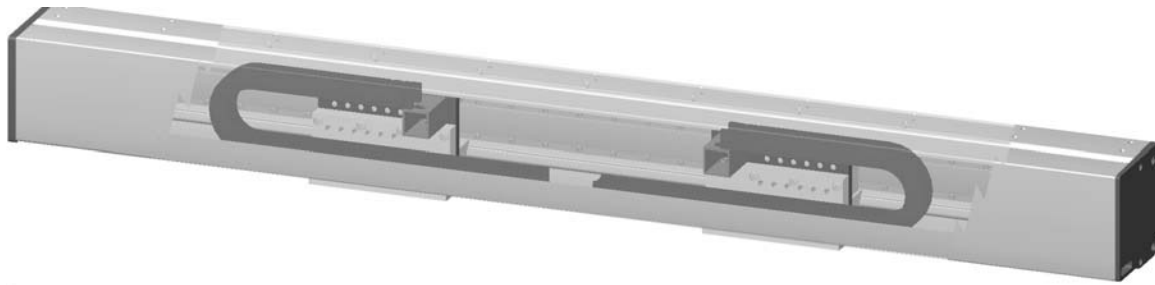


Positioning system DLVM 200

Specifications

Linear motor drive



Function:

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

The guiding profile is fitted with permanent magnets as stator (secondary part). The carriage is fitted with the actuator (primary part). 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 (primary parts) can be driven independently on one guiding profile.

Fitting position: As required. Max. length 6.000 mm without joints.

Carriage mounting: By T-slots.

Unit mounting: By 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 ± 0,05 mm. Repeated accuracy max. ± 0,05 bis 4.000 mm, ± 0,1 >4.000 mm.

9.1



Forces and torques	DLVM 200	
	static	dynamic
F_x (N)	4400	3100
F_z (N)	4900	4400
M_x (Nm)	600	510
M_y (Nm)	560	480
M_z (Nm)	310	275
All forces and torques related to the following:		
existing values	$\frac{F_y}{F_{y_{dyn}}} + \frac{F_z}{F_{z_{dyn}}} + \frac{M_x}{M_{x_{dyn}}} + \frac{M_y}{M_{y_{dyn}}} + \frac{M_z}{M_{z_{dyn}}} \leq 1$	
values of table		
Moving force without current		
N	7	11
Speed		
(m/sec) max	8	
Thrust 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	

For life-time calculation of rollers use our CD-ROM or homepage!

Formula: DLVM

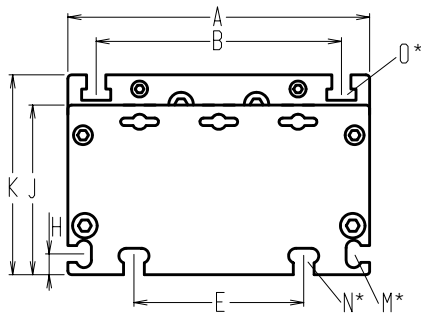
$$f = \frac{F \cdot L^3}{E \cdot I \cdot 192}$$

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

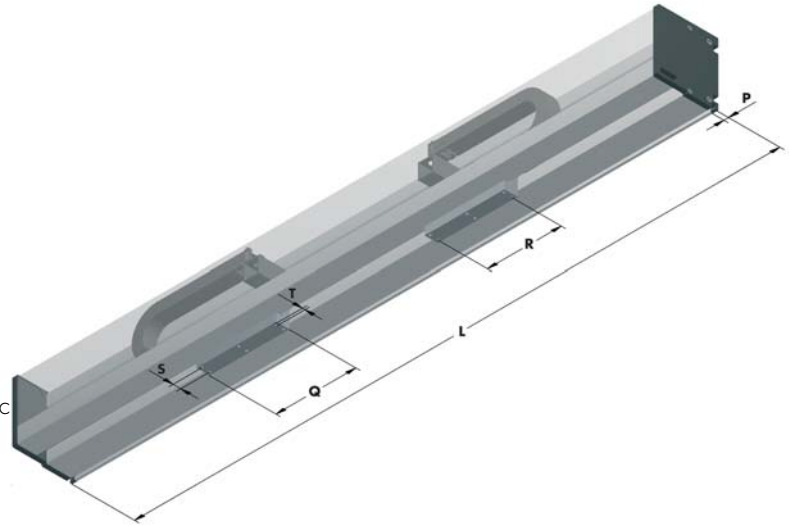


Positioning system DLVM 200

Dimensions (mm)



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



*For slide-nuts refer to chapter 2.2 page 2

Size □	Basic length L	A	B	C	D	E	F	G	H	J	K	M for	N for	P	Q	R	S	T for	U	Basic weight	Weight per 100 mm
DLVM 200	560	197	205	140	15	224,5	50,5	42,5	15	15,5	54,5	M 8	M 10	15	260	240	25	M 8	198,5	28,2 kg	2,1 kg

9.1



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, 940 mm stroke.

