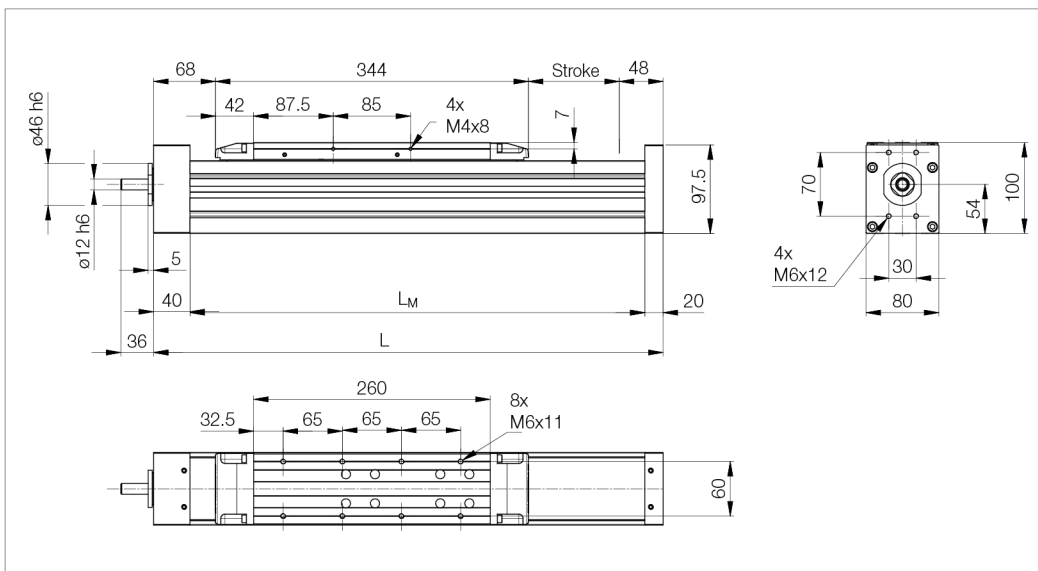


Linear module LM4...BR...N... with ball screw drive



Nominal size	Dimensions				
Designation	L [mm]	L _M [mm]	Length ball screw [mm]	Length steel strip [mm]	Weight [kg]
LM4...BR...N	Stroke + 460	L – 60	L + 30	L – 22	7.8 kg + 0.95 kg/100 mm stroke

LM Size	BSD d x p [mm]	Axial load rates		Positioning accuracy [μm/mm]	Repeating accuracy [mm]	Acceleration a _{max} [m/s ²]	Axial play		Idle torque [Nm]
		C ₀ [N]	C _{dyn} [N]				Type	Axial play [mm]	
LM4...R...	20 x 5	5705	4912	52/300	< 0.03 ¹⁾	10.0	R	< 0.02	0.050
					< 0.01 ¹⁾		V	—	0.120
	20 x 20	5705	4912	52/300	< 0.03 ¹⁾	10.0	R	< 0.02	0.200
					< 0.01 ¹⁾		V	—	0.400

d x p = screw diameter x thread pitch

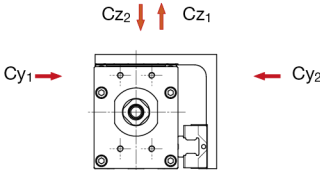
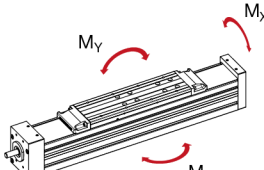
¹⁾ backlash not factored in

R = reduced axial play

V = preloaded

LM Type	Movement speed		Moments of inertia		Hub max. [mm]	Steel strip	Feed and friction force F _V [N]	Moved mass m _b [kg]
	Guide v _{max} [m/s]	Drive v _{max} [m/s]	I _y [cm ⁴]	I _z [cm ⁴]				
LM4...R...N	5.0	2)	106.5	152.7	3000	ohne	25.00	2.500
						mit	35.00	

2) for ball screw drive, dependent on rotational speed characteristics, spindle length and relevant critical rotational speed.

Load ratings					Torques					
										
Linear modul Type	Maximum permissible load [kN]				Maximum permissible torque [Nm]					
	static		dynamic		static			dynamic		
	Cy _{0,1,2}	Cz _{0,1,2}	Cy _{1,2}	Cz _{1,2}	M _{x0}	M _{y0}	M _{z0}	M _x	M _y	M _z
LM4...R...N	59.9	59.9	34.2	34.2	646	1573	1573	400	1446	1446

The determination of dynamic load ratings and torques is based on a 50,000 m stroke. If comparative values must be calculated for a 100,000 m stroke, the values for M_x, M_y, M_z and C must be divided by the factor 1.26.

With a view to serviceable life, loads of less than 20% of the dynamic load ratings have generally proved to be expedient.

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