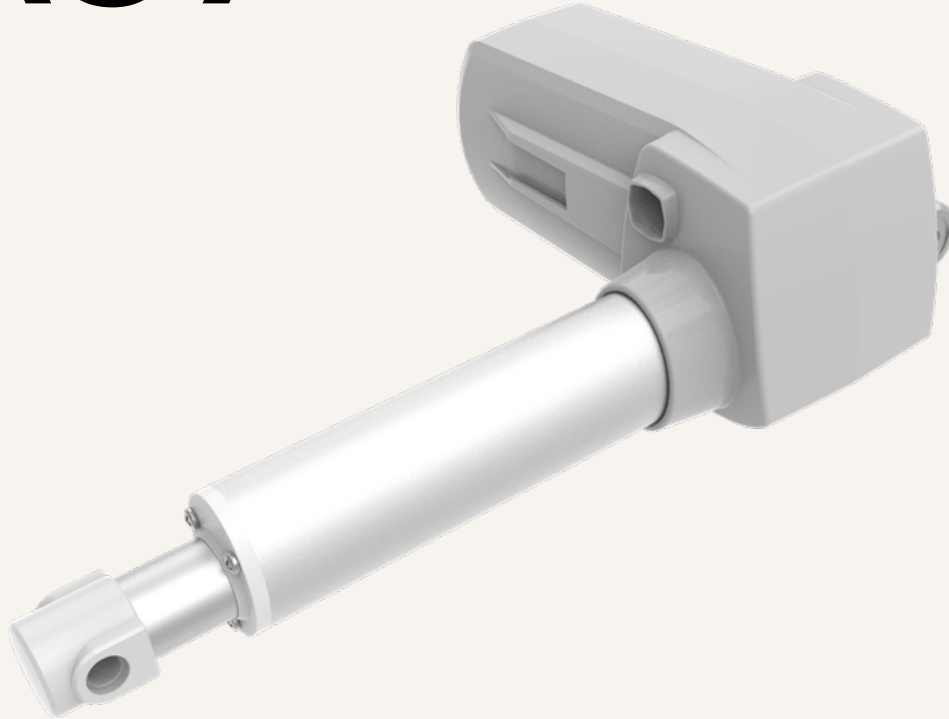# TA37

series

Product Segments

• Care Motion

TA37 is a specially designed motor for treatment table applications.

General Features

Voltage of motor	24, 36V DC (thermal protector)
Maximum load	10,000N in push
Maximum speed at full load	18mm/s (with 4000N in a push condition)
Stroke	25~1000mm
Minimum installation dimension	≥ Stroke +170mm
Color	Black or grey
IP Rating	Up to IP66W
Operational temperature range	+5°C~+45°C
Options	Hall sensor(s)
Certificate	IEC 60601-1

Drawing

Standard Dimensions
(mm)
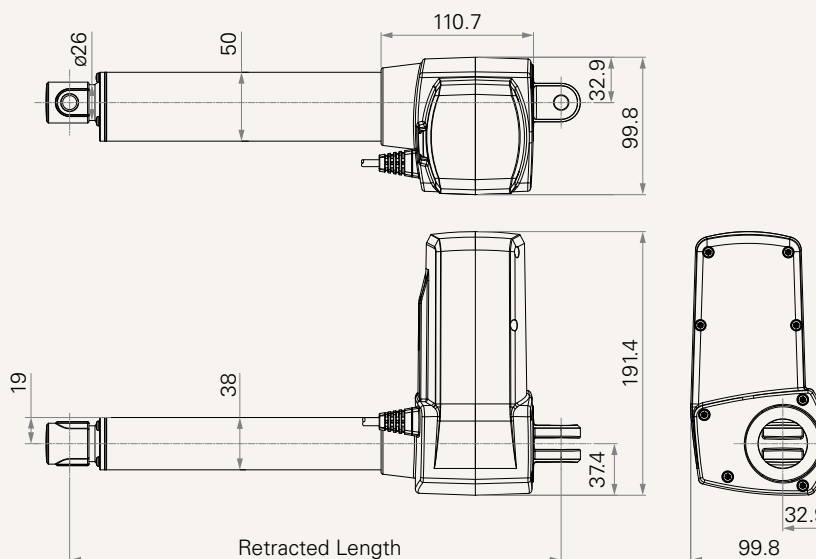
Load and Speed

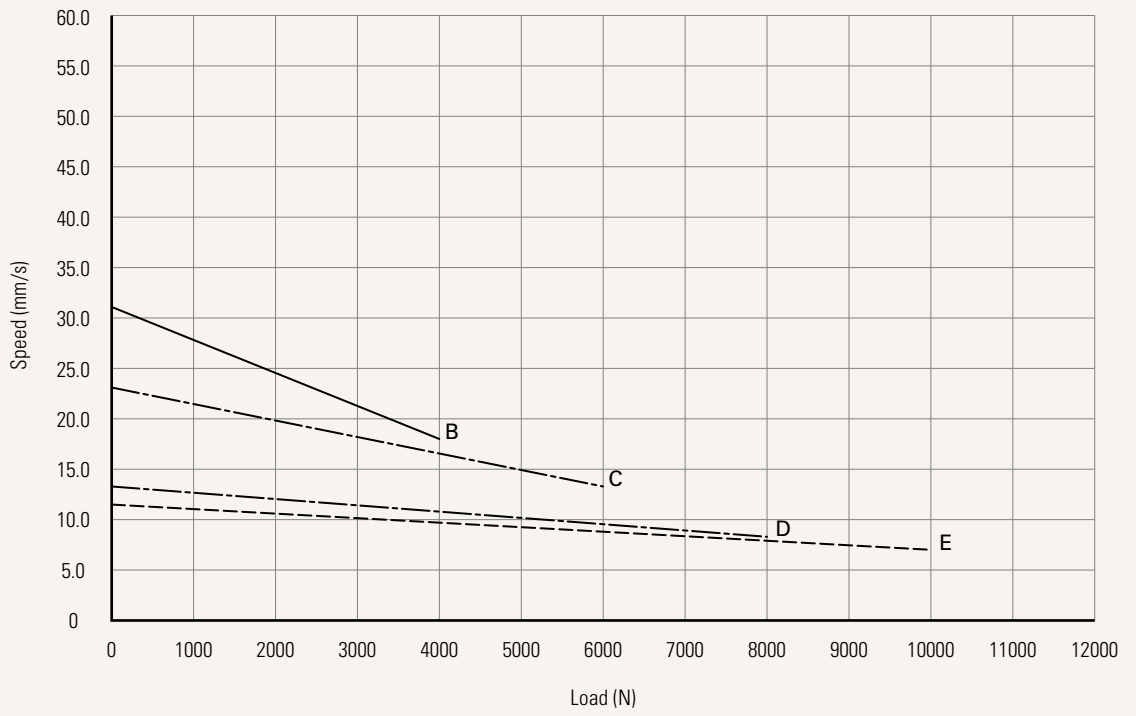| CODE	Load (N) Push	Self Locking Force (N)	Typical Current (A)		Typical Speed (mm/s)	
			No Load 32V DC	With Load 24V DC	No Load 32V DC	With Load 24V DC
Motor Speed (4100RPM, duty cycle 10%)						
B	4000	4000	2.0	8.0	31.1	18.0
C	6000	6000	2.0	10.0	23.1	13.3
D	8000	8000	2.0	8.4	13.3	8.3
E	10000	10000	2.0	9.2	11.5	7.0

Note

1 Max static pull load 4,000N, dynamic pull not allowed.

2 Please refer to the approved drawing for the final authentic value.

3 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. Speed will be similar for all the voltages.

4 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.

5 The current & speed in table are tested when the actuator is extending under push load.

6 Standard stroke: Min. ≥ 25mm, Max. please refer to below table.

CODE	Load (N)	Max Stroke (mm)
B	4000	1000
C	6000	900
D	8000	800
E	10000	650

TiMOTION

Performance Data (24V DC)

Motor Speed (4100RPM, duty cycle 10%)

Speed vs. Load

Current vs. Load

TA37 Ordering Key

TA37

Voltage	5 = 24V, thermal protector		7 = 36V, thermal protector	
Load and Speed	See page 2			
Stroke (mm)	See page 2			
Retracted Length (mm)	See page 5			
Rear Attachment (mm) See page 5	1 = Aluminum casting, U clevis, slot 6.2, depth 19.5, hole 10.2 2 = Aluminum casting, U clevis, slot 6.2, depth 19.5, hole 12.2 3 = Aluminum casting, U clevis, slot 8.2, depth 19.5, hole 10.2		4 = Aluminum casting, U clevis, slot 8.2, depth 19.5, hole 12.2 C = Aluminum casting, U clevis, slot 8.2, depth 19.5, hole 10.2, with plastic T-busing	
Front Attachment (mm) See page 6	1 = Punched hole on inner tube + plastic cap, without slot, hole 10.2, with plastic bush 2 = Punched hole on inner tube + plastic cap, without slot, hole 12.2 7 = Aluminum casting, U clevis, slot 6.2, depth 17.0, hole 10.2 8 = Aluminum casting, U clevis, slot 6.2, depth 17.0, hole 12.2		9 = Aluminum casting, U clevis, slot 6.2, depth 17.0, hole 10.2, with plastic T-bushing K = Aluminum casting, U clevis, slot 8.2, depth 17.0, hole 10.2 L = Aluminum casting, U clevis, slot 8.2, depth 17.0, hole 12.2 M = Aluminum casting, U clevis, slot 8.2, depth 17.0, hole 10.2, with plastic T-bushing	
Direction of Rear Attachment (Counterclockwise) See page 6	1 = 0°	3 = 90°		
Color	1 = Black	2 = Grey (Pantone 428C)		
IP Rating	1 = Without	2 = IP54	3 = IP66	5 = IP66W
Special Functions for Spindle Sub-Assembly	0 = Without (standard) 1 = Safety nut		2 = Standard push only 3 = Standard push only + safety nut	
Functions for Limit Switches See page 7	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 5 = Two switches at full retracted/extended positions to send signal (For TC1, TC8, TC10, TC14, TC21)			
Output Signals	0 = Without	1 = Hall sensor * 1	2 = Hall sensor * 2	
Connector See page 7	1 = DIN 6P, 90° plug 2 = Tinned leads 4 = Big 01P, plug E = Molex 8P, plug		F = DIN 6P, 180° plug, for TEC extension cable standard option G = Audio plug	
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	

Note

1 TA37 is designed especially for push applications, not suitable for pull applications.

Retracted Length (mm)

1. Calculate A+B = Y
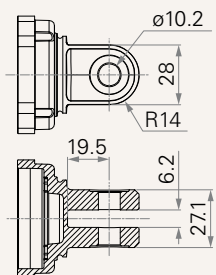2. Retracted length needs to ≥ Stroke + Y

A. Front Attachment

| CODE	General
1, 2	+170
7, 8, 9, K, L, M	+178

B. Load V.S. Stroke

Stroke (mm)	Load (N)			
	= 4000	= 6000	= 8000	= 10000
25~150	-	-	-	+5
151~200	-	-	+5	+10
201~250	-	+5	+10	+15
151~300	+5	+10	+15	+20
301~350	+10	+15	+20	+25
351~400	+15	+20	+25	+30
401~450	+20	+25	+30	+35
451~500	+25	+30	+35	+40
501~550	+30	+35	+40	+45
551~600	+35	+40	+45	+50
601~650	+40	+45	+50	+55
651~700	+45	+50	+55	+60
701~750	+50	+55	+60	+65
751~800	+55	+60	+65	+70
801~850	+60	+65	+70	+75
851~900	+65	+70	+75	+80
901~950	+70	+75	+80	+85
951~1000	+75	+80	+85	+90

Rear Attachment (mm)

1 = Aluminum casting, U clevis, slot 6.2, depth 19.5, hole 10.2

2 = Aluminum casting, U clevis, slot 6.2, depth 19.5, hole 12.2

3 = Aluminum casting, U clevis, slot 8.2, depth 19.5, hole 10.2

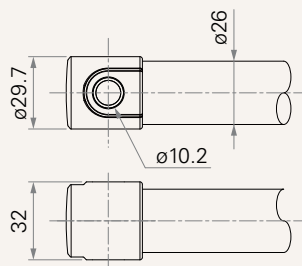4 = Aluminum casting, U clevis, slot 8.2, depth 19.5, hole 12.2

C = Aluminum casting, U clevis, slot 8.2, depth 19.5, hole 10.2, with plastic T-busing
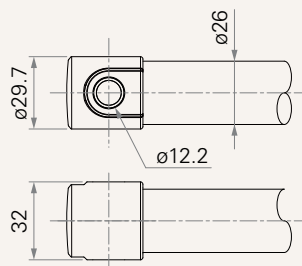
TA37 Ordering Key Appendix
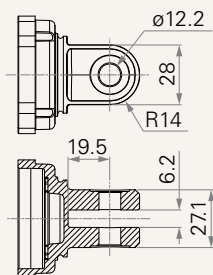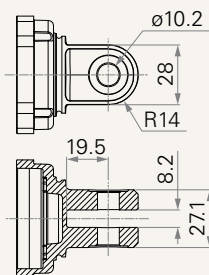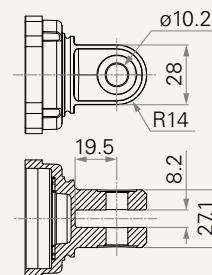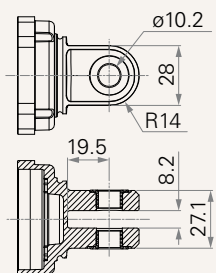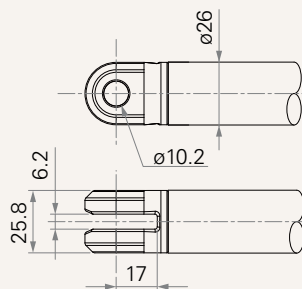

Front Attachment (mm)

1 = Punched hole on inner tube + plastic cap, without slot, hole 10.2, with plastic bush
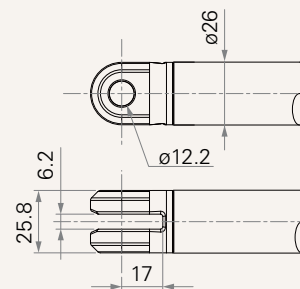

2 = Punched hole on inner tube + plastic cap, without slot, hole 12.2
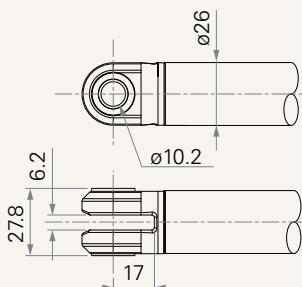

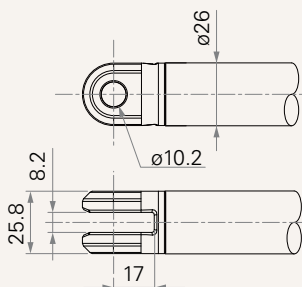7 = Aluminum casting, U clevis, slot 6.2, depth 17.0, hole 10.2

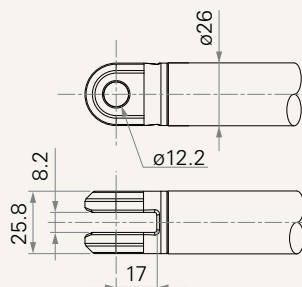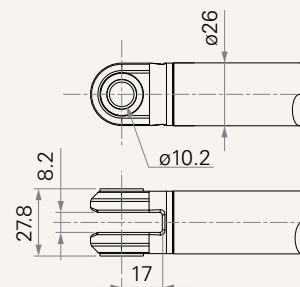8 = Aluminum casting, U clevis, slot 6.2, depth 17.0, hole 12.2

9 = Aluminum casting, U clevis, slot 6.2, depth 17.0, hole 10.2, with plastic T-busing

K = Aluminum casting, U clevis, slot 8.2, depth 17.0, hole 10.2

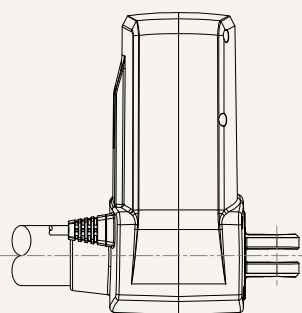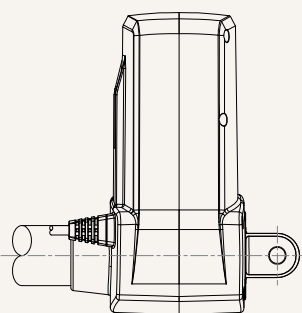L = Aluminum casting, U clevis, slot 8.2, depth 17.0, hole 12.2

M = Aluminum casting, U clevis, slot 8.2, depth 17.0, hole 10.2, with plastic T-busin

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Direction of Rear Attachment (Counterclockwise)

1 = 0°

3 = 90°

TA37 Ordering Key Appendix

Functions for Limit Switches

Wire Definitions

| CODE	Pin					
	● 1 (Green)	● 2 (Red)	○ 3 (White)	● 4 (Black)	● 5 (Yellow)	● 6 (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
5	extend (VDC+)	N/A	upper limit switch	common	retract (VDC+)	lower limit switch

Connector
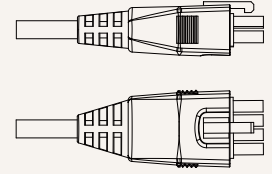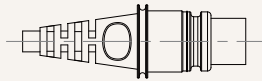
1 = DIN 6P, 90° plug
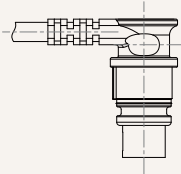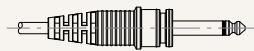
2 = Tinned leads
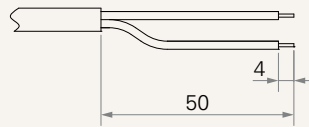
4 = Big 01P, plug
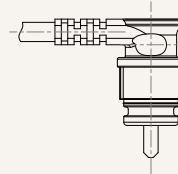
E = Molex 8P, plug

F = DIN 6P, 180° plug, for TEC
    extension cable standard option

G = Audio plug

Terms of Use

The user is responsible for determining the suitability of TiMOTION products for a specific application.
TiMOTION products are subject to change without prior notice.