

# Lifting Column DMD

12, 24 and 36 Vdc - load up to 1500 lbf

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» Electric Wiring Diagram - see page 49



## Standard Features and Benefits

- Designed for industrial use
- Rugged, robust and strong
- Self supporting column in extruded anodized aluminum
- Telescopic acme or ball screw drive
- High load torque capability
- Overload clutch for mid and end of stroke protection
- T-slot grooves along the entire profile
- Maintenance free

## General Specifications

Parameter	DMD
Screw type	acme or ball
Internally restrained	yes
Manual override	no
Dynamic braking	no
Holding brake acme screw models ball screw models	no, self-locking yes
End of stroke protection	overload clutch
Mid stroke protection	overload clutch
Motor protection	auto reset thermal switch
Motor connection	cable
Motor connector	no
Certificates	CE
Options	potentiometer

## Performance Specifications

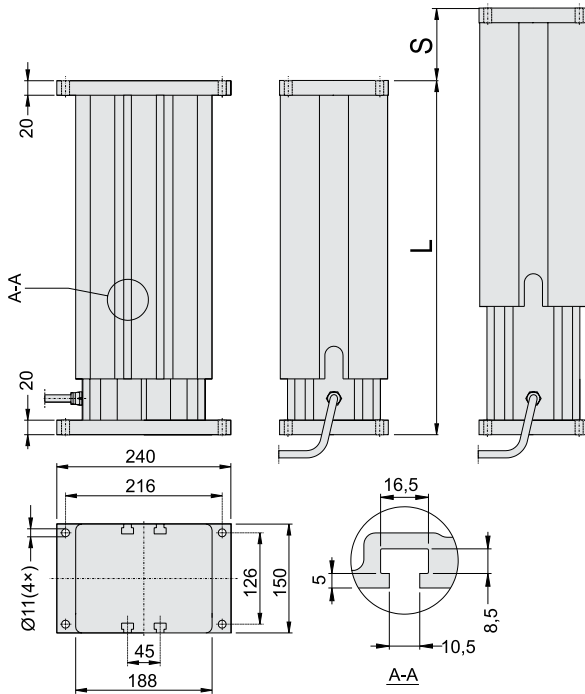
Parameter	DMD
Maximum load, dynamic / static [lbf]	
DMD •• -05A5 (acme screw)	250 / 2550
DMD •• -10A5 (acme screw)	500 / 2550
DMD •• -20A5 (acme screw)	500 / 2550
DMD •• -05B5 (ball screw)	500 / 4050
DMD •• -10B5 (ball screw)	1000 / 4050
DMD •• -20B5 (ball screw)	1000 / 4050
DMD •• -21B5 (ball screw)	1500 / 4050
Maximum load torque, dynamic / static [lbf-in]	
acme screw models	5000 / 5000
ball screw models	6300 / 6300
Speed, at no load / at maximum load [in/sec]	
DMD •• -05A5 (acme screw)	2.12 / 1.26
DMD •• -10A5 (acme screw)	1.18 / 0.71
DMD •• -20A5 (acme screw)	0.59 / 0.47
DMD •• -05B5 (ball screw)	2.40 / 1.46
DMD •• -10B5 (ball screw)	1.18 / 0.75
DMD •• -20B5 (ball screw)	0.59 / 0.47
DMD •• -21B5 (ball screw)	0.59 / 0.43
Available input voltages [Vdc]	12, 24, 36
Standard stroke lengths [in]	4, 6, 8, 10, 12, 14, 16, 18, 20, 24
Operating temperature limits [°F]	-15 – +150
Full load duty cycle @ 77 °F [%]	25
End play, maximum [in]	0.04
Restraining torque [lbf-in]	0
Lead cross section [mm <sup>2</sup> ]	2.5
Cable length [in]	78
Protection class	IP65

## Compatible Controls

Control model	See page
DPDT switch	52
DPDT switch box	53
MCS-2015	54
MCS-2025	57
DCG-190	60

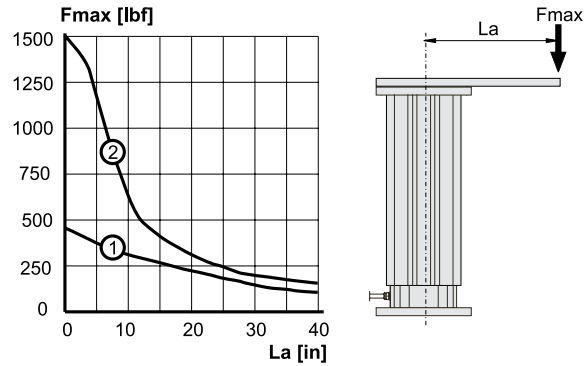
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S: stroke L: retracted length

## Off Center Load Capacity



$F_{max}$ : maximum load operated  $L_a$ : length of lever arm

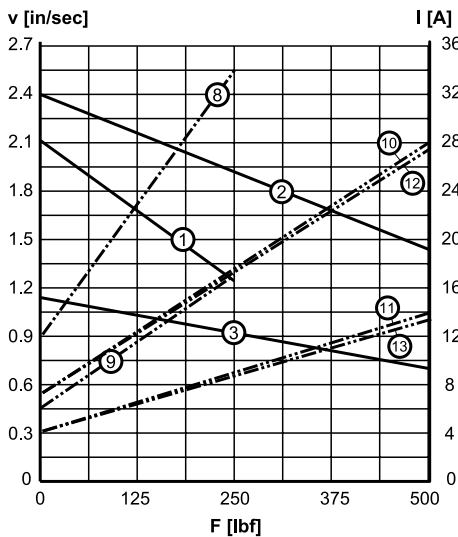
- 1: acme screw models
- 2: ball screw models

! Note: drawing is in mm and according to European standards.

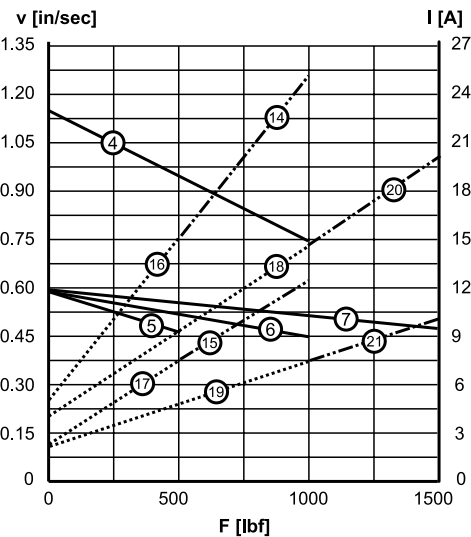
Stroke (S)	[inch]	4	6	8	10	12	14	16	18	20	24
Retracted length (L), acme screw models	[inch]	12.98	14.98	16.98	18.98	20.98	24.94	26.94	28.94	30.94	34.94
Retracted length (L), ball screw models	[inch]	14.55	16.55	18.55	20.55	22.55	26.52	28.52	30.52	32.52	36.52
Add on length for potentiometer	[inch]	2.165	2.165	2.165	2.165	2.165	2.165	2.165	2.165	2.165	2.165
Weight, acme screw models	[lb]	41.3	44.5	47.7	50.9	54.2	60.1	63.3	66.5	69.8	76.3
Weight, ball screw models	[lb]	45.0	48.2	51.5	54.7	58.0	63.9	67.1	70.3	73.6	80.1
Add on weight for potentiometer	[lb]	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87

## Performance Diagrams

Speed and Current vs. Load - Chart 1



Speed and Current vs. Load - Chart 2



V: speed I: current F: load

- 1: speed DMD ••-05A5 - chart 1
- 2: speed DMD ••-05B5 - chart 1
- 3: speed DMD ••-10A5 - chart 1
- 4: speed DMD ••-10B5 - chart 2
- 5: speed DMD ••-20A5 - chart 2
- 6: speed DMD ••-20B5 - chart 2
- 7: speed DMD ••-21B5 - chart 2
- 8: current DMD12-05A5 - chart 1
- 9: current DMD24-05A5 - chart 1
- 10: current DMD12-05B5 - chart 1
- 11: current DMD24-05B5 - chart 1
- 12: current DMD12-10A5 - chart 1
- 13: current DMD24-10A5 - chart 1
- 14: current DMD12-10B5 - chart 2
- 15: current DMD24-10B5 - chart 2
- 16: current DMD12-20A5 - chart 2
- 17: current DMD24-20A5 - chart 2
- 18: current DMD12-20B5 - chart 2
- 19: current DMD24-20B5 - chart 2
- 20: current DMD12-21B5 - chart 2
- 21: current DMD24-21B5 - chart 2

Contact customer service for data on 36 Vdc models.