

Actuator

MD7



Features

- ◆ MD7 is a quiet and powerful actuator designed for medical and homecare application. Our MD7C and CB2P control boxes, which are designed to be perfectly attached and integrated to MD7, are available for customers to choose.
- ◆ Main applications : Medical and homecare
- ◆ Input voltage : 24V DC / 12V DC
- ◆ Max. load : 6000N (push) / 4000N (pull)
- ◆ Max. current : 3A @ 24V DC, 6A @ 12V DC
- ◆ Max. speed at no load : 16.6mm/sec
- ◆ Max. speed at full load : 2.9mm/sec @ 6000N
- ◆ Stroke : 50 ~ 300 mm
- ◆ Duty cycle : 10% or 2 min continuous operation in 20 min.
- ◆ IP Protection level : IP54
- ◆ Color : RAL 7035
- ◆ Certified : EN60601-1-2
- ◆ Noise level : \leq 50dB
- ◆ Preset limit switches

Options

- ◆ Positioning signal feedback with Hall effect sensor x 1
- ◆ Positioning signal feedback with Hall effect sensor x 2
- ◆ Push only
- ◆ Safety nut
- ◆ Quick Release (must go with option Push Only and model code A8 or F8)
- ◆ Turn 90° Pivot orientation of rear connector

Compatibility

1. Control box

MD6C, MD7C, CB2P, CB4P

(MD7C & CB2P can be easily fixed onto MD7 actuator)



MD7 & MD7C



MD7 & CB2P

2. Handset

HF, H3F, HT, FS1, FS2

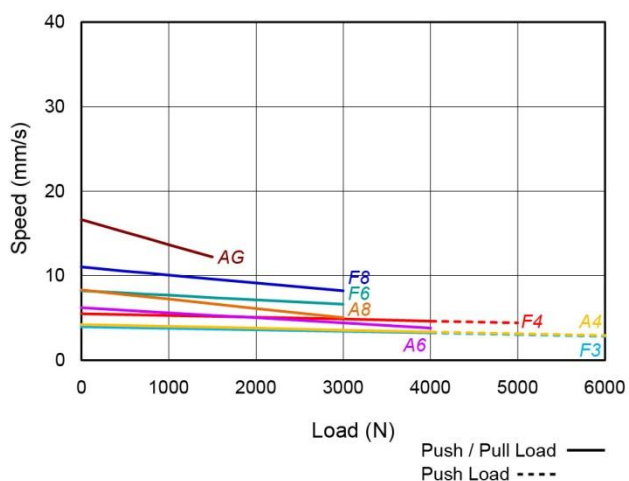
3. Accessory

None

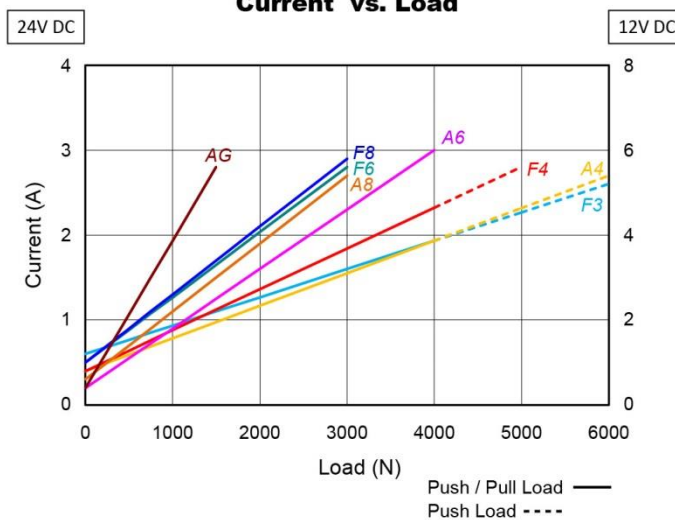
Performance Data

Model No.	Push Max. (N)	Pull Max. (N)	Speed (mm/s)		Current (A)			
			No load	Full load	No load		Full load	
					12V	24V	12V	24V
MD7-XX-F3- XXX.XXX	6000	4000	4.1	2.8	1.2	0.6	5.2	2.6
MD7-XX-A4- XXX.XXX	6000	4000	4.2	2.9	0.8	0.4	5.4	2.7
MD7-XX-F4- XXX.XXX	5000	4000	5.5	4.4	0.8	0.4	5.6	2.8
MD7-XX-A6- XXX.XXX	4000	4000	6.2	3.8	0.4	0.2	6.0	3.0
MD7-XX-F6- XXX.XXX	3000	3000	8.2	6.6	1.0	0.5	5.6	2.8
MD7-XX-A8- XXX.XXX	3000	3000	8.3	5.0	0.6	0.3	5.4	2.7
MD7-XX-F8- XXX.XXX	3000	3000	11.0	8.2	1.0	0.5	5.8	2.9
MD7-XX-AG- XXX.XXX	1500	1500	16.6	12.2	0.4	0.2	5.6	2.8

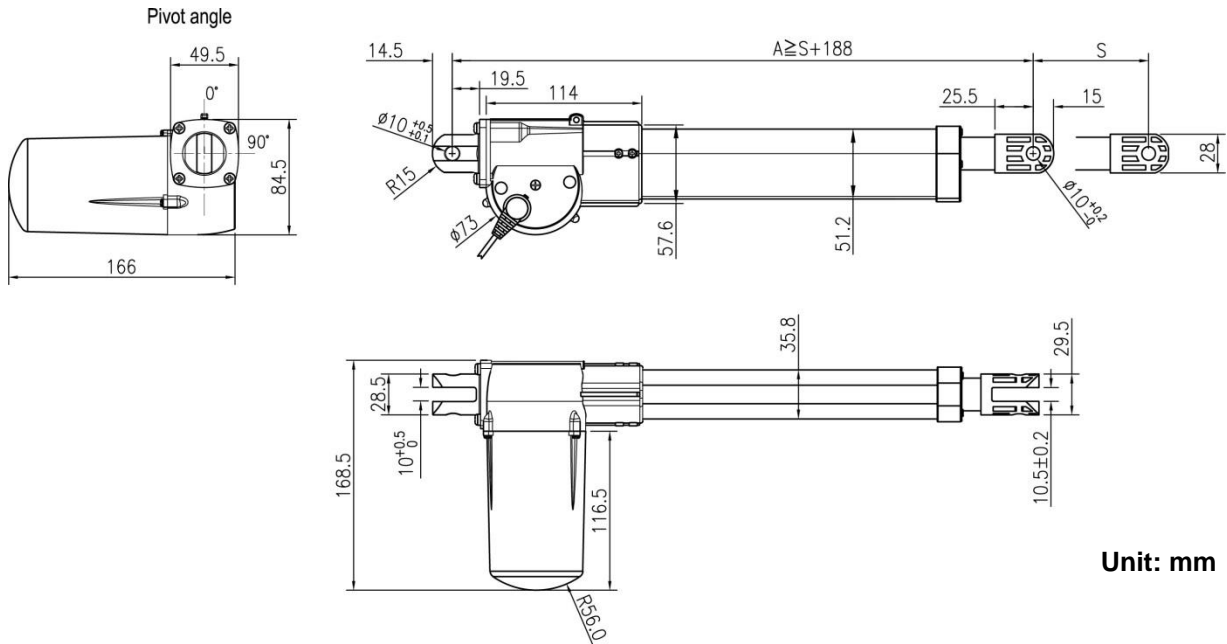
Speed vs. Load



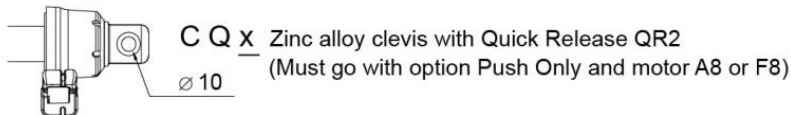
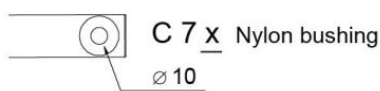
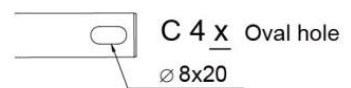
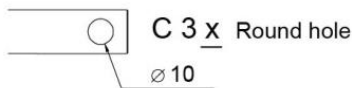
Current vs. Load



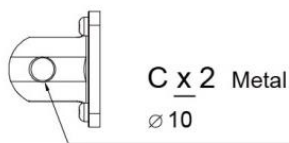
Dimensions



◆ Front Connector



◆ Rear Connector



◆ Available stroke (S) range = 50~300mm

◆ Retracted length (A)

Front connector	Standard	Description
C1x, C5x, C8x	$A \geq \text{Stroke} + 188\text{mm}$	
C3x, C4x, C7x	$A \geq \text{Stroke} + 160\text{mm}$	
CQx	$A \geq \text{Stroke} + 235\text{mm}$	With QR2 quick release

◆ Extended length = S + A

Cable Plug

◆ DIN plug with Moteck V type or H type shape



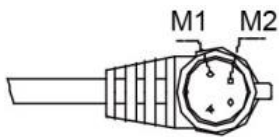
V type



H type

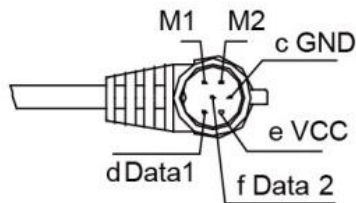
Pin Assignment

No sensor feedback



M1(+) & M2(-): Extends

1x or 2x Hall sensors for positioning



M1(+) & M2(-): Extends

Pin 'Data2' is defined for HS4

◆ Phone jack (Φ6.35) with Moteck J1 type or J2 type shape



J1 type (Φ13.8)



J2 type (Φ16.7)

Ordering Key

MD7-□□-□□-□□□.□□□-C□□-□□□□□□□□

Input Voltage

24 : 24V DC
12 : 12V DC

Motor and Spindle Code

F3, A4, F4, A6, F6, A8, F8, AG
(Refer to Performance Data)

Retracted Length

(Refer to paragraph Dimensions)

Extended Length

(Refer to paragraph Dimensions)

Front Connector

1 : Plastic
3 : Round hole
4 : Oval hole
5 : Metal
7 : Nylon bushing
8 : Metal
Q : Zinc alloy clevis with QR2 Quick release
(Must go with option Push Only and code A8 or F8)

Rear Connector

2 : Metal

Options

HS1 : Hall effect sensor x 1
HS2 : Hall effect sensor x 2
PO : Push only
SN : Safety nut

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