

Actuator

GD70

GD70 is a strong and powerful actuator up to 7000N thrust, designed for use in furniture, such as recliner or lift chair. There are many types of control boxes compatible with GD70 which are available for customers to choose.



Features and Options

Main applications: Furniture, Home care

Standard features:

- Input voltage: 24V DC
- Max. load: 7000N (Push) / 5000N (Pull)
- Max. speed at no load: 7.7mm/sec (Typical value)
- Speed at full load: 2.9mm/sec (Typical value @7000N loaded)
- Stroke: 50 ~ 300mm
- Noise level: ≤ 50 dB
- IP Level: IP43
- Preset limit switches
- Duty cycle: 10%, max. 2 min. continuous operation in 20 min.
- Operating ambient temperature: -20°C ~ +60°C
- Certified: CE Marking, EMC Directive 2014/30/EU,
UL 962 Standard for Household and Commercial Furnishings.

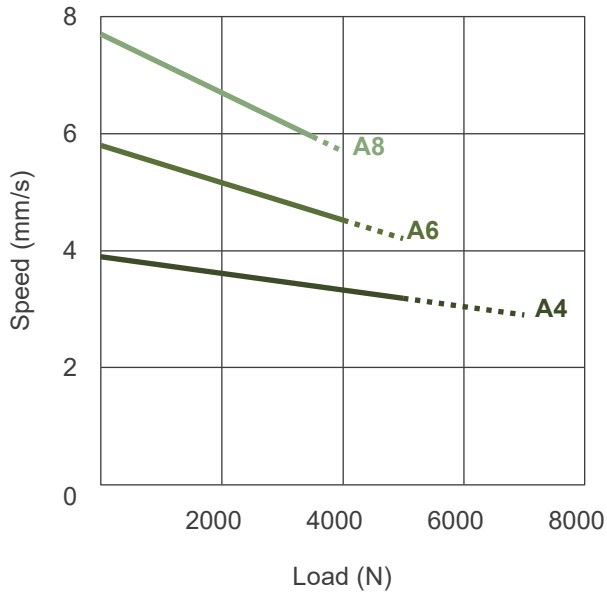
Options:

- Positioning signal feedback with Hall effect sensor x 1
- Positioning signal feedback with Hall effect sensor x 2
- Mechanical push only extension tube
- Mechanical brake

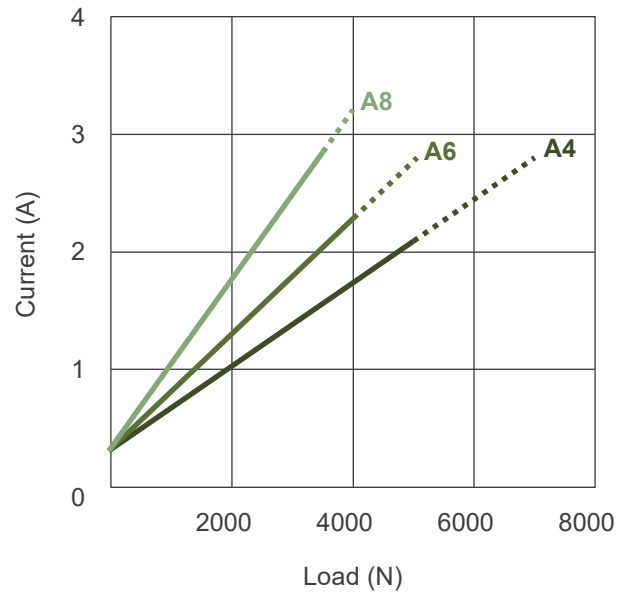
Performance Data

Model No.	Max. Push (N)	Max. Pull (N)	*Self-locking ability (N)	**Typical speed (mm/s)		**Typical current (A) @ 24V	
				No load	Full load	No load	Full load
GD70-24-A4-XXX-CXX	7000	5000	5000	3.9	2.9	0.3	2.8
GD70-24-A6-XXX-CXX	5000	4000	2500	5.8	4.2	0.3	2.8
GD70-24-A8-XXX-CXX	4000	3500	2000	7.7	5.7	0.3	3.2

Speed vs. Load



Current vs. Load



Push / Pull Load — Push Load - - -

Remarks:

* The self-locking ability is performed by short circuit the motor terminals when the actuator is powered off. All MOTECK compatible control boxes are designed with this feature. Mechanical brake in push direction is available upon request, to further enhance the self-locking ability to maximum load.

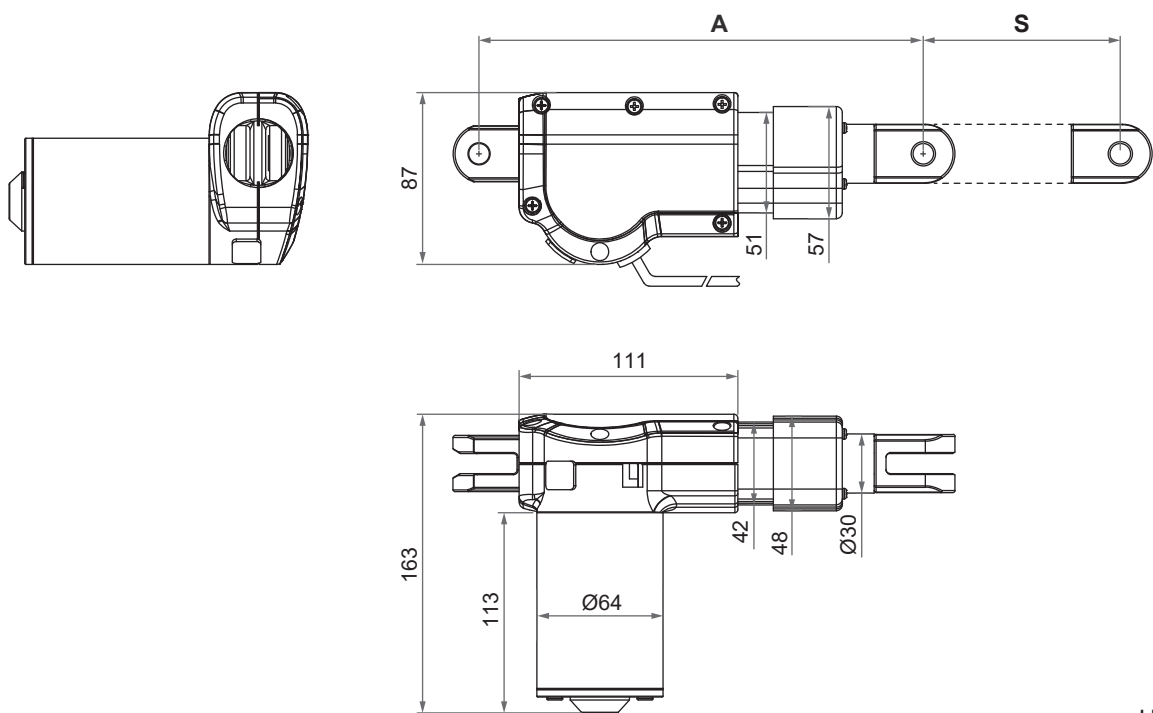
** The typical speed or typical current means the average value neither upper limit nor lower limit. The performance curves are made with typical values.

Dimensions

- Available stroke (S) range = 50 ~ 300mm (±3mm)
- Extended length (B) = Retracted length (A) + Stroke (S)
- Retracted length (A)

	Front connector code	Option	
		Standard	Push only
Retracted length (A)	3	$A \geq S + 150\text{mm}$ (±3mm)	Add 10mm to retracted length (A)
	4	$A \geq S + 160\text{mm}$ (±3mm)	
	6	$A \geq S + 188\text{mm}$ (±3mm)	

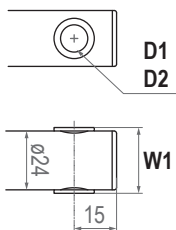
• Drawing



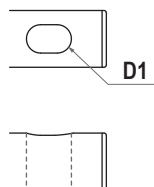
Unit: mm

• Front connector

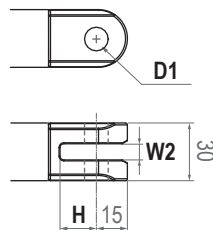
3: Drilled hole



4: Oval hole



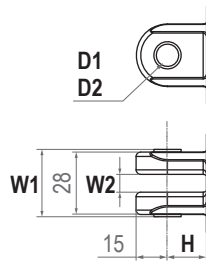
6: Enhanced plastic



Front connector code	Diameter of pivot without bushing (D1)	Diameter of pivot with bushing (D2)	Width with bushing (W1)	Slot width (W2)	Slot depth (H)
3	Ø8, Ø10, Ø12, Ø14	Ø8, Ø10	32	N/A	N/A
4	Ø8x10	N/A	N/A	N/A	N/A
6	Ø10	N/A	N/A	10	26

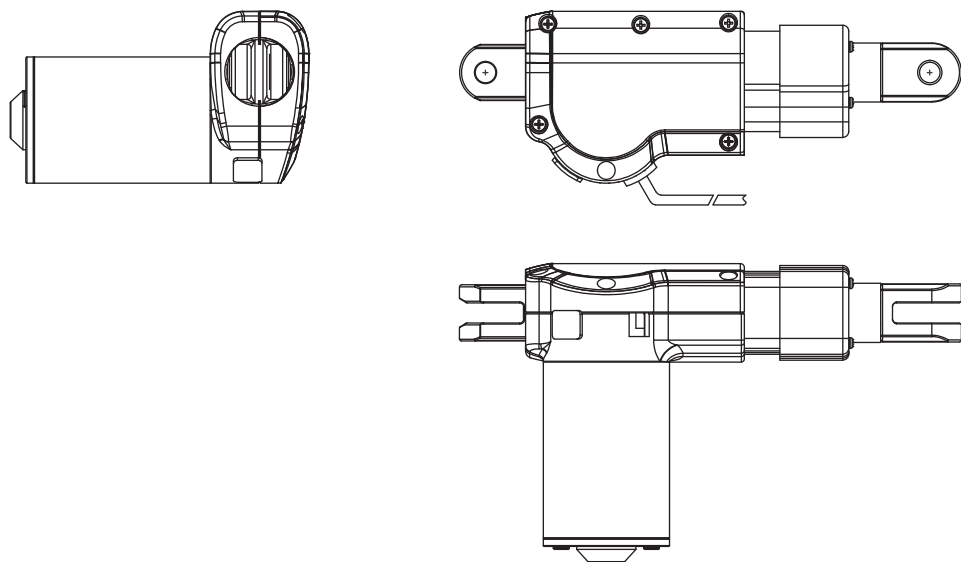
• **Rear connector**

2: Zinc alloy clevis



Rear connector code	Diameter of pivot without bushing (D1)	Diameter of pivot with bushing (D2)	Width with bushing (W1)	Slot width (W2)	Slot depth (H)
2	Ø10, Ø12	Ø8, Ø10	30	8	17

• **Pivot orientation of rear connectors**



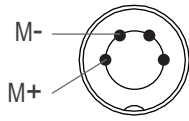
Note: As an example in 0° orientation for rear connector.

Compatibility

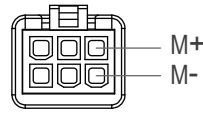
Product	Model	GD70 spec
Control box	T-control, CS1, CS2, CB3T, CB4M, CBT2	<ul style="list-style-type: none"> • Without Hall effect sensor • With 4-pin Motek F-type DIN plug
	CF11H, CF12H	<ul style="list-style-type: none"> • Without positioning sensor • With 6-pin Motek L3-type minifit plug
	CB3T-SY, CB4M-S, CB4M-B	<ul style="list-style-type: none"> • With dual Hall effect sensors • With 6-pin Motek F-type DIN plug
	CF12S, CF15	<ul style="list-style-type: none"> • With dual Hall effect sensors • With 6-pin Motek L3-type minifit plug

Cable Plug

- Without positioning feedback



4-pin Moteck F-type DIN plug

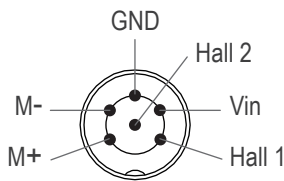


6-pin Moteck L3-type minifit plug

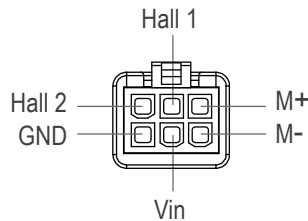


F-type

- Positioning feedback with dual Hall effect sensors



6-pin Moteck F-type DIN plug



6-pin Moteck L3-type minifit plug



L3-type

Note: Pin definition

	Definition	Comments	
Power	M+	Connect M+ to "Vdc +" & M- to "Vdc -" of DC power to extend the actuator. Switch the polarity of DC input to retract it.	
	M-		
Signal	GND		
	Vin	Voltage input range: 3.5 ~ 20V	
	Hall 1	Hall effect sensor resolution:	
		Model No.	Resolution (Pulses/mm)
		GD70-24-A4-XXX-CXX-HS	10.00
Hall 2	GD70-24-A6-XXX-CXX-HS	6.67	
	GD70-24-A8-XXX-CXX-HS	5.00	
Output voltage of signal (DATA) = Vin			
Hall signal data:			

Ordering Key

GD70 - 24 - A4 - 388 - 588 - C 3 2 - HS - PO-BK	
Input voltage	24: 24V DC
Motor and Spindle type	A4: 2500rpm / 4mm pitch A6: 2500rpm / 6mm pitch A8: 2500rpm / 8mm pitch
Retracted length <i>(Refer to page 3)</i>	XXX
Extended length <i>(Refer to Page 3)</i>	XXX
Front connector <i>(Refer to Page 3)</i>	3: Drilled hole 4: Oval hole 6: Enhanced plastic
Rear connector <i>(Refer to Page 4)</i>	2: Zinc alloy clevis
Positioning feedback	Blank: None HS: Hall effect sensor x 1 HS2: Hall effect sensor x 2
Option <i>(Multiple choice is allowed)</i>	Blank: None PO: Mechanical push only extension tube BK: Mechanical brake

Certifications

The GD70 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+A1:2001+A2:2008 Catagory I

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