

Actuator

MD51

MD51 is a compact and powerful actuator up to 3500N thrust, which is designed for the use in medical care application, such as patient lift nursing chair and wheel chair.



Features and Option

Main applications: Medical Care

Standard features:

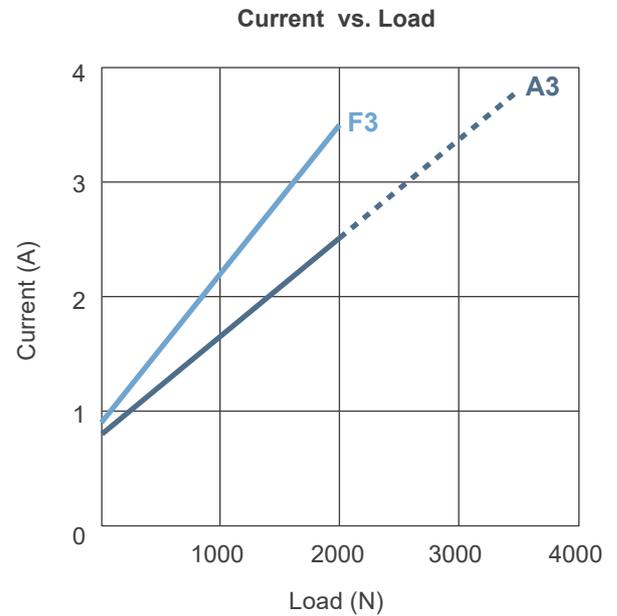
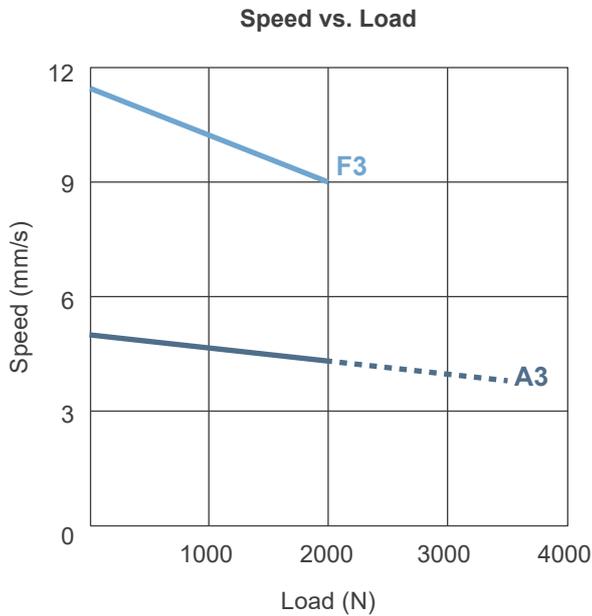
- Input voltage: 24V DC
- Max. load: 3500N (push) / 2000N (pull)
- Typical speed at no load: 11.4 mm/sec
- Typical speed at full load: 3.8 mm/sec @ 3500N
- Stroke: 100 ~ 600 mm
- Noise level: ≤ 65 dB
- IP Protection level: IP66
- Color: Black
- Present limit switches
- Duty cycle: 10%, max. 2 min. continuous operation in 20 min.
- Ambient operation temperature: -20°C ~ +60°C
- Certified: CE Marking, EN 60601-1, IEC 60601-1, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-8 (F3 only)

Option:

- Mechanical push only extension tube

Performance Data

Model No.	Push Max. (N)	Pull Max. (N)	*Typical speed (mm/s)		*Typical current (A) @ 24V	
			No load	Full load	No load	Full load
MD51-24- A3 -XXX.XXX-CXX	3500	2000	5.0	3.8	0.8	3.8
MD51-24- F3 -XXX.XXX-CXX	2000	2000	11.4	9.0	0.9	3.5



Push / Pull Load — Push Load - - -

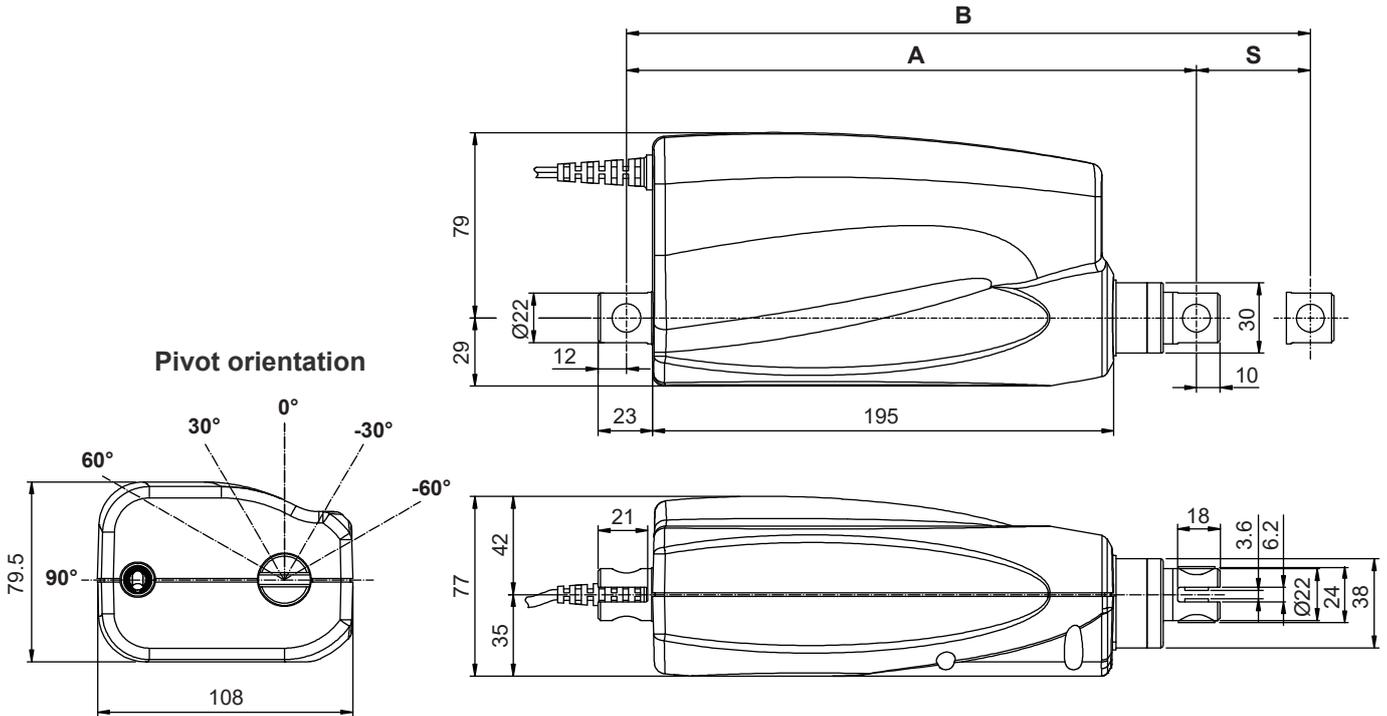
Remarks:

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

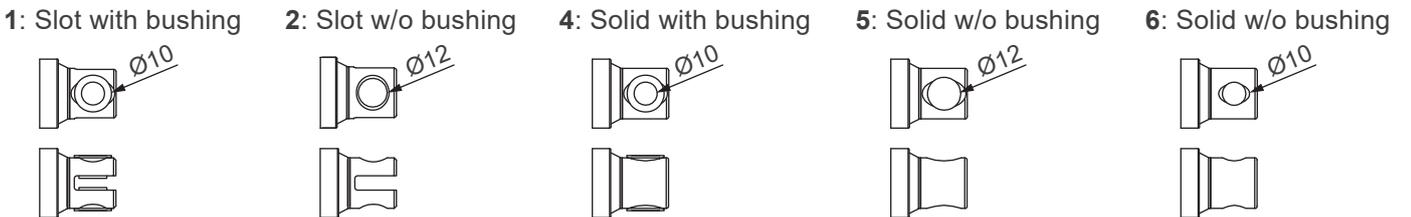
Dimensions

- Available stroke (S) range = 100 ~ 600 mm
- Extended length (B) = (S) + (A)

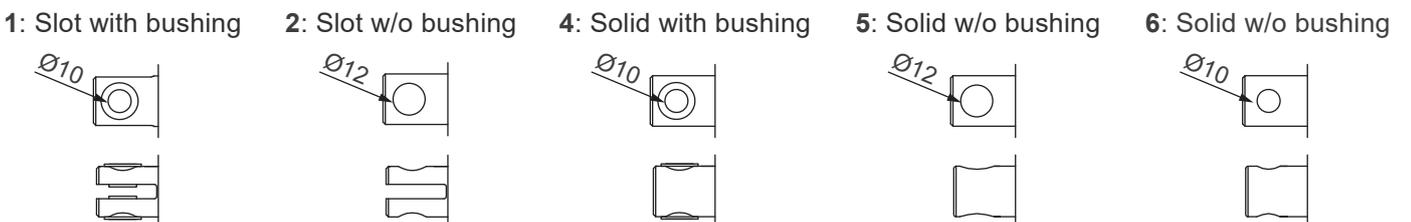
Stroke (S)	Retracted length (A)
≤ 300 mm	S+141 mm (±3mm)
> 300 mm	S+160 mm (±3mm)



Front Connector



Rear Connector

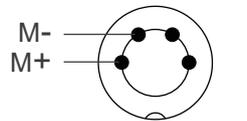


Compatibility

Product	Model	Compatible requirement
Control box	CB3T	- With Moteck F-type 4-pin DIN plug
	CM42	- With Moteck J1-type ø6.35 phone jack

Plug type

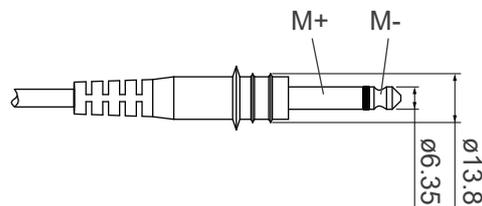
- Moteck F-type DIN plug



4-pin DIN plug



- Moteck J1-type phone jack



ø6.35 phone jack

Note:

Connect Pin (M+) to “+” & Pin (M-) to “-” of DC power, the actuator will extend.

Cable with Flying Leads

	Wire color	Definition	Comments
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		

Ordering Key

MD51 - 24 - A3 - 341 - 541 - C 1 1 - P 1 1

Input voltage	24: 24V DC		
Motor and Spindle type	A3: Standard version F3: Fast version (Refer to Performance Data)		
Retracted length	XXX (Refer to Dimensions)		
Extended length	XXX (Refer to Dimensions)		
Front connector	1: Slot with bushing, Ø10 mm 2: Slot w/o bushing, Ø12 mm 4: Solid with bushing, Ø10 mm 5: Solid w/o bushing, Ø12 mm 6: Solid w/o bushing, Ø10 mm (Refer to Dimensions)		
Rear connector	1: Slot with bushing, Ø10 mm 2: Slot w/o bushing, Ø12 mm 4: Solid with bushing, Ø10 mm 5: Solid w/o bushing, Ø12 mm 6: Solid w/o bushing, Ø10 mm (Refer to Dimensions)		
Option	0: None P: Push only		
Pivot orientation of rear connector	1: 0° (standard) 4: 90°	2: 30° 5: -30°	3: 60° 6: -60°
Cable length	1: 300 mm straight 2: 1000 mm straight		

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