

Actuator ID10BT

ID10BT has a maximum push-pull force of 1000N, but it has high speed and low noise performance. Durable and waterproof, it is suitable for industrial applications with lighter loads but emphasizing speed performance.



Features and Options

Main applications: Industrial

Standard features:

- Input voltage: 24V DC
- Max. rated load: 1,000N (push or pull)
- Max. static load: 1,500N
- Max. speed at no load: 72mm/sec (typical value)
- Spindle type: ACME
- Gear ratio 4:1
- Stroke: 102 / 153 / 203 / 254 / 305 / 457mm
- Life cycle: 25,000 cycles, total stroke 18,000,000mm
- Noise level: ≤ 55 dB
- IP level: IP54
- Built-in CAM type limit switches (LT)
- Aluminum outer tube
- Stainless steel extension tube
- Color: Black
- Power cord length: 250mm (with bare wires)
- Duty cycle: 25%, max. 2 min. continuous operation in 8 min.
- Operating ambient temperature: -25°C ~ +65°C
- Compliant with EMC Directive 2014/30/EU

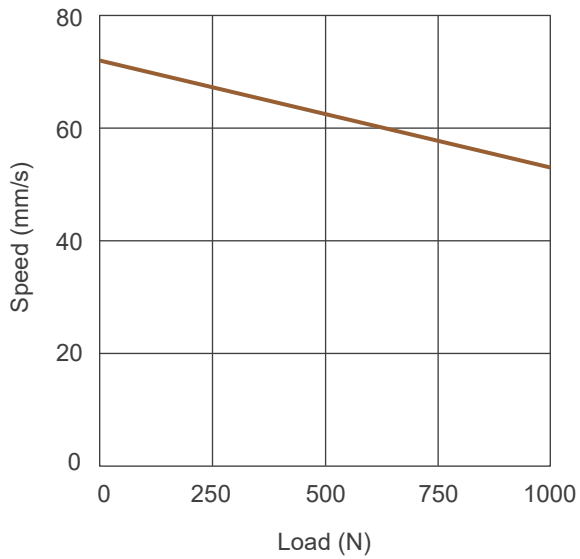
Options:

- Analog and absolute positioning feedback with Potentiometer (POT)
- IP level: IP65

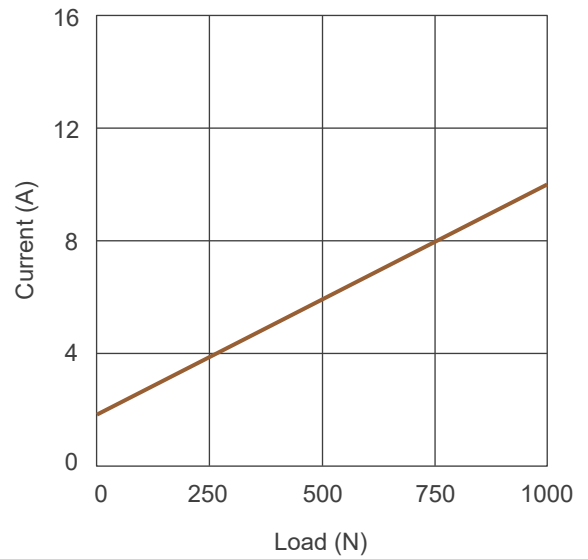
Performance Data

Model No.	Push / Pull Max. (N)	Typical Speed (mm/s)		Typical Current (A) @ 24V DC	
		No Load	Full Load	No Load	Full Load
ID10BT-24F5A-XXX-0X0XLX0	1000	72	53	1.8	10

Speed vs. Load



Current vs. 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.

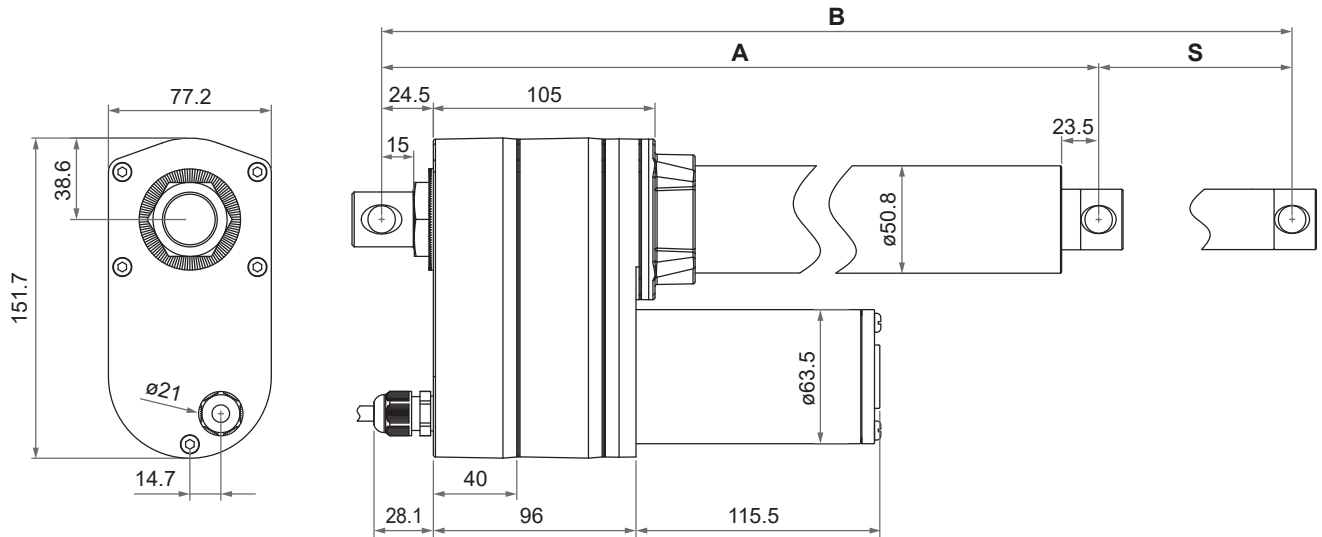
Dimensions

- Extended length (B) = Retracted length (A) + Stroke (S)
- Retracted length (A)

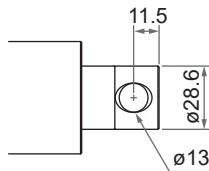
Stroke (S)	102 (4")	153 (6")	203 (8")	254 (10")	305 (12")	457 (18")
Retracted length (A)	359	410	460	511	613	765

(tolerance: $\pm 5\text{mm}$)

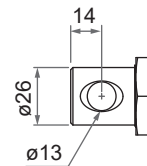
• Drawing



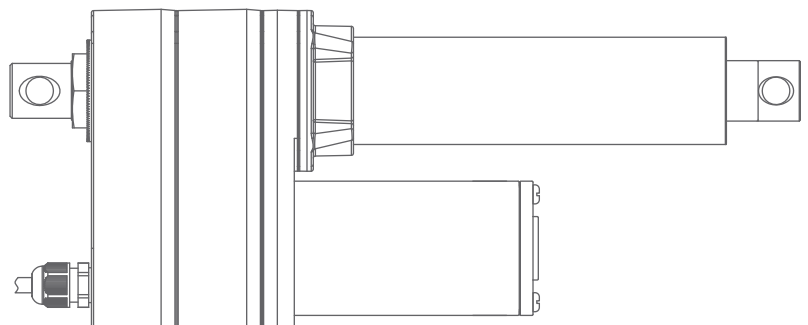
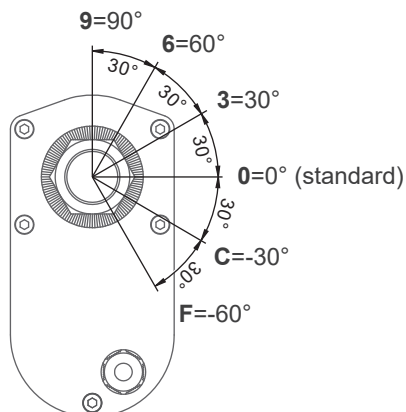
• Front connector



• Rear connector



• Pivot orientation of rear connector



Note: As an example in 0° pivot of rear connector.

Unit: mm

Compatibility

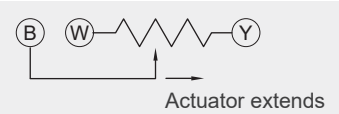
Product	Model	ID10BT spec
Control box	CI10	Without positioning feedback
	CI72	Standard
Accessory	MB30 Mounting bracket	Standard, mounting hole \varnothing 13mm.

Wiring

• Basic, without positioning feedback.

	Wire color	Definition	Descriptions
Power wires	Red	DC Power	Connect red wire to "Vdc +" & black wire to "Vdc -" of DC power to extend the actuator. Switch the polarity of DC input to retract it.
	Black		

• With Potentiometer (POT) absolute positioning feedback

	Wire color	Definition	Descriptions														
Power wires	Red	DC Power	Connect red wire to "Vdc +" & black wire to "Vdc -" of DC power to extend the actuator. Switch the polarity of DC input to retract it.														
	Black																
Signal wires	White	GND															
	Yellow	Vin	Input voltage 70V max.														
	Blue	POT output	<p>Potentiometer specification:</p> <ul style="list-style-type: none"> - Potentiometer 10K ohm, 10 turns. - Total resistance tolerance \pm5% <p>Output voltage: Between 0 ~ Vin</p> <p>The potentiometer resistance according to different strokes are as follows:</p> <table border="1"> <thead> <tr> <th>Stroke (mm)</th> <th>Resistance (tolerance: \pm0.3KΩ)</th> </tr> </thead> <tbody> <tr> <td>102 (4")</td> <td>0.3 ~ 8.1K</td> </tr> <tr> <td>153 (6")</td> <td>0.3 ~ 8.7K</td> </tr> <tr> <td>203 (8")</td> <td>0.3 ~ 9.2K</td> </tr> <tr> <td>254 (10")</td> <td>0.3 ~ 7.4K</td> </tr> <tr> <td>305 (12")</td> <td>0.3 ~ 8.8K</td> </tr> <tr> <td>457 (18")</td> <td>0.3 ~ 9.4K</td> </tr> </tbody> </table> <p>The resistance between blue and white wires increases when the actuator extends, and decreases when it retracts.</p> 	Stroke (mm)	Resistance (tolerance: \pm 0.3K Ω)	102 (4")	0.3 ~ 8.1K	153 (6")	0.3 ~ 8.7K	203 (8")	0.3 ~ 9.2K	254 (10")	0.3 ~ 7.4K	305 (12")	0.3 ~ 8.8K	457 (18")	0.3 ~ 9.4K
			Stroke (mm)	Resistance (tolerance: \pm 0.3K Ω)													
102 (4")	0.3 ~ 8.1K																
153 (6")	0.3 ~ 8.7K																
203 (8")	0.3 ~ 9.2K																
254 (10")	0.3 ~ 7.4K																
305 (12")	0.3 ~ 8.8K																
457 (18")	0.3 ~ 9.4K																

Ordering Key

ID10BT - 24 F 5A - 102 - 0 0 0 P L 4 0

Input voltage	24: 24V DC
Motor code	F: 3700rpm
Spindle type	5A: 5TPI 5.08mm pitch, ACME
Stroke	102: 102mm (4") 153: 153mm (6") 203: 203mm (8") 254: 254mm (10") 305: 305mm (12") 457: 457mm (18")
Reserved	0
Rear connector (Refer to Page 3)	0: 0° (standard) 3: 30° counter-clockwise 6: 60° counter-clockwise 9: 90° counter-clockwise C: -30° clockwise F: -60° clockwise
Reserved	0
Positioning feedback	0: None P: Potentiometer (POT)
Limit switch	L: Limit switches (LT)
IP level	4: IP54 (standard) 5: IP65
Reserved	0

Terms of Use

The user is responsible for application suitability of Moteck products. As ongoing improvement process continues, products listed on the Moteck website are subject to change without prior notice. Moteck reserves the right to terminate the sales or remove any product displayed on the website, or listed in its catalogues.