

TA12

series



Product Segments

- **Care Motion**

Patient lifts need to focus on safety, reliability and effortless operation. This is why we create our actuator-TA12 which will fulfill what nurses and patients need while trying to move a patient from the bed to a wheelchair or from the wheelchair to the toilet. Additionally, TA12 is also suitable for bariatric beds, which will meet the needs of the caregivers and patients themselves. Especially, there are several challenges that bariatric beds could face, such as turning and repositioning to prevent pressure sores, transferring in and out of a bed or chair, assisting with bathing and toileting, and supporting a limb while performing patient handling tasks...etc.

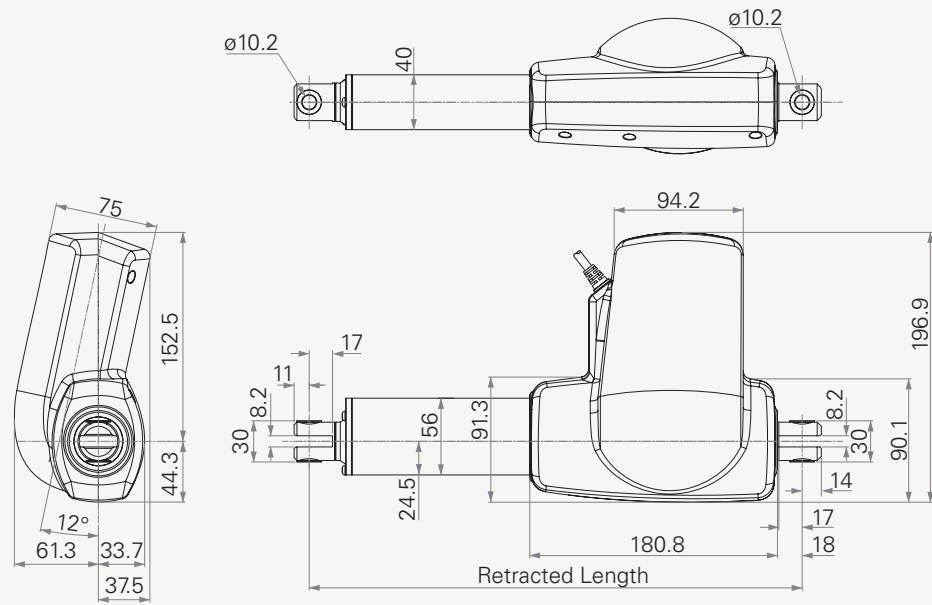
One of its significant features is TA12 has manual release function that can turn the inner tube down by hand, in case of emergency, or if electrical power is not available.

General Features

Voltage of moto	12V DC, 24V DC , or 36V DC
Maximum load	12,000N in push
Maximum load	6,000N in pull
Maximum speed	57.0mm/s
Minimum installation dimension	stroke+210mm
Color	black or grey
Protection class	IP54 or IP66
Certificate	UL/EN60601-1
Option	safety nut, Hall/Reed/POT sensor(s), manual release

Drawing

Standard Dimension



Load and Speed

CODE	Rated Load		Self Locking N (PUSH)	Typical Current at Rated Load (A)	Typical Speed	
	PUSH N	PULL N			No Load (32V DC) mm/s	Rated Load (24V DC) mm/s
Motor Speed (4000RPM)						
A	10000	6000	10000	13.0	14.0	6.5
B	12000	6000	12000	8.5	7.0	4.0
C	7000	6000	7000	8.5	14.0	8.0
D	4000	4000	4000	8.5	28.0	16.0
E	3000	3000	3000	8.5	43.0	24.0
F	2000	2000	2000	8.5	57.0	32.0

Stroke with POT Sensor

CODE	Max. Stroke	Lead of The Thread	Starts of Spindle	Resolution Ω /mm
A	335	3.9	1	27.97
B	335	3.9	1	27.97
C	685	4	2	13.64
D	685	4	2	13.64
E	1030	4	3	9.09
F	1500	4	4	6.82

Note

- 1 The left diagram shows the speed and current figures under pushing condition.
- 2 Speed would be the same if with 12V motor, but with double current consumption.
- 3 When customer chose load & speed "code #A", they cannot choose voltage option "#1_12V"

Terms of Use

The user is responsible for determining the suitability of TiMOTION products for a specific application.

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Additional retracted length

TA Series	Safety Stroke Limit (mm)	Additional Stroke (mm)	Additional Invalid Length (mm)
TA1	300	0<additional stroke≤50	5
TA1 (6000N)	200	0<additional stroke≤50	5
TA1 (8000N) up	150	0<additional stroke≤50	5
TA2	300	0<additional stroke≤50	10
TA2P	300	0<additional stroke≤50	10
TA4	200	0<additional stroke≤50	5
TA6	300	0<additional stroke≤50	5
TA6 (6000N)	200	0<additional stroke≤50	5
TA7	300	0<additional stroke≤50	5
TA7 (6000N)	200	0<additional stroke≤50	5
TA7 (8000N) up	150	0<additional stroke≤50	5
TA9	200	0<additional stroke≤50	5
TA10	300	0<additional stroke≤50	5
TA10 (6000N)	200	0<additional stroke≤50	5
TA12	300	0<additional stroke≤50	10
TA12 (7000N)	300	0<additional stroke≤50	10
TA12 (12000N)	300	0<additional stroke≤50	10
TA13	300	0<additional stroke≤50	10
TA16	200	0<additional stroke≤50	5

Note

- 1 Above stroke recommendation is based on safety stroke limit, for each additional 50mm stroke, it needs to add 5mm for the retracted length.

For example

- 1 If TA9's stroke is 201mm, the retracted length = 201mm+invalid length+5mm.
 2 If TA9's stroke is 300mm, the retracted length = 300mm+invalid length+10mm.

TA12 Ordering Key

TA12

Version: 20130502-F

<input type="checkbox"/>	Voltage	1 = 12V	2 = 24V	3 = 36V
<input type="checkbox"/>	Load and Speed	See appendix		
<input type="checkbox"/>	Stroke	Note1 : if with POT sensor, please refer to appendix for maximum stroke Note2 : stroke length must be multiple of 25mm		
<input type="checkbox"/>	Retracted Length	Stroke + 220mm (for Load & Speed code B)	Stroke + 210mm (for Load & Speed code C,D,E,F)	
<input type="checkbox"/>		Note 1 : before selecting retracted length, please refer to the additional retracted length char		
<input type="checkbox"/>		Note 2 : if with manual release, it needs to add 78mm retracted length		
<input type="checkbox"/>		Note 3 : if with standard push-only, it needs to add 25mm retracted length		
<input type="checkbox"/>	Rear Attachment	1 = U clevis, slot 8.2 mm, hole 10.2mm 2 = U clevis, slot 8.2 mm, hole 12.2mm 3 = U clevis, slot 10.2 mm, hole 10.2mm	4 = U clevis, slot 10.2 mm, hole 12.2mm A = Customized	
<input type="checkbox"/>	Front Attachment	1 = U clevis, slot 8.2 mm, hole 10.2mm 2 = U clevis, slot 8.2 mm, hole 12.2mm 3 = U clevis, slot 10.2 mm, hole 10.2mm	4 = U clevis, slot 10.2 mm, hole 12.2mm A = Customized	
<input type="checkbox"/>	Direction of Rear Attachment (Counterclockwise)	1 = 0°	3 = 90°	
<input type="checkbox"/>	Color	1 = Black	2 = Grey (Pantone 428C)	
<input type="checkbox"/>	IP Protection	1 = Without	2 = IP54	3 = IP66
<input type="checkbox"/>	Manual Release	0 = Without	1 = Manual drive type	2 = Cable pull type
<input type="checkbox"/>	Special Functions for Spindle Sub-Assembly (Only for PUSH Application)	0 = Without (standard) 1 = With Safety nut	2 = Standard push only 3 = Safety nut and standard push only	
<input type="checkbox"/>	Functions for Limit Switches	1 = Two switches at the retracted/extended positions to cut current		
<input type="checkbox"/>	Output Signals	0 = Without 1 = One Hall sensor	2 = Two Hall sensors 3 = Reed sensor	4 = POT
<input type="checkbox"/>	Plug	1 = TiMOTION's standard 6pin plug	2 = Tinned leads	A = Customized
<input type="checkbox"/>	Cable Length	1 = Straight, 500mm 2 = Straight, 750mm 3 = Straight, 1000mm	4 = Straight, 1250mm 5 = Straight, 1500mm 6 = Straight, 2000mm	7 = Coiled, 200mm 8 = Coiled, 400mm A = Customized