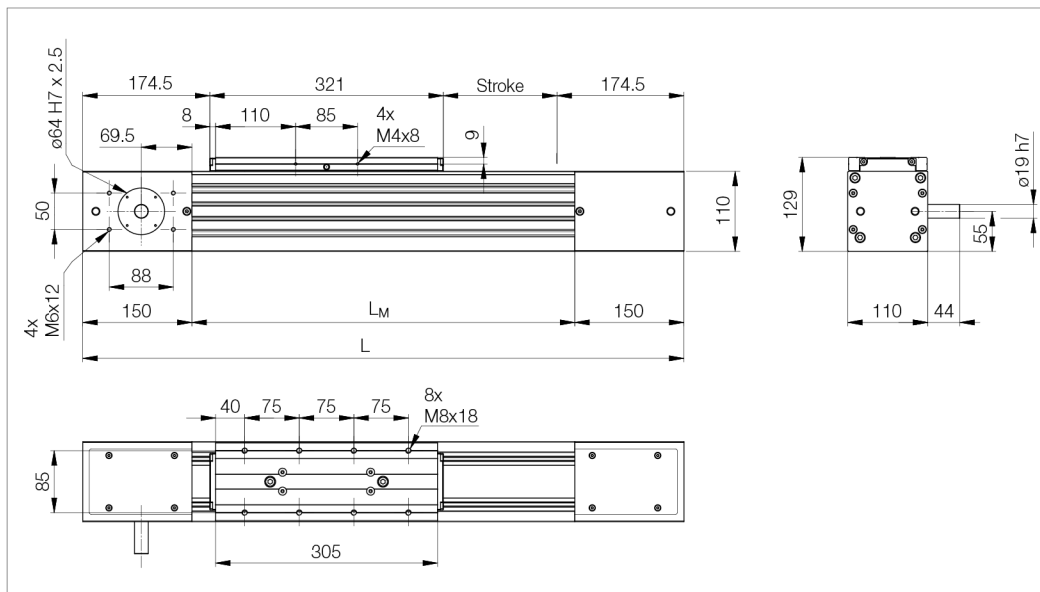


Linear module LM5...NZ...N with toothed belt drive



Nominal size	Dimensions			
Designation	L [mm]	L _M [mm]	Belt length [mm]	Weight [kg]
LM5...NZ...N	Stroke + 670	L - 300	2 x Stroke + 1144	18.60 kg + 1.48 kg/100 mm Stroke

Variants/dimensions with protective strip (LM5...BZ...N) see catalogue

LM	Toothed belt drive				Axial load F [N]	Positioning accuracy [μ/mm]	Repeating accuracy .../1000 mm [mm]	Acceleration a _{max} [m/s ²]
	Type/division	Pinion d ₃ x l _p [mm]	Stroke/rev [mm]	Tension ³⁾ [mm/m]				
LM5...Z...	STD8M	94.22 x 60	296	0.059	... ¹⁾	200/1000 ²⁾	< 0.20 ²⁾	50.0 ¹⁾

d₃ x l_p = pinion diameter x pinion width

¹⁾ depending on speed and load

²⁾ backlash not factored in

³⁾ belt tension/metre [mm/m] per 100 N tensile force

LM	Movement speed		Moments of inertia Z		Stroke 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]				
LM5...Z...N	5.0	⁴⁾	451.9	623.9	7530	without with	30.00 40.00	4.100 4.140

⁴⁾ for toothed belt drive, dependent on load and speed and permissible movement speed of the linear guide

Load ratings

Torques

Linear modul Type	Maximum permissible load [kN]				Maximum permissible torque [Nm]					
	static		dynamic		static		dynamic			
	C _{y0,1,2}	C _{z0,1,2}	C _{y1,2}	C _{z1,2}	M _{x0}	M _{y0}	M _{z0}	M _x	M _y	M _z
LM5...Z...N	85.0	85.0	49.6	49.6	1080	6115	6115	684	5170	5170

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.

CAD data

Enquiry (technical/quote)

Download data sheet (PDF)

Download catalogue (PDF)