TL8
series

Product Segments

- **Care Motion**

TiMOTION's TL8 series columns are designed with a 3 stage cylindrical appearance and built-in motors. It was designed primarily for use in medical applications. The TL8 provides stable vertical lifting. This makes the engineering design process easier and safer by replacing older style lifting mechanisms that use many moving stages and have pinch points.

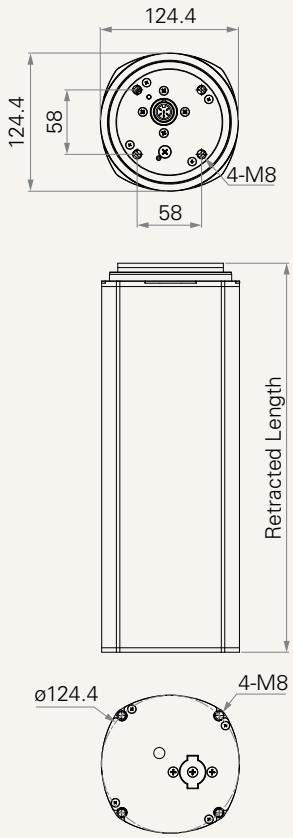
General Features

Maximum load	2,000N in push
Maximum speed at full load	19mm/s (with 1,000N in a push condition)
Minimum installation dimension	350mm
Stroke	400mm
Dimension of outer tube	Ø124.4mm
Certificate	IEC60601-1 compliant
Operational temperature range	+5°C~+45°C

The TL8 can only be used in pairs; single column usage is not recommended.
The TL8 is recommended for push applications only; pull conditions are not advised.

Drawing

Standard Dimensions (mm)



Load and Speed

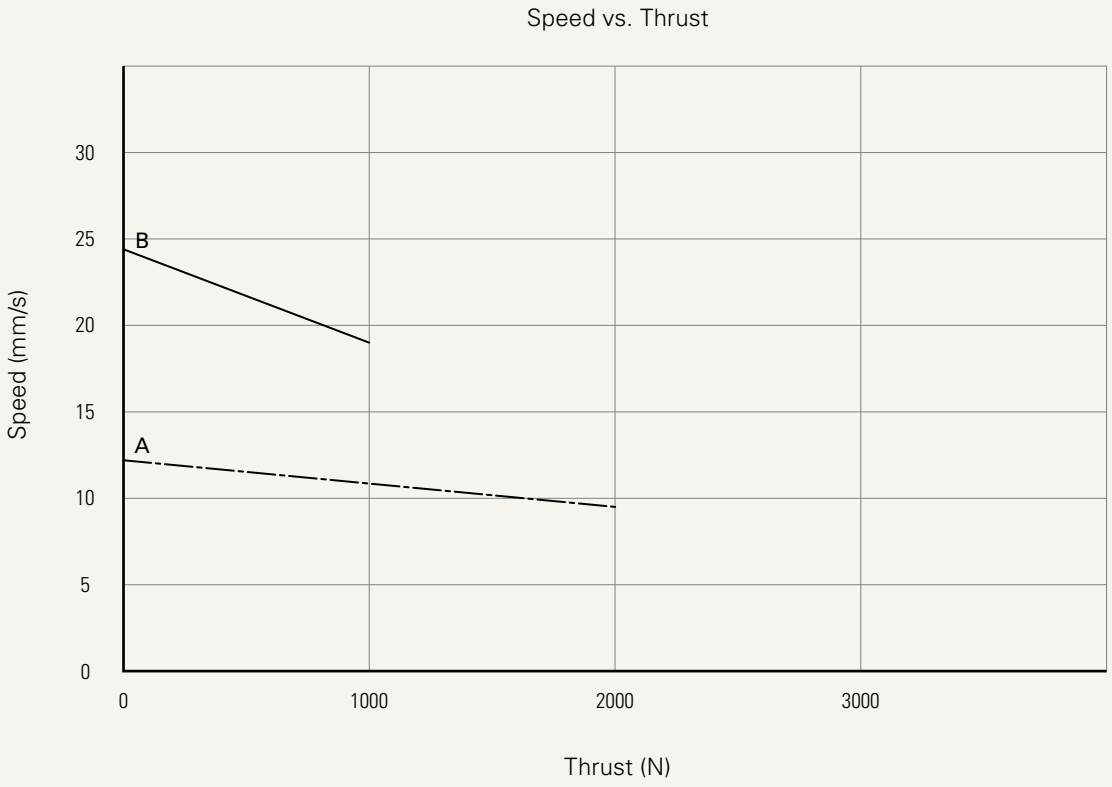
CODE	Load (N)	Bending moment (Nm)		Self locking force (N)	Typical Current (A)		Typical Speed (mm/s)	
	Push	Dynamic	Static		No Load 32V DC	With Load 24V DC	No Load 32V DC	With Load 24V DC
Motor Speed (5200RPM)								
A	2000	500	1000	2000	2.0	4.3	12.2	9.5
B	1000	250	500	1000	2.0	4.0	24.4	19.0

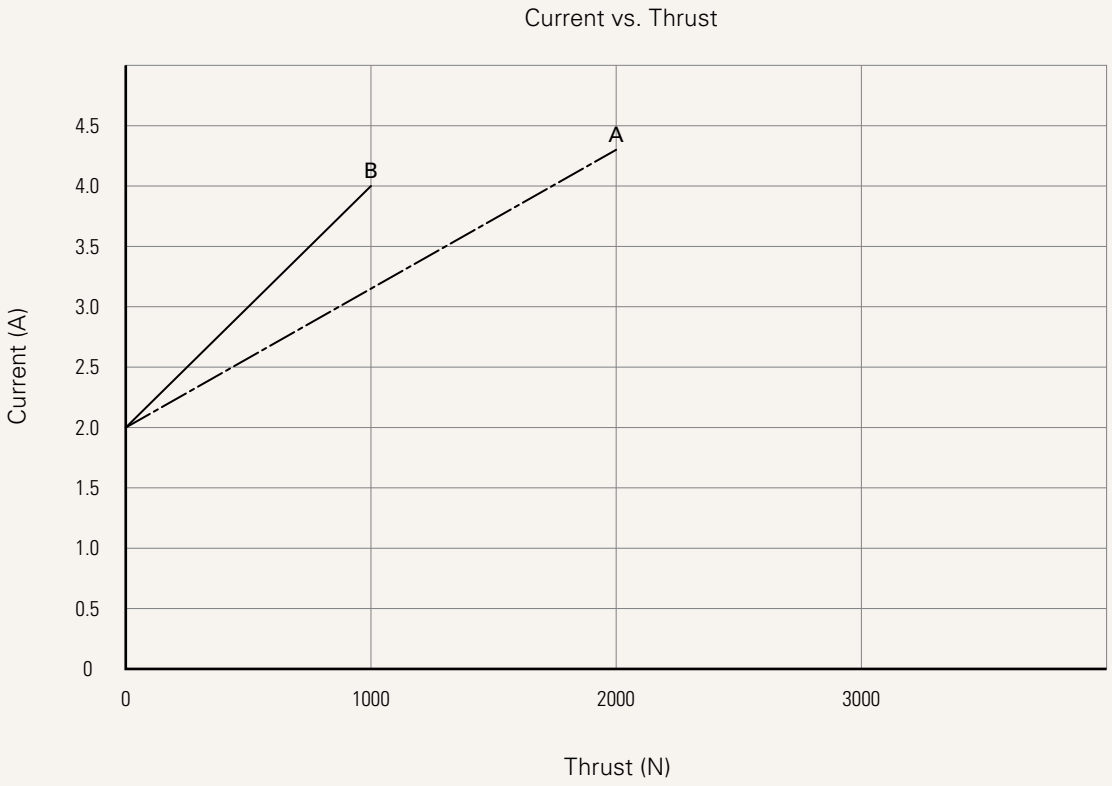
Note

1 Parameters above are from tested average, please refer to approval drawing for final value.

Performance Data

Motor Speed (5200RPM)

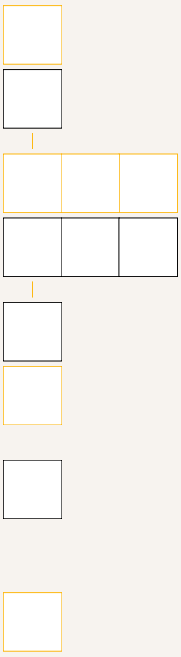




TL8 Ordering Key

TL8

Version: 20170613-F



Voltage	5 = 24V, PTC	
Load and Speed	See page 2	
Stroke (mm)	400mm (Standard, but could be less than 400mm)	
Retracted Length (mm)	Minimum retract length needs to ≥ (stroke/2) + 150mm	
Color	2 = Grey (Pantone 428C)	
Special Functions for Spindle Sub-Assembly	0 = Without (standard)	
Functions for Limit Switches See page 5	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	2 = Two Hall sensors

TL8 Ordering Key Appendix

Functions for Limit Switches

Wire Definitions

CODE	Pin					
	1	2	3	4	5	6
	(green)	(red)	(white)	(black)	(yellow)	(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