



**MOTION TECHNOLOGIES
PTY LTD**

RODLESS ACTUATORS



Rodless Actuator LM80-H

12 and 24 Vdc - load up to 2000 N



For Horizontal Operation

- For use in domestic, office or medical application
- Rigid self supporting extruded aluminum profile
- Durable and corrosion free
- Lightweight and quiet operation
- Safety nut on ball screw versions
- Easy and fast T-slot mounting
- Maintenance free

General Specifications

Parameter	LM80-H
Screw type	trapezoidal or ball
Internally restrained	yes
Manual override	no
Dynamic braking	no
Holding brake	no
End of stroke protection	spring loaded soft stop
Mid stroke protection	no
Motor protection	no
Motor connection with motor enclosure no motor enclosure	cable no cable, clips on motor
Motor connector with motor enclosure no motor enclosure	DIN 41524 8 pin plug clips on motor
Certificates	CE
Options	<ul style="list-style-type: none"> • no motor enclosure • manual override • alternative motor positions • stroke over 1500 mm* • encoder *

* Contact customer support

Performance Specifications

Parameter		LM80-H
Maximum load (Fb)	[N]	2000
Maximum load torque (Mb)	[Nm]	
DT••-T68M ••••• H		250
DT••-B61M ••••• H		400
DT••-B62M ••••• H		180
DT••-B65M ••••• H		750
Speed, at no load / at maximum load	[mm/s]	
DT••-T68M ••••• H		44 / 37
DT••-B61M ••~•• H		55 / 50
DT12 -B62M ••••• H		110 / 73
DT24 -B62M ••~•• H		110 / 87
DT••-B65M ••~•• H		28 / 28
Available input voltages	[Vdc]	12, 24
Standard stroke lengths	[mm]	500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500
Operating temperature limits	[°C]	0 – +40
Full load duty cycle @ 20 °C	[%]	15
Maximum on time	[s]	120
End play, maximum	[mm]	1,0
Restraining torque	[Nm]	0
Lead cross section with / without motor enclosure	[mm ²]	1,5 / –
Cable length with / without motor enclosure	[mm]	2000 / –
Protection class with / without motor enclosure		IP44 / IP33

Compatible Controls

Control model	See page
DPDT switch	53
DCG-170	58
AC-247 ELS	56

Rodless Actuator LM80-H

12 and 24 Vdc - load up to 2000 N

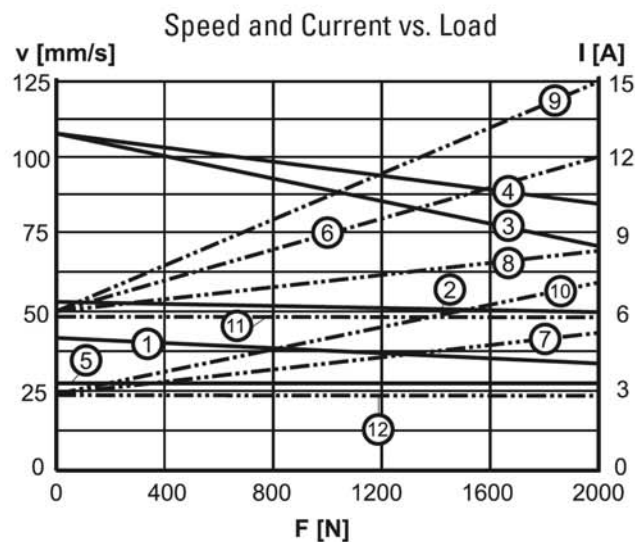
! Note: this unit may only be mounted horizontally.



S: stroke
L: length of profile
A1: motor shown in position A (standard position)

Stroke (S)	[mm]	500	600	700	800	900	1000	1100	1200	1300	1400	1500
Dimensions (A) / (B)	[mm]											
DT••-T68M•••••H		54,0 / 77,0										
DT••-B61M•••••H		102,0 / 77,0										
DT••-B62M•••••H		102,0 / 77,0										
DT••-B65M•••••H		79,0 / 77,0										
Weight	[kg]											
DT••-T68M•••••H		11,2	13,1	14,8	16,6	18,1	20,2	22,0	23,8	25,5	27,4	29,1
DT••-B61M••~••H		12,1	13,9	15,7	17,5	19,3	21,0	22,9	24,6	26,3	28,2	30,0
DT••-B62M••~••H		12,1	13,9	15,7	17,5	19,3	21,0	22,9	24,6	26,3	28,2	30,0
DT••-B65M••~••H		11,7	13,5	15,3	17,1	18,9	20,6	22,4	24,2	26,0	27,8	29,6

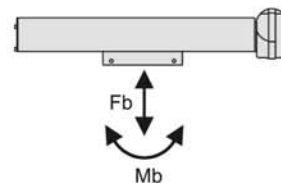
Performance Diagrams



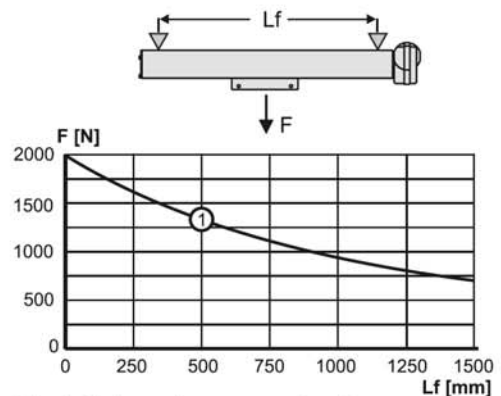
V: speed I: current F: load

- 1: speed DT••-T68M••~••H
- 2: speed DT••-B61M••~••H
- 3: speed DT12-B62M••~••H
- 4: speed DT24-B62M••~••H
- 5: speed DT••-B65M••~••H
- 6: current DT12-T68M••~••H
- 7: current DT24-T68M••~••H and DT24-B61M••~••H
- 8: current DT12-B61M••~••H
- 9: current DT12-B62M••~••H
- 10: current DT24-B62M••~••H
- 11: current DT12-B65M••~••H
- 12: current DT24-B65M••~••H

Definition of Forces



Deflection of Profile



F: load Lf: distance between mounting points

1: maximum allowed deflection

Rodless Actuator LM80-V

12 and 24 Vdc - load up to 2000 N



Vertical Operation with Motor Down

- For use in domestic, office or medical applications
- Rigid self supporting extruded aluminum profile
- Durable and corrosion free
- Holding brake prevents downward motion at power off
- Lightweight and quiet operation
- Safety nut on ball screw versions
- Easy and fast T-slot mounting
- Optional spline safety function
- Maintenance free

General Specifications

Parameter	LM80-V
Screw type	trapezoidal or ball
Internally restrained	yes
Manual override	no
Dynamic braking	no
Holding brake	yes
End of stroke protection	spring loaded soft stop
Mid stroke protection	no
Motor protection	no
Motor connection with motor enclosure no motor enclosure	cable no cable, clips on motor
Motor connector with motor enclosure no motor enclosure	DIN 41524 8 pin plug clips on motor
Certificates	CE
Options	<ul style="list-style-type: none"> • no motor enclosure • manual override • alternative motor positions • spline safety function • stroke over 1500 mm* • encoder *

* Contact customer support

Performance Specifications

Parameter		LM80-V
Maximum load (Fa)	[N]	
DT•• -T68M ••••• V(F)		650
DT•• -B61M ••••• V(F)		1000
DT•• -B62M ••••• V(F)		450
DT•• -B65M ••••• V(F)		2000
Maximum load torque (Ma)	[Nm]	
DT•• -T68M ••••• V(F)		250
DT•• -B61M ••~•• V(F)		400
DT•• -B62M ••~•• V(F)		180
DT•• -B65M ••~•• V(F)		750
Speed, at no load / at maximum load	[mm/s]	
DT12 -T68M ••~•• V(F)		44 / 29
DT24 -T68M ••~•• V(F)		44 / 35
DT12 -B61M ••~•• V(F)		55 / 37
DT24 -B61M ••~•• V(F)		55 / 43
DT12 -B62M ••~•• V(F)		110 / 67
DT24 -B62M ••~•• V(F)		110 / 83
DT12 -B65M ••~•• V(F)		28 / 19
DT24 -B65M ••~•• V(F)		28 / 22
Available input voltages	[Vdc]	12, 24
Standard stroke lengths	[mm]	500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500
Operating temperature limits	[°C]	0 – +40
Full load duty cycle @ 20 °C	[%]	15
Maximum on time	[s]	120
Restraining torque	[Nm]	0
Lead cross section with / without motor enclosure	[mm ²]	1,5 / –
Cable length with / without motor enclosure	[mm]	2000 / –
Protection class with / without motor enclosure		IP44 / IP33

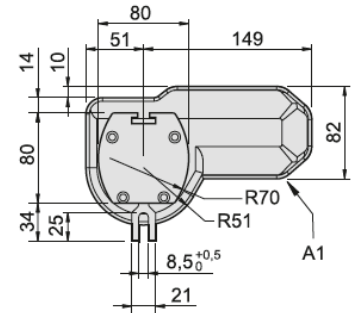
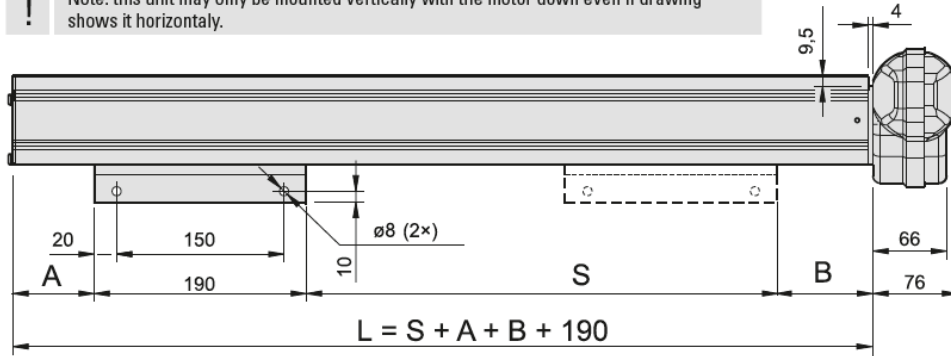
Compatible Controls

Control model	See page
DPDT switch	53
DCG-160	58
AC-247 ELS	56

Rodless Actuator LM80-V

12 and 24 Vdc - load up to 2000 N

! Note: this unit may only be mounted vertically with the motor down even if drawing shows it horizontally.



S: stroke
L: length of profile
A1: motor shown in position A (standard position)

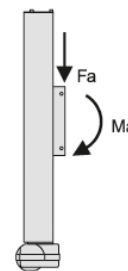
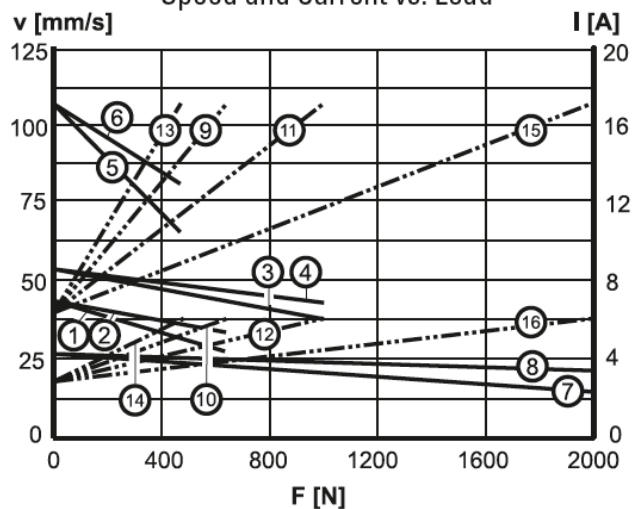
Stroke (S)	[mm]	500	600	700	800	900	1000	1100	1200	1300	1400	1500
Dimensions (A) / (B)	[mm]											
DT••-T68M •••••V		50,0 / 71,0										
DT••-B61M •••••V		53,0 / 120,0										
DT••-B62M •••••V		53,0 / 120,0										
DT••-B65M •••••V		53,0 / 97,0										
DT••-T68M •••••F		50,0 / 90,0										
DT••-B61M •••••F		53,0 / 144,0										
DT••-B62M •••••F		53,0 / 144,0										
DT••-B65M •••••F		53,0 / 126,0										
Weight*	[kg]											
DT••-T68M •••••V		11,1	12,9	14,7	16,5	18,2	20,0	21,8	23,6	25,4	27,2	28,9
DT••-B61M •••••V		11,6	13,4	15,2	17,0	18,7	20,5	22,3	24,1	25,9	27,7	29,5
DT••-B62M •••••V		11,6	13,4	15,2	17,0	18,7	20,5	22,3	24,1	25,9	27,7	29,5
DT••-B65M •••••V		12,0	13,8	15,6	17,6	19,3	21,1	22,9	24,7	26,5	28,2	30,1

* Add 0,5 kg to the below weights to get the weights for DT••-T68M •••••F, DT••-B61M •••••F, DT••-B62M •••••F and DT••-B65M •••••F.

Performance Diagrams

Definition of Forces

Speed and Current vs. Load



V: speed I: current F: load
1: speed DT12-T68M •••••V(F)
2: speed DT24-T68M •••••V(F)
3: speed DT12-B61M •••••V(F)
4: speed DT24-B61M •••••V(F)

5: speed DT12-B62M •••••V(F)
6: speed DT24-B62M •••••V(F)
7: speed DT12-B65M •••••V(F)
8: speed DT24-B65M •••••V(F)
9: current DT12-T68M •••••V(F)
10: current DT24-T68M •••••V(F)

11: current DT12-B61M •••••V(F)
12: current DT24-B61M •••••V(F)
13: current DT12-B62M •••••V(F)
14: current DT24-B62M •••••V(F)
15: current DT12-B65M •••••V(F)
16: current DT24-B65M •••••V(F)

Rodless Actuator LM80-I

24 Vdc - load up to 2000 N



Vertical Operation with Motor Down

- For use in domestic, office or medical applications
- Rigid self supporting extruded aluminum profile
- Durable and corrosion free
- Holding brake prevents downward motion at power off
- Lightweight and quiet operation
- Safety nut on ball screw versions
- Easy and fast T-slot mounting
- Maintenance free

General Specifications

Parameter	LM80-I
Screw type	trapezoidal or ball
Internally restrained	yes
Manual override	no
Dynamic braking	no
Holding brake	yes
End of stroke protection	spring loaded soft stop
Mid stroke protection	no
Motor protection	no
Motor connection	cable
Motor connector	DIN 41524 8 pin plug
Certificates	CE
Options	<ul style="list-style-type: none"> • manual override • encoder • stroke over 1500 mm*

* Contact customer support

Performance Specifications

Parameter	LM80-I
Maximum load (Fa) [N]	
DT24-T68M ••• GCV	650
DT24-B61M ••• GCV	1000
DT24-B62M ••• GCV	450
DT24-B65M ••• GCV	2000
Maximum load torque (Ma) [Nm]	
DT24-T68M ••• GCV	250
DT24-B61M ••• GCV	400
DT24-B62M ••• GCV	180
DT24-B65M ••• GCV	750
Speed, at no load / at maximum load [mm/s]	
DT24-T68M ••• GCV	44 / 35
DT24-B61M ••• GCV	55 / 43
DT24-B62M ••• GCV	110 / 83
DT24-B65M ••• GCV	28 / 22
Available input voltages [Vdc]	24
Standard stroke lengths [mm]	500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500
Operating temperature limits [°C]	0 – +40
Full load duty cycle @ 20 °C [%]	15
Maximum on time [s]	120
Restraining torque [Nm]	0
Lead cross section [mm ²]	1,5
Cable length [mm]	2000
Protection class	IP44

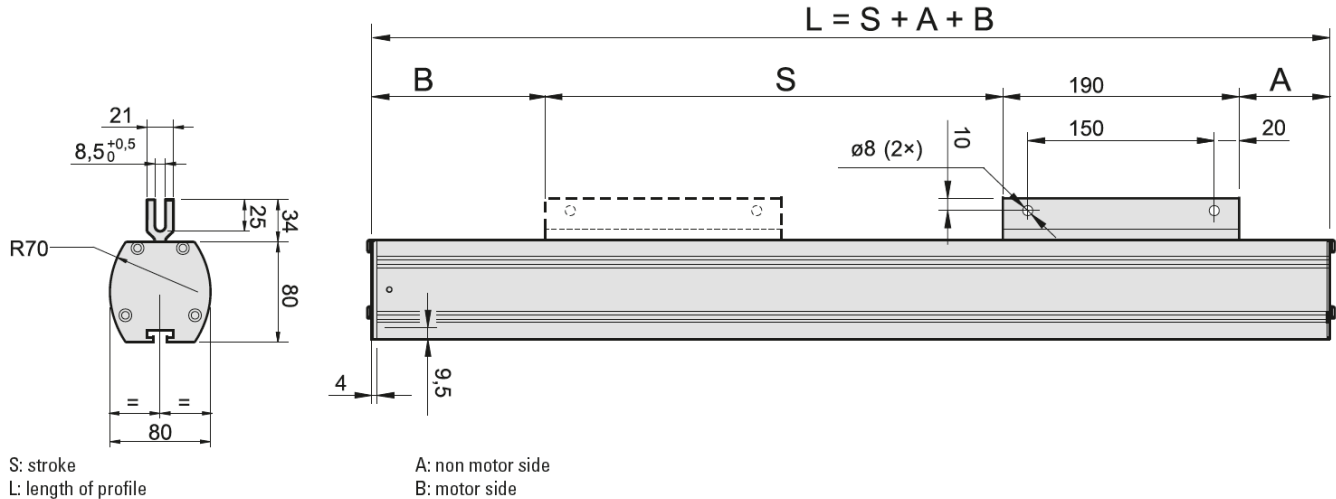
Compatible Controls

Control model	See page
DPDT switch	53
DCG-180	58
AC-247 ELS	56

Rodless Actuator LM80-I

24 Vdc - load up to 2000 N

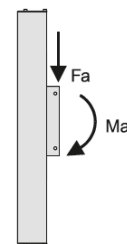
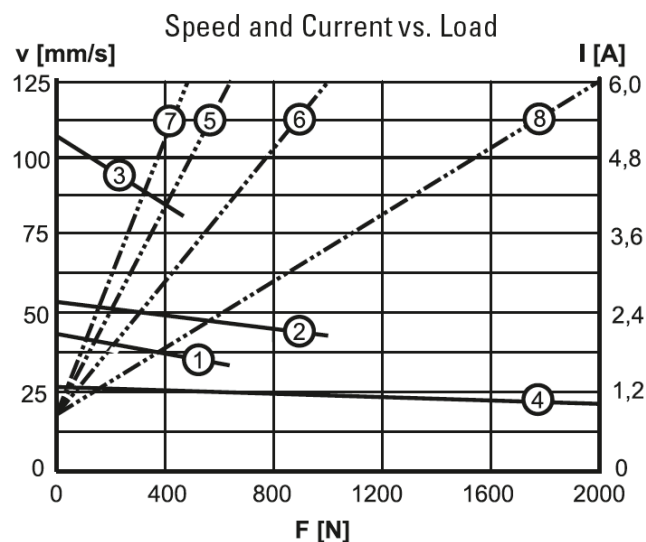
! Note: this unit may only be mounted vertically with the motor down even if drawing shows it horizontally.



Stroke (S)	[mm]	500	600	700	800	900	1000	1100	1200	1300	1400	1500
Dimensions (A) / (B)	[mm]											
DT24-T68M ••• GCV		50,0 / 238,0										
DT24-B61M ••• GCV		53,0 / 287,0										
DT24-B62M ••• GCV		53,0 / 287,0										
DT24-B65M ••• GCV		53,0 / 264,0										
Weight	[kg]											
DT24-T68M ••• GCV		11,1	12,9	14,7	16,5	18,2	20,0	21,8	23,6	25,4	27,2	28,9
DT24-B61M ••• GCV		11,6	13,4	15,2	17,0	18,7	20,5	22,3	24,1	25,9	27,7	29,5
DT24-B62M ••• GCV		11,6	13,4	15,2	17,0	18,7	20,5	22,3	24,1	25,9	27,7	29,5
DT24-B65M ••• GCV		12,0	13,8	15,6	17,6	19,3	21,1	22,9	24,7	26,5	28,2	30,1

Performance Diagrams

Definition of Forces



V: speed I: current F: load

- | | |
|----------------------------|------------------------------|
| 1: speed DT24-T68M ••• GCV | 5: current DT24-T68M ••• GCV |
| 2: speed DT24-B61M ••• GCV | 6: current DT24-B61M ••• GCV |
| 3: speed DT24-B62M ••• GCV | 7: current DT24-B62M ••• GCV |
| 4: speed DT24-B65M ••• GCV | 8: current DT24-B65M ••• GCV |



Solutions by
DANAHER
MOTION

KOLLMORGEN

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Direct Drive Rotary Motors

- ◆ Housed
- ◆ Cartridge style
- ◆ Frameless F series
- ◆ Hollow bore spindle
- ◆ Torque to 1300Nm

AKD Drives

- ◆ 3 to 80 amps continuous
- ◆ 240/1/50 & 415/3/50 AC mains
- ◆ All feedback types in one model
- ◆ Three times peak current
- ◆ Ethernet communication std
- ◆ Small package size



Precision planetary reducers

- ◆ 4 to 15 arc-min backlash
- ◆ In-line and right angle
- ◆ Quick delivery program
- ◆ Sizes 42 to 222 mm square frame
- ◆ Up to 5500Nm peak

AKM Series Motor

- ◆ New high efficiency design
- ◆ Simple and robust construction
- ◆ 7 frames, 40 to 188 mm square
- ◆ Multiple feedback types



- ◆ Ball or lead screw
- ◆ Inline, geared or belt driven
- ◆ Brushless Servo or Stepper motors
- ◆ IP54 or IP65
- ◆ Thrust to 25kN
- ◆ Speed to 1.3m/sec
- ◆ 6 power ranges
- ◆ Metric design

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