (B) = S + A

Rear Connector

2: Metal

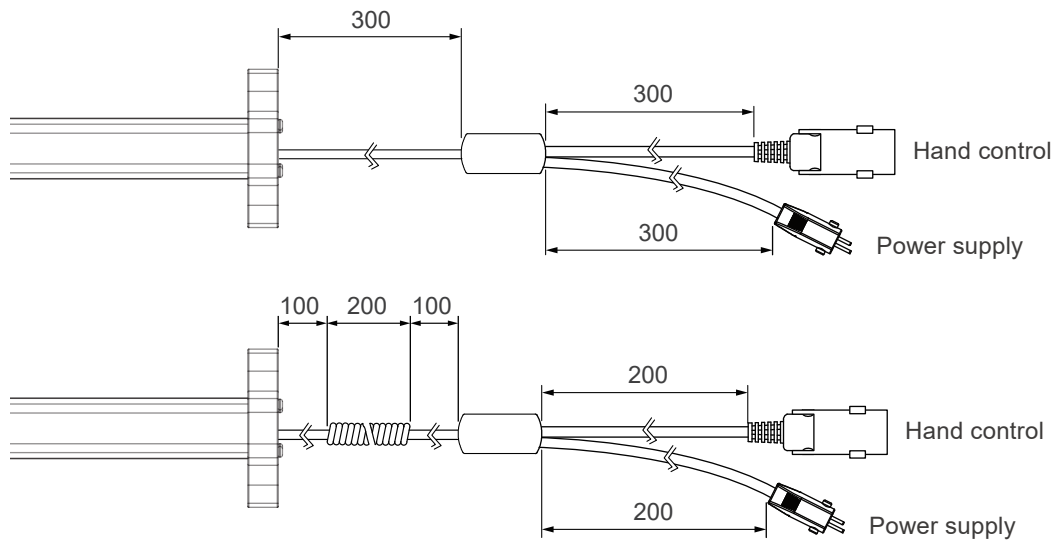
Diameter of pivot without bushing: Ø8, Ø10, Ø12

Diameter of pivot with plastic bushing: Ø8, Ø10



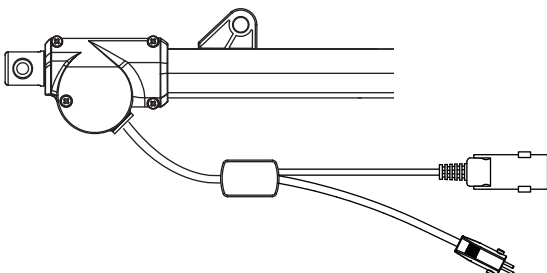
Cable Length

Dedicated cable DL1

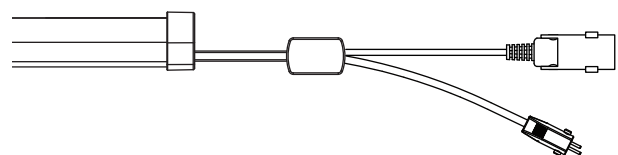


Location of cable outlet

• Rear end outlet



• Front end outlet



Note:

B-type plastic nut must choose rear end outlet.

Compatibility

Product	Model	BD23 spec
Seating frame (Not included in Moteck product scope)	6054	BD23-B2-24-N4-175.475-R4
	5181	BD23-C2-24-W6-156.360-F4
	368TX	BD23-R2-24-N4-156.360-F4
Control-handset	HB, H2G, TPSG	With Moteck dedicated cable DL1 (Fig. 1)
Control-hand switch	HR, HS02, HZ02, HZ03, HZ04, HZ05, HZ06	
Accessory	Switching mode power supply: TSW1	

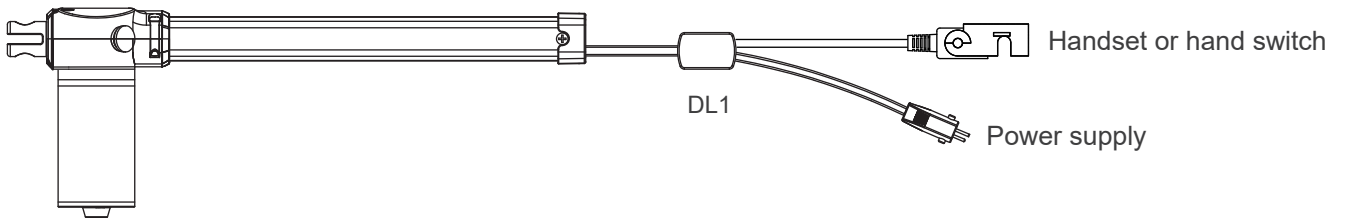
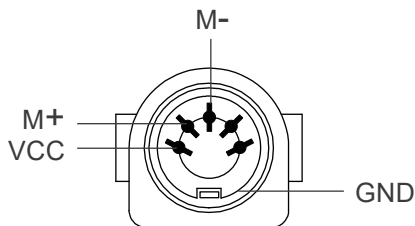


Fig.1 Dedicated cable DL1 to connect to power supply and control, without control box.

Cable Plug

Hand control connector: with Moteck U-type female connector

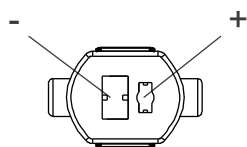


5-pin connector (Moteck pinout: C-DIN-51R)

Note:

Connect pin (M+) to "+" & pin (M-) to "-" of DC power, the actuator will extend.

Power Plug: with Moteck S-type DIN 41529 male plug



DIN 41529 plug



U-type

S-type

Ordering Key

BD23 - R 2 24 N4 133 363 R S

Nut type	B: B-type plastic nut C: C-type plastic nut R: R-type plastic nut <i>(refer to page 2 &3)</i>
Rear connector type	2: Metal <i>(refer to page 4)</i>
Input voltage	24: 24V DC
Motor and Spindle type	N4: 4500rpm, 4mm pitch W6: 5500rpm, 6mm pitch
Retracted length	XXX <i>(refer to page 4)</i>
Extended length	XXX <i>(refer to page 4)</i>
Location of cable outlet	F: Front end R: Rear end (B-type plastic nut must choose rear end outlet) <i>(refer to page 4)</i>
Cable length	6: 600mm all straight S: 600mm long with 200mm spiral <i>(refer to page 4)</i>

Certifications

The BD21 actuator is compliant with the following regulations, in terms of the essential conformity requirements of EMC Directive of 2014/30/EU.

Emission	Immunity
EN 55014-1:2006+A1:2009+A2:2011	EN 55014-2:1997+A2:200+A2+:2008 Catagory I

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