

# Lifting Column TC16

## 24 Vdc - load up to 2000 N

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### Standard Features and Benefits

- Designed for domestic, office and medical applications
- Self supporting column in extruded anodized aluminum
- Low weight and quiet operation
- Smooth operating telescopic screw drive
- High load torque capability
- Very short retracted length
- Very low stroke to retracted length ratio
- Maintenance free
- Dynamic braking and load holding brake
- Integrated end of stroke limit switches
- EMC recognized for medical applications

### General Specifications

Parameter	TC16
Screw type	trapezoidal
Internally restrained	yes
Manual override	no
Dynamic braking	yes
Holding brake	yes
End of stroke protection	end of stroke limit switches
Mid stroke protection	no
Motor protection	no
Motor connection	cable
Motor connector	DIN 41524 8 pin plug
Certificates	CE EMC for medical applications*
Options	encoder

\* 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

### Performance Specifications

Parameter	TC16
Maximum load [N]	2000
Maximum load torque, dynamic / static [Nm]	150 / 500
Speed, at no load / at maximum load [mm/s]	19 / 15
Available input voltages [Vdc]	24
Maximum standard stroke* [mm]	400
Minimum standard stroke [mm]	200
Operating temperature limits [°C]	0 – +40
Full load duty cycle @ 20 °C [%]	15
Maximum on time [s]	60
Restraining torque [Nm]	0
Lead cross section [mm <sup>2</sup> ]	1,5
Cable length [mm]	2000
Protection class	IP44

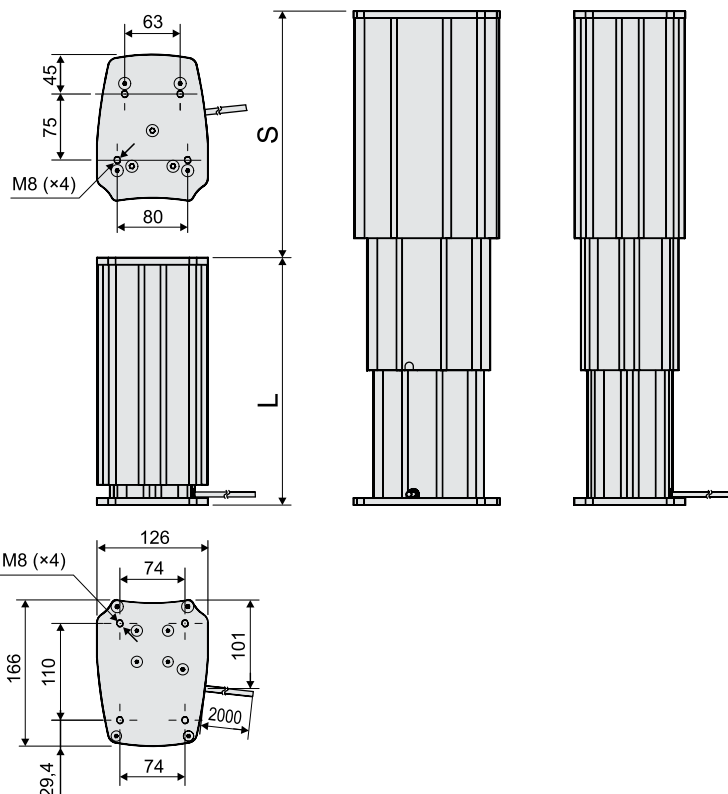
\* For longer stroke length, contact customer support.

### Compatible Controls

Control model	See page
DPDT switch	48
DPDT switch box	49
DCG-180	54
DCG-280	54
AC-247 ELS	52

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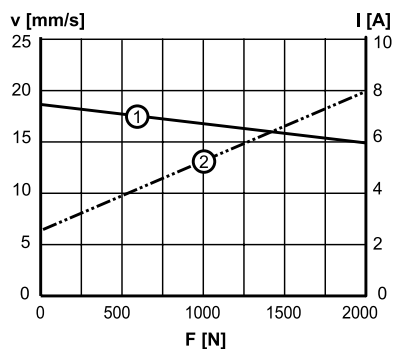


S: stroke  
L: retracted length

<b>Stroke (S), minimum and maximum</b>	Min. possible stroke (Smin) = 200 mm, Max. possible stroke (Smax) = 400 mm
<b>Retracted length (L), minimum and maximum</b>	Min. retracted length (Lmin) = 250 mm, Max. retracted length (Lmax) = 400 mm
<b>Stroke / retracted length relationship</b>	Longest possible stroke (S) for a given retracted length (L) [mm] = L [mm] × 2 - 282
<b>Retracted length / stroke relationship</b>	Shortest possible retracted length (L) for a given given stroke (S) [mm] = (S [mm] + 282) / 2
<b>Weight</b>	Weight of unit [kg] = 3,4 + L × 0,0203 + S × 0,000755

## Performance Diagrams

### Speed and Current vs. Load



V: speed I: current F: load

1: speed  
2: current