

Actuator ID10P

ID10P is an actuator dedicated to high-load and high-speed applications. The enhanced gearbox and internal structure make ID10P more suitable for vibration and harsh working environments. In addition, ID10P also has IP67, IP69K protection and passing The 500-hour salt spray test with high protection level coating is suitable for agricultural, construction and industrial fields.



Features and Options

Main applications: Industrial, Agriculture, Construction

Standard features:

- Input voltage: 24V DC
- Max. rated load: 12,500N (push or pull)
- Max. static load: 13,600N
- Speed at no load: 20 mm/sec (gear motor 20:1 average value)
- Spindle type: Ball Screw
- Gear motor: 20:1 / 30:1
- Stroke: 102 (4") / 203 (8") / 305 (12") mm
- Noise level: ≤ 70 dB
- IP level: IP67 / IP69K
- Overload protection by clutch
- Stroke control by built-in CAM limit
- Extension tube material: Stainless steel
- Color: Black
- Duty cycle: 10%, max. 1.5 min. continuous operation in 15 min.
- Operating ambient temperature: -25°C ~ +65°C
- Compliant with CE, EMC Directive 2014/30/EU

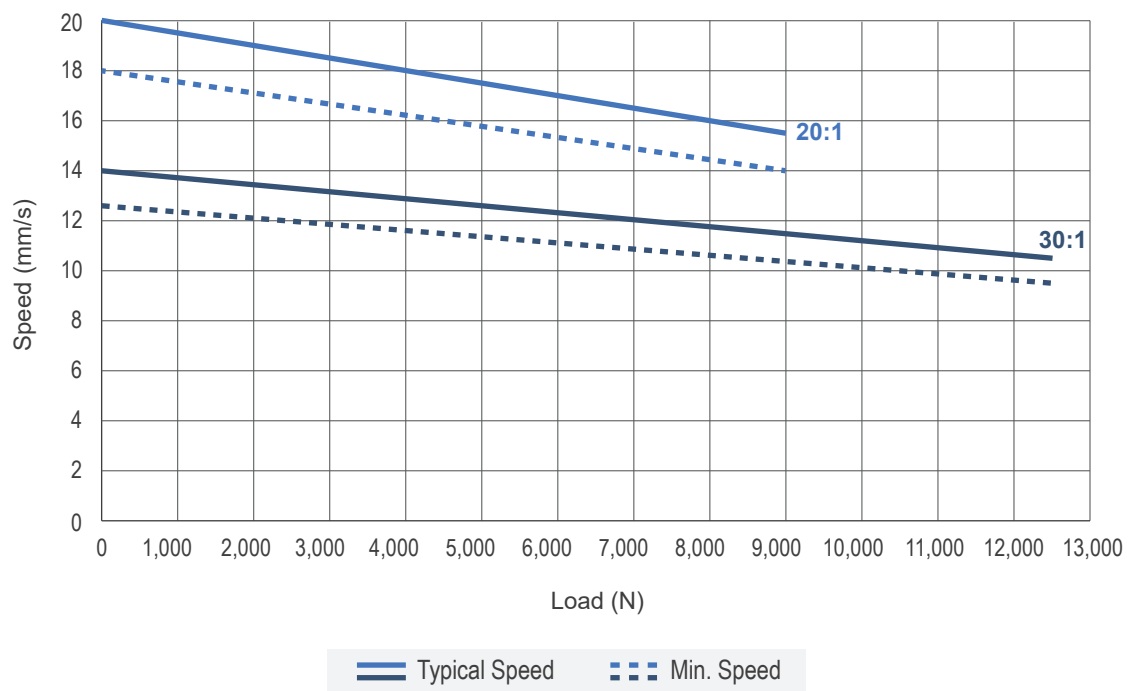
Options:

- Analog and absolute positioning feedback with Potentiometer (POT)

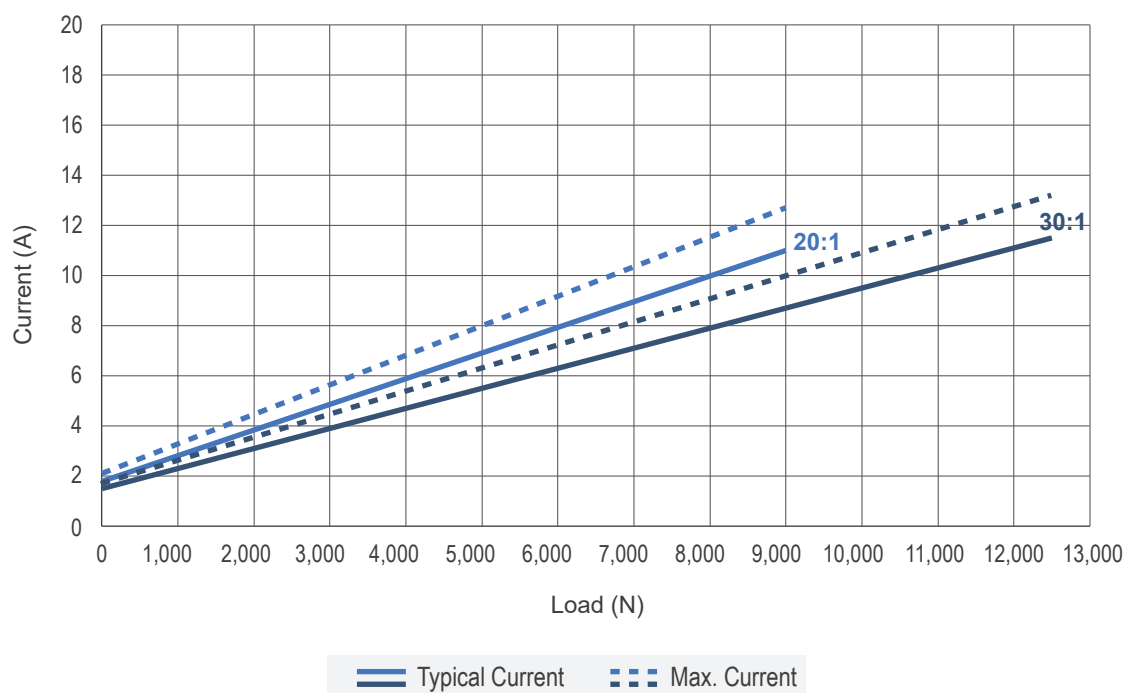
Performance Data

Model No.	Gear Ratio	Max. Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
ID10P-24- 20 B-XXX	20:1	9,000	20	15.5	1.8	11.0
ID10P-24- 30 B-XXX	30:1	12,500	14	10.5	1.5	11.5

Speed VS. Load with 24V DC motor



Current VS. Load with 24V DC motor



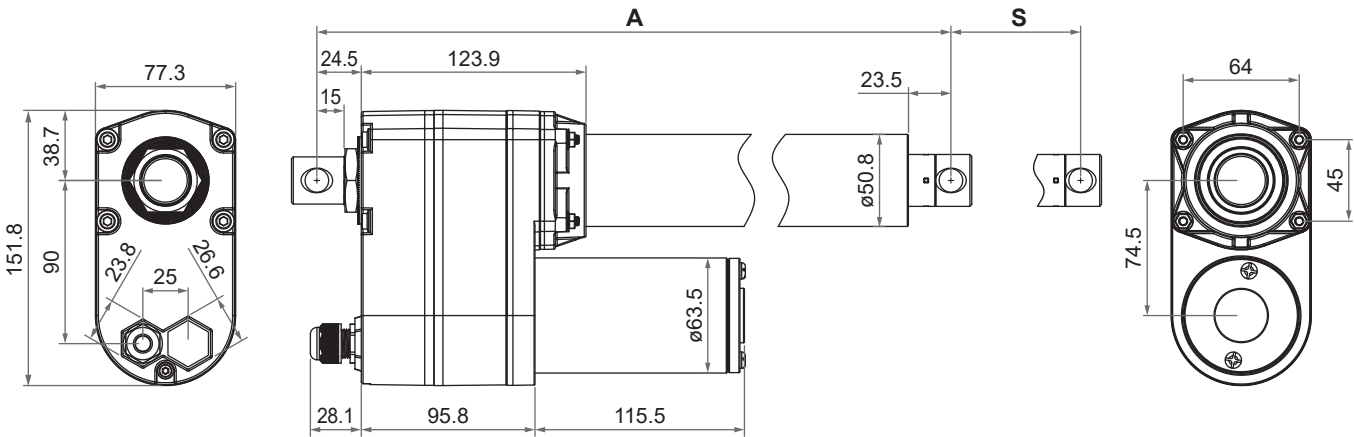
Dimensions

• Retracted length (A)

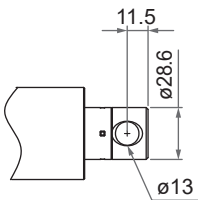
Stroke (S)	102 (4")	203 (8")	305 (12")
Retracted length (A)	398	501	601

(tolerance: ±5mm)

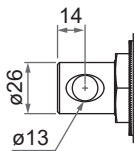
• Drawing



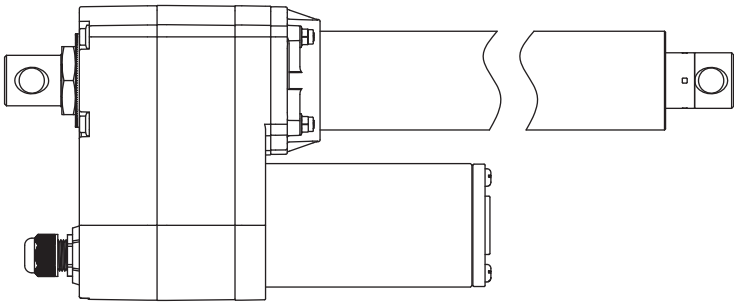
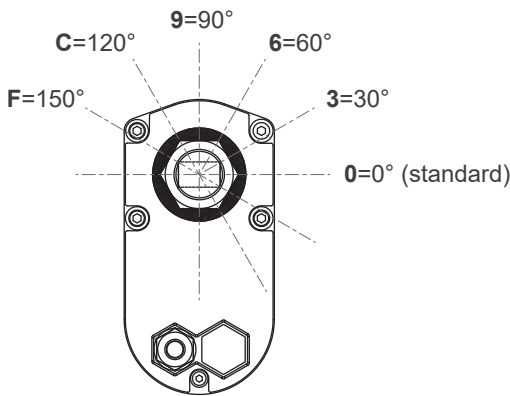
• Front connector



• Rear connector



• Pivot orientation of rear connector



Note: As an example in 0° orientation.

Unit: mm

Compatibility

Product	Model	ID10P spec
Controller	CI72	• Standard
Accessory	MB30 mounting bracket (Fig. 1)	• Standard, mounting hole $\varnothing 13\text{mm}$.



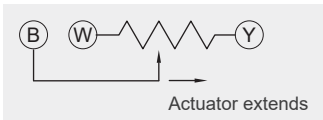
Fig. 1

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)

	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	Yellow	Vin	Input voltage 70V max.								
	Blue	POT output	<div><p>1. Potentiometer specification:</p><ul style="list-style-type: none">- 10K ohm, 10 turns.- Tolerance $\pm 5\%$<p>2. Output voltage: The voltage (resistance) between blue and white increases linearly from about 0 when the actuator extends, and decreases when it retracts.</p><div></div><p>3. There are different resolutions according to the stroke length (as table below)</p><table><tr><th>Stroke</th><th>Resistance (tolerance: $\pm 0.3\text{K}\Omega$)</th></tr><tr><td>102mm (4")</td><td>0.3 ~ 8.1K</td></tr><tr><td>203mm (8")</td><td>0.3 ~ 9.2K</td></tr><tr><td>305mm (12")</td><td>0.3 ~ 8.8K</td></tr></table></div>	Stroke	Resistance (tolerance: $\pm 0.3\text{K}\Omega$)	102mm (4")	0.3 ~ 8.1K	203mm (8")	0.3 ~ 9.2K	305mm (12")	0.3 ~ 8.8K
	Stroke	Resistance (tolerance: $\pm 0.3\text{K}\Omega$)									
102mm (4")	0.3 ~ 8.1K										
203mm (8")	0.3 ~ 9.2K										
305mm (12")	0.3 ~ 8.8K										
	White	GND									

Ordering Key

ID10P - 24 - 30 B - 102 - 0 P 0 0 0 0	
Input voltage	24: 24V DC
Gear ratio	20: 20:1 (9,000N) 30: 30:1 (12,500N)
Spindle type	B: Ball Screw
Stroke	102: 102mm (4") 203: 203mm (8") 305: 305mm (12")
Reserved	0
Positioning feedback	0: None P: Potentiometer (POT)
Reserved	0
Pivot orientation of rear connector (Refer to Page 3)	0: 0° (standard) 3: 30° 6: 60° 9: 90° C: 120° F: 150°
Reserved	0
Cable length	0: 250mm straight 1: 500mm straight 3: 1000mm straight 5: 1500mm straight

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