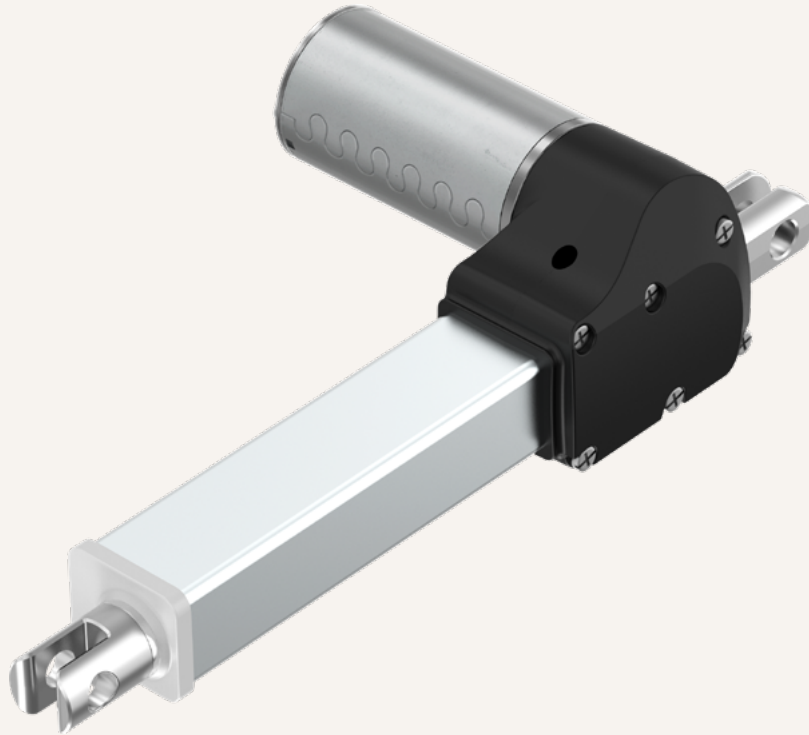# TA42

series

Product Segments

• Comfort Motion

TiMOTION's TA42 linear actuator can fulfill a manufacturer's seating requirement for small installation dimensions. It comes without any motor housing,which can save on space while being installed in the recliner. TA42's compact design is only 100mm. It has a maximum stroke length of 200mm, yet it can withstand a maximum pressure of 1500N, which can be perfect for the head position adjustment for recliners.

General Features

Max. load	1,500N (push/pull)
Max. speed at max. load	6.2mm/s
Max. speed at no load	13.2mm/s
Retracted length	≥ Stroke + 100mm
Stroke	25~200mm
Options	Push only
Voltage	24V DC; 24V DC (PTC)
Color	Black or grey
Operational temperature range	+5°C~+45°C
Suitable for recliner applications	

Drawing

Standard Dimensions
(mm)
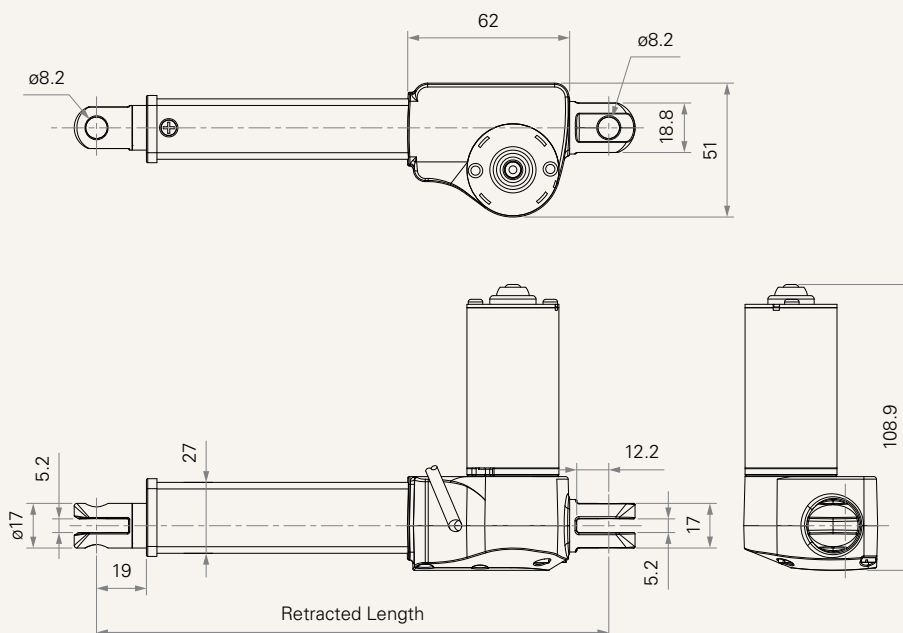
Load and Speed

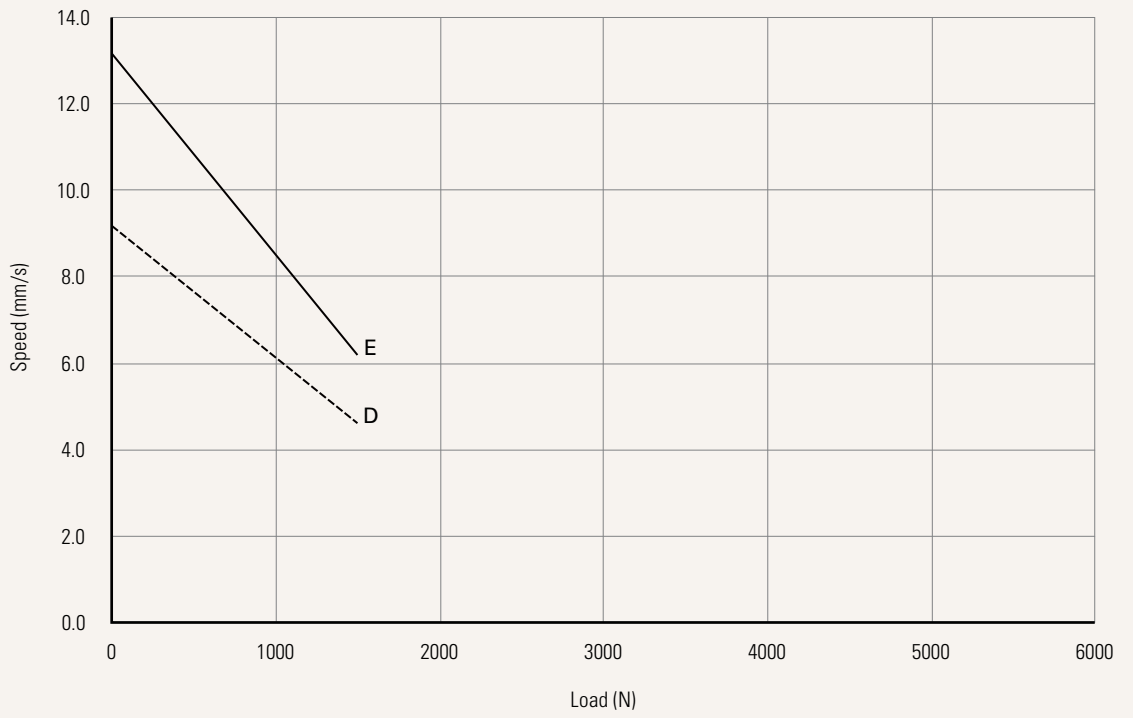| CODE	Load (N)		Typical Current (A)		Typical Speed (mm/s)	
	Push	Pull	No Load 32V DC	With Load 24V DC	No Load 32V DC	With Load 24V DC
Motor Speed (5000RPM, Duty Cycle 10%)						
D	1500	1500	0.6	1.6	9.2	4.6
E	1500	1500	0.6	1.9	13.2	6.2

Note

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

2 The current & speed in table are tested with 24V DC motor.

3 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.

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

5 The data in the performance charts shows theoretical value using specific TiMOTION control boxes. Please contact TiMOTION for more details.

6 Standard stroke: Min. ≥ 25mm, Max. please refer to below table.
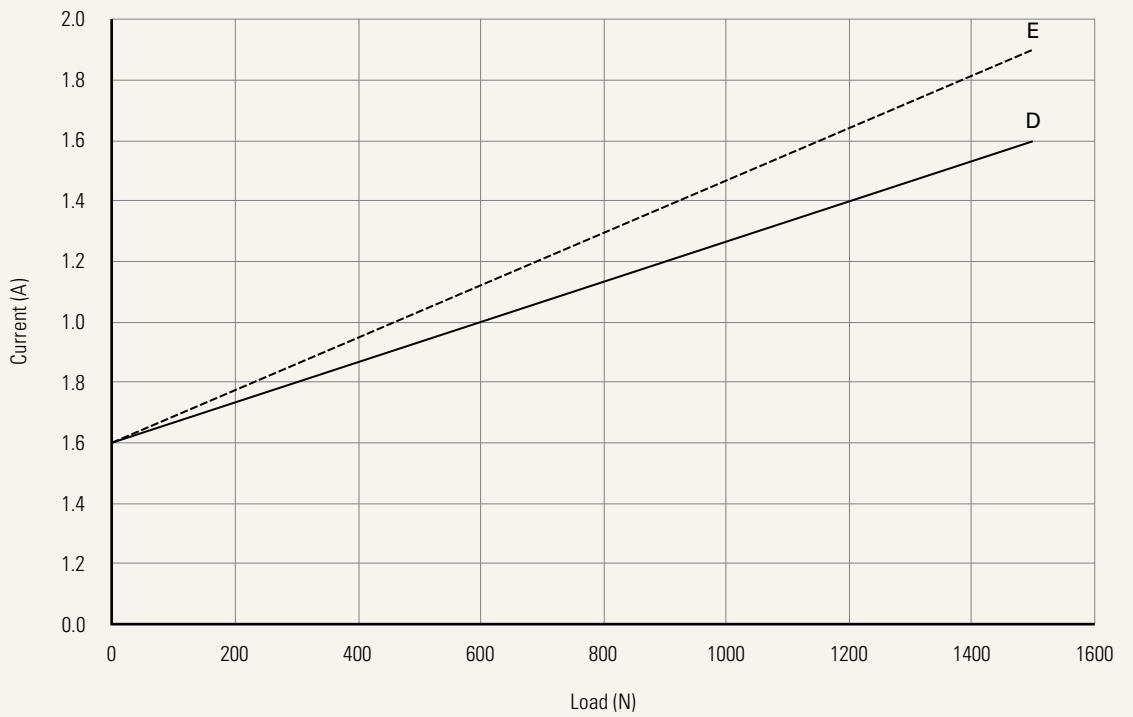
CODE	Load (N)	Max Stroke (mm)
D, E	≤ 1500	200

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Performance Data (24V DC Motor)

Motor Speed (5000RPM, Duty Cycle 10%)

Speed vs. Load

Current vs. Load

TiMOTION

TA42 Ordering Key

Voltage	2 = 24V DC	5 = 24V DC, PTC

Load and Speed	See page 2

Stroke (mm)	See page 2

Retracted Length (mm)	See page 5

Rear Attachment (mm) See page 5	N = Plastic, U clevis, one piece, slot 6, depth 13, hole 10 E = Aluminum casting, U clevis, slot 5.2, depth 12.2, hole 6.2 G = Aluminum casting, U clevis, slot 5.2, depth 12.2, hole 8.2

Front Attachment (mm) See page 5	N = Plastic, U clevis, slot 7, depth 20, hole 10 E = Aluminum casting, U clevis, slot 5.2, depth 12.2, hole 6.2 G = Aluminum casting, U clevis, slot 5.2, depth 12.2, hole 8.2

Direction of Rear Attachment (Counterclockwise) See page 6	1 = 0°	3 = 90°

Color	1 = Black + 428C retaining ring	2 = Pantone 428C + 428C retaining ring

IP Rating	1 = Without

Special Functions for Spindle Sub-Assembly	0 = Without	2 = Push only

Functions for Limit Switches See page 6	1 = Two switches at full retracted / extended positions to cut current 3 = Two switches at full retracted / extended positions to send signal

Output Signals	0 = Without

Connector See page 6	1 = DIN 6P, 90° plug 2 = Tinned leads	P = Molex 8P, without anti-clip, 90° plug Q = Molex 6P, 90° plug (40511-123)

Cable Length (mm)	0 = Straight, 100	3 = Straight, 1000	6 = Straight, 2000
	1 = Straight, 500	4 = Straight, 1250	7 = Curly, 200
	2 = Straight, 750	5 = Straight, 1500	8 = Curly, 400

Retracted Length (mm)

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

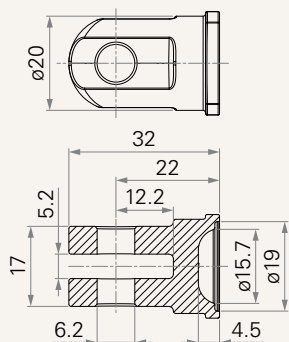| A.		
Front Attach.	Rear Attach.	
	E, G	N
E, G	+100	+98
N	+117	+115

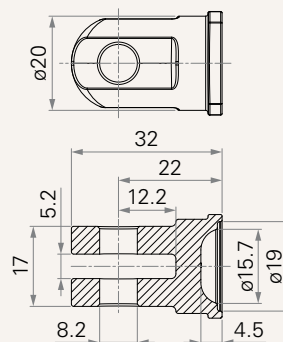| B. Stroke (mm)	
25~200	-

Rear Attachment (mm)

N = Plastic, U clevis, one piece, slot 6, depth 13, hole 10
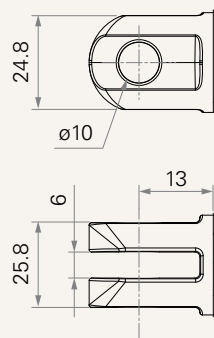
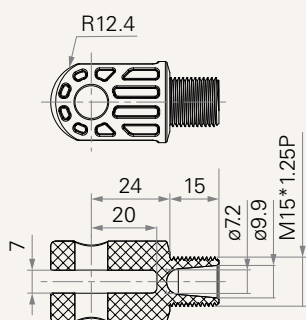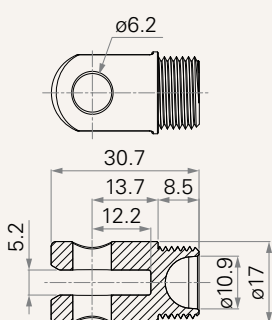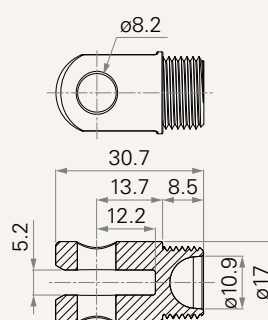E = Aluminum casting, U clevis, slot 5.2, depth 12.2, hole 6.2

G = Aluminum casting, U clevis, slot 5.2, depth 12.2, hole 8.2

Front Attachment (mm)

N = Plastic, U clevis, slot 7, depth 20, hole 10

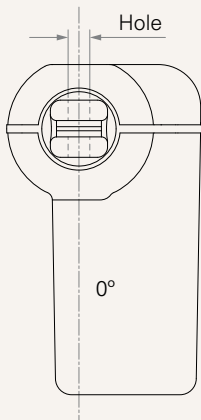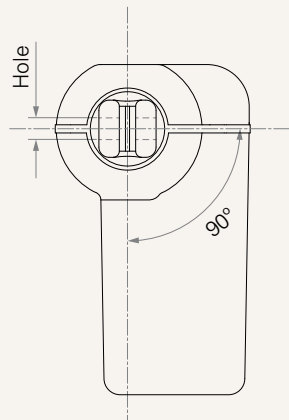E = Aluminum casting, U clevis, slot 5.2, depth 12.2, hole 6.2

G = Aluminum casting, U clevis, slot 5.2, depth 12.2, hole 8.2

Direction of Rear Attachment (Counterclockwise)
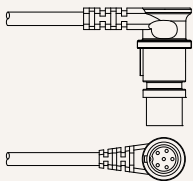
1 = 0°   3 = 90°
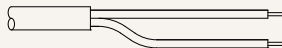

Functions for Limit Switches

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
3	extend (VDC+)	common	upper limit switch	N/A	retract (VDC+)	lower limit switch

Connector

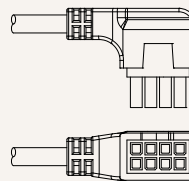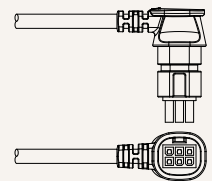1 = DIN 6P, 90° plug   2 = Tinned leads   P = Molex 8P, without anti-clip, 90°plug   Q = Molex 6P, 90° plug (40511-123)

Terms of Use

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