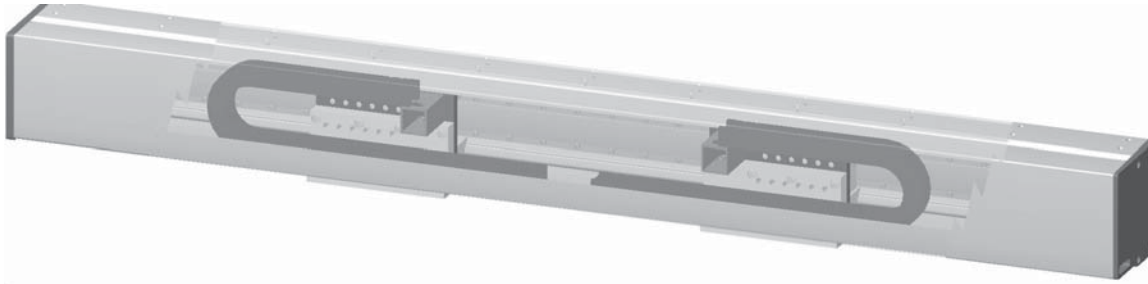


Modular Linear Actuator DLVM 200

Linear Motor Drive



Function:

This unit consists of a rectangular aluminium profile with 2 integrated roller guides. The linear-motor DLM unit is based on the principle of a linear, synchronous AC motor.

The guiding profile is fitted with permanent magnets as stator. The carriage is fitted with the rotor. The magnetic attraction causes a force between carriage and guiding profile also in the absence of current. This force can be used for the initial tension of the bearings. Several carriages can be driven independently on one guiding profile.

Fitting length: As required. Max. length 6,000 mm single/extrusion.

Carriage mounting: T-slots

Unit mounting: T-slots and mounting sets. The linear axis can be combined with any T-slot profile.

Carriage support: In the standard version, the carriage runs on 8 rollers which can be adjusted and serviced at a central servicing position. For longer carriages the number of rollers can be increased. Repeatability $\pm 0,05$ mm. Repeated accuracy max. $\pm 0,05$ bis 4.000 mm, $\pm 0,1$ >4.000 mm.

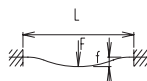


8

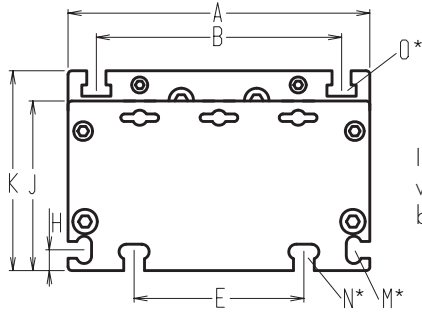
Forces and torques	DLVM 200	
	static	dynamic
F_y (N)	4400	3100
F_x (N)	4900	4400
M_x (Nm)	600	510
M_y (Nm)	560	480
M_z (Nm)	310	275
Traverse force without current		
N		
Speed		
(m/sec) max	8	
Working traverse force F_x for		
permanent (N)	213	
Max. (N) (1 sek.)	429	
Geometrical moments of inertia of aluminium profile		
I_x mm ⁴	6,38x10 ⁶	
I_y mm ⁴	33,5x10 ⁶	
Elastic modulus N/mm ²	70000	

Formula: DLVM

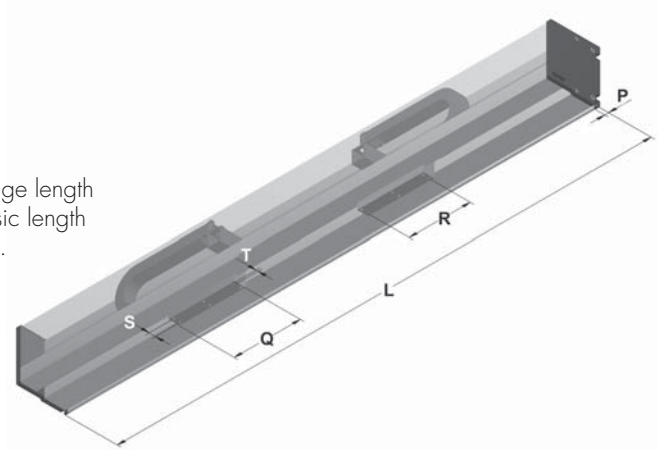
$$f = \frac{F \cdot L^3}{E \cdot I \cdot 192}$$



f = deflection (mm)
 F = load (N)
 L = free length (mm)
 E = elastic modulus 70000 (N/mm²)
 I = second moment of area (mm⁴)



Increasing the carriage length will increase the basic length by the same amount.



*For T-nuts refer to accessory section

Size	Basic length L	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S	T	U	Basic weight	Additional Weight per 100 mm
DLVM 200	560	197	205	140	15	224,5	50,5	42,5	15	15,5	54,5	M8	M10	15	260	240	25	M8	198,5	28,2 kg	2,1 kg



1500

Basic length + stroke = total length

DLVM 200 0 0 0 0 0 0 1 01500

Pos. 1 2 3 4 5 6 7

Sample ordering code:
DLVM200, 930 mm stroke.

