

**THOMSON™**

# Telescopic Lifting Column Movoact TC16

 **DANAHER**  
MOTION

*Helping you build a better machine, faster.*

## Presentation

Thomson Movoact TC16 is another product innovation from Danaher Motion. The TC16 will make the utilisation of linear motion products easier. It has all the hallmarks that you would expect from a Thomson actuator; quality, easy installation and long, trouble free life.

Designed to suit many applications, the Movoact TC16 will fit perfectly into all kinds of medical, disability, rehabilitation and health and fitness equipment. With a low retracted versus stroke length ratio, the Movoact TC16 is the ideal product for applications that demand a high load in a space critical environment.

The innovative and aesthetic design of the aluminium extrusions allows the Movoact TC16 to be a visible component. This will eliminate the need for cover plates or enclosures thus reducing material cost, assembly time and in addition, it makes servicing easy.

The Movoact TC16 is built around a unique combination of double-telescoping lead screws with a belt driven gear and the latest in motor technology. This unique design ensures quiet operation in a highly efficient package, giving a high load capacity with minimum current consumption.

The guiding technology between the aluminium extrusions offers smooth, quiet, rigid and maintenance free operation. The innovative design utilises the latest anti-friction material giving a high moment load capability in a very small envelope.

Please contact your nearest Danaher Motion office, where we will be more than happy to provide you with additional information on the Movoact TC16 and how it can help to improve on your existing designs.



# Applications

Movoact TC16 is designed to be used in domestic, medical and office environments, as well as in disability equipment. Some typical applications are among reclining beds, dental chairs, adjustable computer tables, X-ray equipment, wheelchairs, fitness equipment and in the adaptation of vehicles for the disabled.



- Adjustable chairs
- Dental chairs
  - Barber chairs
  - Make up chairs



- Health and fitness equipment
- Training machines



- Furniture
- Desks
  - Tables



- Handicap equipment
- Lifting aids
  - Adaptation of vehicles for the disabled



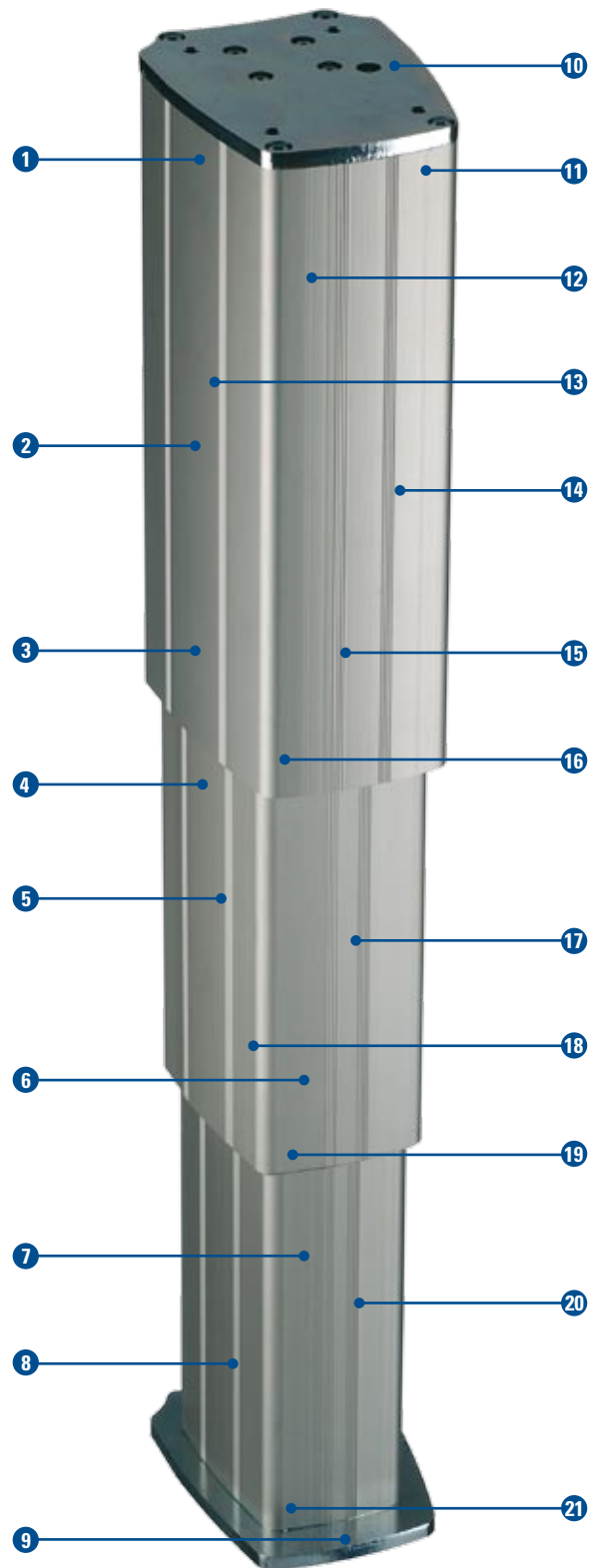
- Hospital equipment
- X-ray machines
  - Operating tables
  - Hospital beds
  - Massage tables
  - Patient lifts



- Wheelchairs

# Overview

1. High moment load capability
2. Anodised aluminium profiles with 20 µ anodisation and surface tolerance class 3 (furniture standard)
3. Very favourable ratio between the stroke and the retracted length
4. Telescopic screw drive
5. IP 44 protection degree
6. Maintenance free
7. Speed up to 19 mm/s
8. Integrated load holding brake
9. End plates in zinc plated steel
10. CE approved
11. Quiet operation, suitable for domestic use
12. Aesthetic design
13. Load up to 2000 N
14. Very low retracted height
15. Dynamic braking
16. Low weight
17. Self supporting
18. Smooth operation
19. EMC recognised according to medical equipment standards
20. Simple to install
21. Built in end of stroke limit switches



## Technical data



Parameter		TC16
Input voltage	[Vdc]	24
Max. current draw	[A]	8
Max. speed	[mm/s]	19
Screw type		Trapezoidal
Max. load	[N]	2000
Max. static load torque	[Nm]	500
Max. dynamic load torque	[Nm]	150
Min. / max. standard stroke	[mm]	200 / 400
Duty cycle @ 20 °C	[%]	15
Max. on time @ 20 °C	[s]	60
Temperature limits at operation	[°C]	0 – +40
Weight	[kg]	$3,4 + L \times 0,02 + S \times 0,001$
Protection degree		IP44
Internal limit switches		yes
Wire cross section	[mm <sup>2</sup> ]	1,5
Wire length	[mm]	1000
Connector included	[kg]	yes

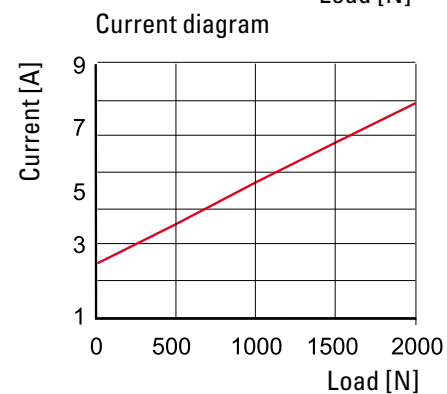
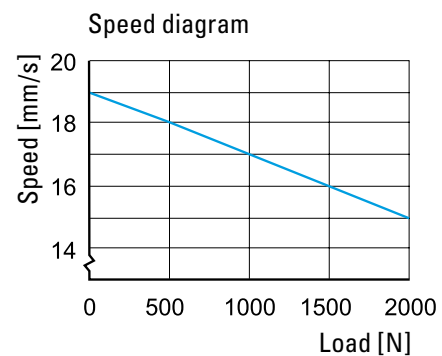
## Features

- Telescopic screw drive
- Quiet operation
- Very low retracted height
- High moment load capability
- 24 Vdc supply voltage
- Self locking/static load holding
- Integrated load holding brake
- Dynamic braking
- Load up to 2000 N
- Speed up to 19 mm/s
- Modern aluminium extrusion design
- CE approval
- EMC approved according to medical standards  
(emission: EN 61000-6-3:2001, EN 60601-1-2:1993,  
EN 55011 Class B, immunity: EN 61000-6-2:2001,  
EN 61000-4-2, EN 61000-4-3)

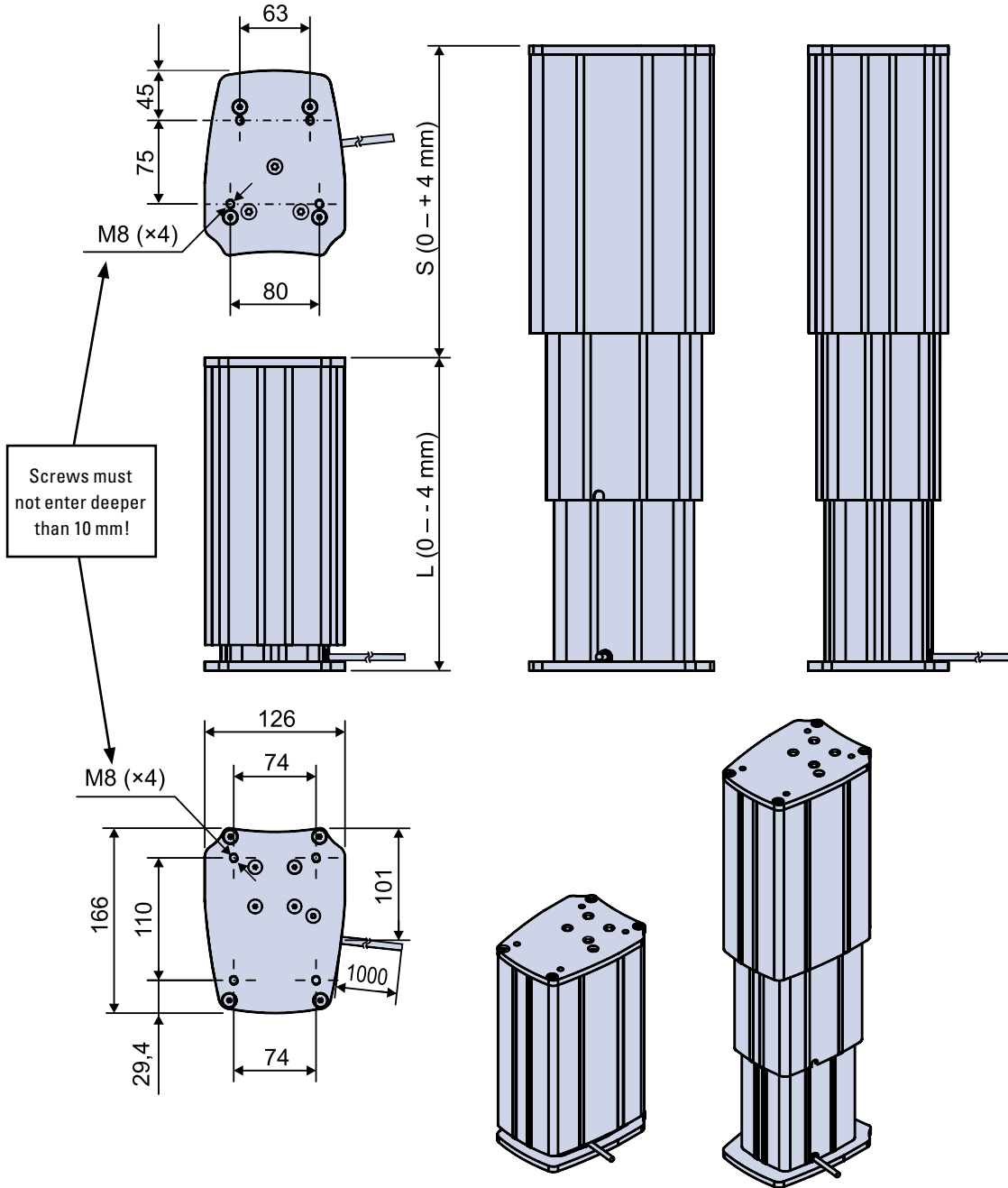
## Options

- Encoder feedback

## Performance



## Dimensions



## Stroke and length

<b>Stroke (S)</b>	S min. = 200 mm, S max. = 400 mm
<b>Retracted length (L)</b>	L min. = 250 mm, L max. = 400 mm
<b>Longest possible stroke (S) for a given retracted length (L)</b>	S max. = L × 2 - 282
<b>Shortest possible retracted length (L) for a given stroke (S)</b>	L min. = (S + S82) / 2

## Ordering key

Movoact TC16								
Your Code								
	1	2	3	4	5	6	7	8
Example	TC	16 –	24	T12	M	250	300	X
<b>1. Actuator type</b> TC = telescopic column			<b>4. Transmission type</b> T12 = trapezoidal screw / diameter 12 mm / lead 12 mm			<b>8. Option</b> X = no option E = encoder		
<b>2. Profile size</b> 16 – = 166 × 126 mm			<b>5. Engineering unit</b> M = metric			<sup>1</sup> S min. = 200 mm, S max. = 400 mm, max. possible stroke = L × 2 - 282		
<b>3. Supply voltage</b> 24 = 24 Vdc			<b>6. Ordering stroke (S)<sup>1</sup></b> ••• = stroke in mm			<sup>2</sup> L min. = 250 mm, L max. = 400 mm		
			<b>7. Ordering length (L)<sup>2</sup></b> ••• = length in mm					

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