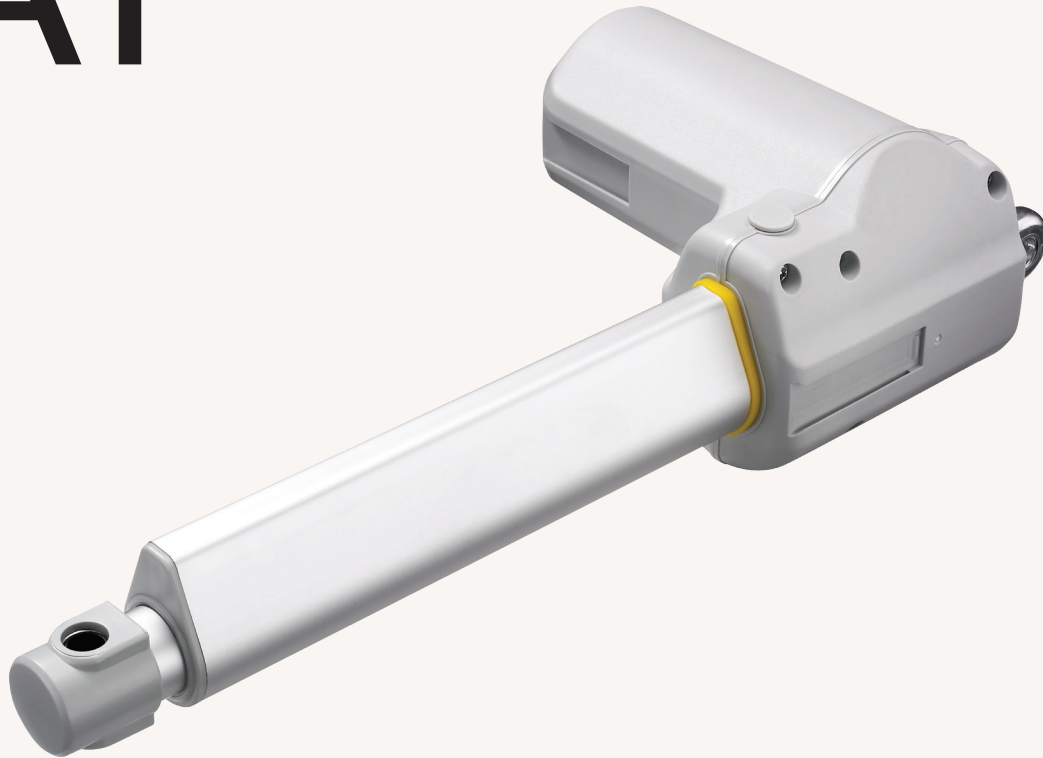


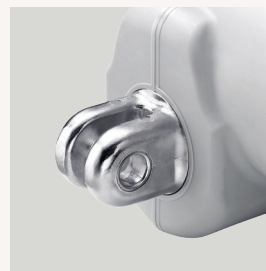
# TA1

## series



### Product Segments

- **Comfort Motion**
- **Care Motion**
- **Auto Motion**
- **Ergo Motion**



TA1 is one of our classic products, which covers our four product segments, including care motion, comfort motion, auto motion, and ergo motion.

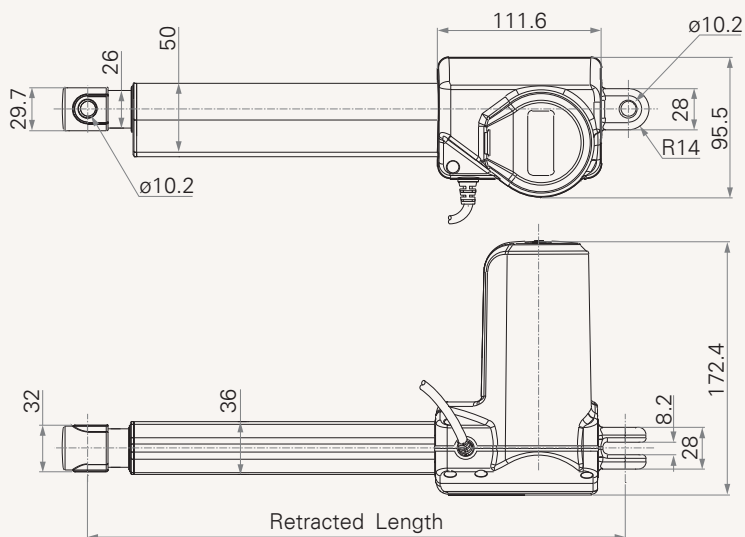
Besides, TA1 is also complied with certain significant medical standards, such as IEC60601-1, RoHS, and UL/EN60601-1 certificates.

### General Features

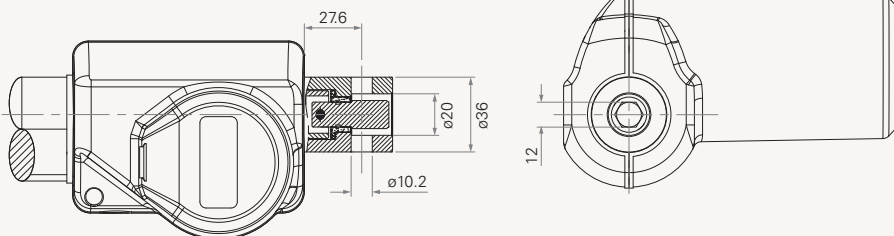
Voltage of motor	12V DC, 24V DC, or 36V DC
Maximum load	10,000N in push
Maximum load	4,000N in pull
Maximum speed	38.0mm/s
Minimum installation dimension	stroke+163mm
Color	black or grey
Protection class	IP54, IP66, IP66W, or without housing
Certificate	IEC60601-1, ES60601-1, and RoHS
Option	freewheeling push only, safety nut, quick release, Hall/Reed sensor(s)

**Drawing**

Standard Dimension



Dimension with Manual Operation



**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
<b>Motor Speed (2600RPM)</b>						
C	5000	4000	2500	3.5	7.6	3.9
D	6000	4000	4000	3.5	5.5	2.9
F	2500	2500	1000	3.2	15.9	8.3
G	2000	2000	1000	3.2	19.8	11.1
H	1000	1000	500	2.1	29.3	19.1
J	3500	3500	3500	3.6	11.1	5.5
K	8000	4000	6000	4.0	5.0	2.5
<b>Motor Speed (3400RPM)</b>						
L	6000	4000	4000	4.2	7.0	3.9
N	2500	2500	1000	4.1	20.2	11.1
O	2000	2000	1000	4.0	25.3	14.9
P	1000	1000	500	3.0	38.0	23.2
Q	3500	3500	3500	4.6	14.3	7.6
R	8000	4000	6000	5.0	6.7	3.3
T	5000	4000	2500	4.2	10.1	5.1
<b>Motor Speed (3800RPM)</b>						
X	6000	4000	4000	4.4	8.3	5.2
Y	8000	4000	6000	5.3	7.7	4.4
B	10000	4000	10000	5.3	5.5	2.9

**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 comparing 24V motor.
- 3 If choosing #B, it must use iron inner tube and front attachment #5, and add additional 5mm retracted length.
- 4 The self locking force above need to work with TiMOTION control system.

**Terms of Use**

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

Due to continuous development in order to improve our products, TiMOTION products are subject to frequent modifications and changes without prior notice.

TiMOTION reserves the right to discontinue the sale of any products displayed on its website or listed in its catalogue or other written materials drawn up by TiMOTION.

**Additional retracted length**

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

TA1

Version: 20130719-Q

<input type="checkbox"/>	<b>Voltage</b>	1 = 12V	2 = 24V	3 = 36V	
		Note : if load and speed options = #R, #Y, or #B, voltage cannot choose option #1			
<input type="checkbox"/>	<b>Load and Speed</b>	See appendix			
<input type="checkbox"/>	<b>Stroke</b>				
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>	<b>Retracted Length</b>	Stroke+163mm (for front attachment 1,2,5,6)	Stroke+187mm (for quick release, front attachment 1, 2, 5, 6)		
<input type="checkbox"/>		Stroke+180mm (for front attachment 3,4,B,C)	Stroke+204mm (for quick release, front attachment 3,4,B,C)		
<input type="checkbox"/>		Stroke+175mm (for front attachment 7, 8)	Stroke+199mm (for quick release, front attachment 7,8)		
		Note : before selecting retracted length, please refer to the additional retracted length chart			
<input type="checkbox"/>	<b>Rear Attachment</b>	0 = Plastic U clevis, slot 8.2mm, hole 10.2mm (recommended for push application under 400kg & pull under 250kg)	3 = Casting U clevis, slot 8.2 mm, hole 12.2mm		
		1 = Plastic U clevis, slot 8.2mm, hole 12.2mm (recommended for push application under 400kg & pull under 250kg)	4 = Casting U clevis, slot 10.2 mm, hole 10.2mm		
		2 = Casting U clevis, slot 8.2 mm, hole 10.2mm	5 = Casting U clevis, slot 10.2 mm, hole 12.2mm		
			H = Hand crank (the retracted length needs to add 8mm)		
<input type="checkbox"/>	<b>Front Attachment</b>	1 = Punched hole on the tube with plastic cover on, width 32mm, hole 10.2mm	7 = Short slot casting attachment, width 26mm, with slot 6.2mm, hole 10.2mm		
		2 = Punched hole on the tube with plastic cover on, width 32mm, hole 12.2mm	8 = Short slot casting attachment, width 26mm, with slot 6.2mm, hole 12.2mm		
		3 = Plastic attachment, width 30mm, with slot 8.2mm, hole 10.2mm (recommended for push application under 400kg & pull under 250kg)	B = Long casting attachment, width 30mm, with slot 8.2mm, hole 10.2mm		
		4 = Plastic attachment, width 30mm, with slot 8.2mm, hole 12.2mm (recommended for push application under 400kg & pull under 250kg)	C = Long casting attachment, width 30mm, with slot 8.2mm, hole 12.2mm		
		5 = Punched hole on the tube, width 26mm, hole 10.2mm	A = Customized		
		6 = Punched hole on the tube, width 26mm, hole 12.2mm			
<input type="checkbox"/>	<b>Direction of Rear Attachment (Counterclockwise)</b>	1 = 0°	2 = 45°	3 = 90°	4 = 135°
<input type="checkbox"/>	<b>Color</b>	1 = Black	2 = Grey (Pantone 428C)		
<input type="checkbox"/>	<b>IP Protection</b>	1 = Without	2 = IP54	3 = IP66	4 = Without housings
					5 = IP66W
<input type="checkbox"/>	<b>Quick Release</b>	0 = Without	1 = Cable (standard)	2 = Handle	
		Note : only compatible with load & speed options #C, #T			
<input type="checkbox"/>	<b>Special Functions for Spindle Sub-Assembly</b>	0 = Without (standard)	3 = Safety nut and standard push only		
		1 = Safety nut	4 = Freewheeling push only (retracted length needs to add 15mm)		
		2 = Standard push only	5 = Safety nut and freewheeling push only (retracted length needs to add 15mm)		
		Note 1 : when rated load ≥6000N, it can't choose #2			
		Note 2 : when rated load ≥8000N, it can't choose #0, #2			
<input type="checkbox"/>	<b>Functions for Limit Switches</b>	1 = Two switches at the retracted/extended positions to cut current	4 = Two switches at the retracted/extended positions and the third one in between to send signal		
		2 = Two switches at the retracted/extended positions to cut current with the third one in between to send signal	A = Customized		
		3 = Two switches at the retracted/extended positions to send signal			
<input type="checkbox"/>	<b>Output Signals</b>	0 = Without	1 = One Hall sensor	2 = Two Hall sensors	3 = Reed sensor
<input type="checkbox"/>	<b>Plug</b>	1 = TiMOTION's standard 6pin plug		2 = Tinned leads	A = Customized
<input type="checkbox"/>	<b>Cable Length</b>	0 = Straight, 100mm	2 = Straight, 750mm	4 = Straight, 1250mm	6 = Straight, 2000mm
		1 = Straight, 500mm	3 = Straight, 1000mm	5 = Straight, 1500mm	8 = Coiled, 400mm
					A = Customized