



## **Product Segments**

## Comfort Motion

TiMOTION's TA25 series electric linear actuator uses a linear slide to move a load, instead of an extension tube. This linear slide mechanism allows for a significantly shorter retracted length and makes the TA25 a great solution for various furniture applications. The TA25 is designed to function as a direct cut system, eliminating the need for a control box, offering a simple and economical solution. Available options are Hall sensors and a special L-shaped mounting bracket.

#### **General Features**

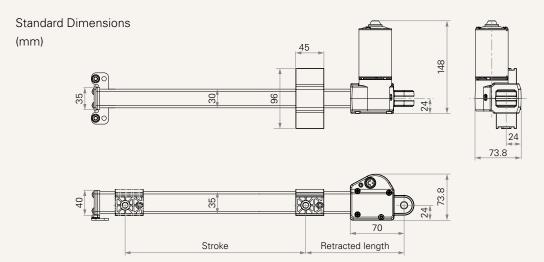
Max. load 1,000N (push / pull)

 $\begin{array}{lll} \text{Max. speed at max. load} & 29 \text{mm/s} \\ \text{Max. speed at no load} & 54 \text{mm/s} \\ \text{Retracted length} & \geq 99 \text{mm} \\ \text{Certificate} & \text{UL962} \\ \end{array}$ 

Output signals Hall sensor(s) Voltage 12 / 24V DC Operational temperature range  $+5^{\circ}C^{\sim}+45^{\circ}C$ 

1

### Drawing



#### **Load and Speed**

CODE	Load (N)		Self Locking	Typical Current (A)		Typical Speed (mm/s)	
	Push	Pull	Force (N)	No Load 32V DC	With Load 24V DC	No Load 32V DC	With Load 24V DC
Motor Speed (3800RPM, duty cycle 10%)							
В	1000	1000	100	1.3	4.5	54.0	29.0

#### Note

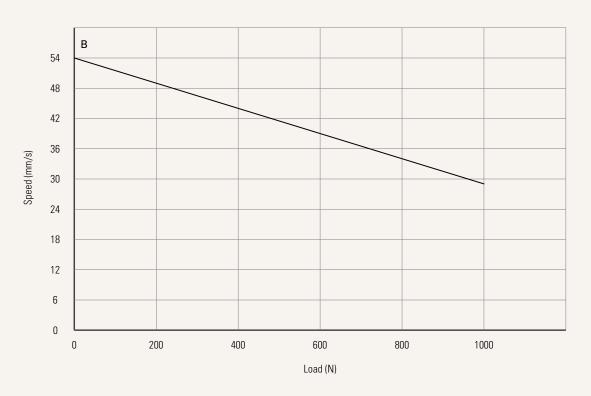
- 1 Please refer to the approved drawing for the final authentic value.
- 2 This self-locking force level is reached only when a short circuit is applied on the terminals of the motor. All the TiMOTION control boxes have this feature built-in.
- 3 Operational temperature range: -25°C~+65°C
- 4 The current & speed in table are tested with 24V DC motor. With a 12V DC motor, the current is approximately twice the current measured in 24V DC. With a 36V DC motor, the current is approximately two-thirds the current measured in 24V DC. With a 48V DC motor, the current is approximately half the current measured in 24V DC. Speed will be similar for all the voltages.
- 5 The current & speed in table are tested when the actuator is extending under push load.
- 6 The current & speed in table and diagram are tested with TiMOTION control boxes, and there will be around 10% tolerance depending on different models of the control box. (Under no load condition, the voltage is around 32V DC. At rated load, the voltage output will be around 24V DC)
- 7 The current & speed in table and diagram are tested with a stable 24V DC power supply.



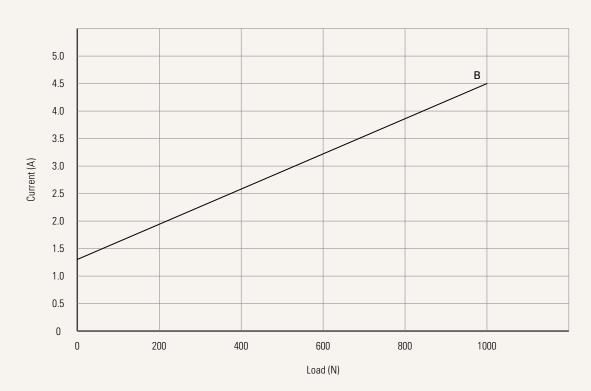
## Performance Data (24V DC Motor)

Motor Speed (3800RPM, duty cycle 10%)

Speed vs. Load



Current vs. Load





# TA25 Ordering Key



TA25

				Version: 20220712-E	
Voltage	1 = 12V	2 = 24V			
Load and Speed	See page 2				
Stroke (mm)	See page 5				
Retracted Length (mm)	122 = Bracket on the fro		099 = Bracket on the front & rear end #2		
Bracket See page 5	0 = Without	1 = Style A: Iron bracket	2 = Style B: Plastic brac	ket	
IP Rating	1 = Without				
Functions for Limit Switches See page 6	1 = Two switches at full retracted / extended positions to cut current 2 = Two switches at full retracted / extended positions to cut current + third one in between to send signal 3 = Two switches at full retracted / extended positions to send signal 4 = Two switches at full retracted / extended positions to send signal + third one in between to send signal				
Output Signals	0 = Without	2 = Hall sensors * 2			
Connector See page 6	1 = DIN 6P, 90°plug 2 = Tinned leads 3 = Small 01P, plug P = Molex 8P, 90°plug, without anti-clip		<ul> <li>K = 1 motor direct cut system</li> <li>J = 1 motor direct cut system, with anti-pull cover</li> <li>L = 1+1, 2 motors direct cut system</li> <li>S = 1+1, 2 motors direct cut system, with anti-pull cover</li> </ul>		
Cable Length (mm)	0 = Straight, 100 1 = Straight, 500 2 = Straight, 750	3 = Straight, 1000 4 = Straight, 1250 5 = Straight, 1500	6 = Straight, 2000 7 = Curly, 200 8 = Curly, 400	K = 1 motor direct cut system. <u>See page 7</u> L = 1+1, 2 motors direct cut system. <u>See page 7</u>	

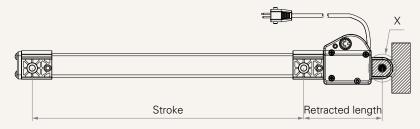
## TA25 Ordering Key Appendix



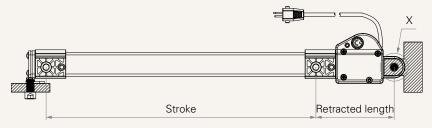
## Minimum Retracted Length Is According To Bracket On The Front & Rear End (Mm)

Bracket On The Front & Rear End	Minimum Retracted Length (mm)
0	122
1	122
2	99

#### 0 = Without



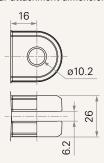
#### 1 = Style A: Iron bracket



## 2 = Style B: Plastic bracket



### X = Rear attachment dimensions (mm)



## TA25 Ordering Key Appendix

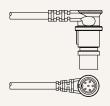


#### **Functions for Limit Switches**

Wire Definitions								
CODE	Pin							
	1 (Green)	2 (Red)	3 (White)	4 (Black)	5 (Yellow)	<b>6</b> (Blue)		
1	extend (VDC+)	N/A	N/A	N/A	retract (VDC+)	N/A		
2	extend (VDC+)	N/A	middle switch pin B	middle switch pin A	retract (VDC+)	N/A		
3	extend (VDC+)	common	upper limit switch	N/A	retract (VDC+)	lower limit switch		
4	extend (VDC+)	common	upper limit switch	medium limit switch	retract (VDC+)	lower limit switch		

### Connector

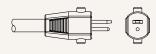
1 = DIN 6P, 90° plug



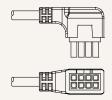




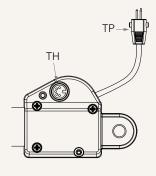
3 = Small 01P, plug



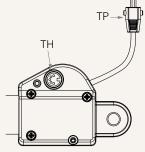
P = Molex 8P, 90°plug, without anti-clip



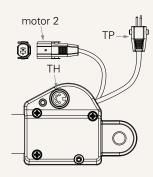
K = 1 motor direct cut system



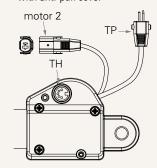
J = 1 motor direct cut system, with anti-pull cover

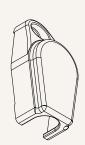


L = 1+1, 2 motors direct cut system



S = 1+1, 2 motors direct cut system, with anti-pull cover





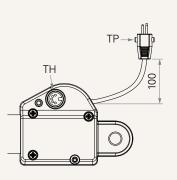
## **TA25** Ordering Key Appendix

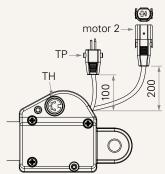


## Cable Length (mm)

K = 1 motor direct cut system

L = 1+1, 2 motors direct cut system





#### **Terms of Use**