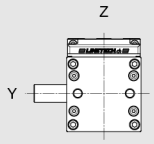
Linear module LM4...NZ...N with toothed belt drive

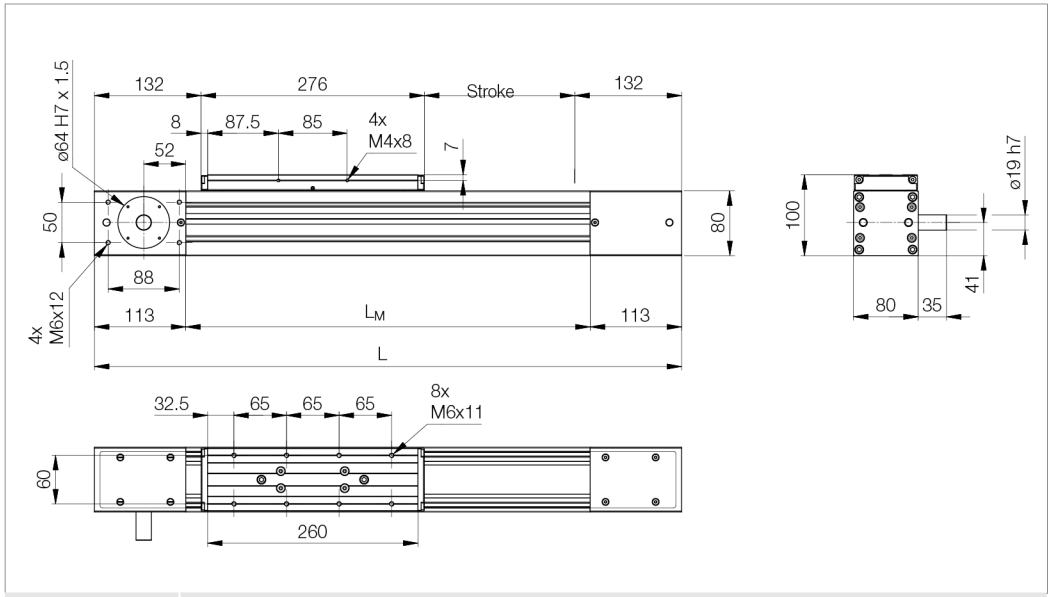
LM Size	Toothed belt drive Type/division	Pinion $d_3 \times l_R$ [mm]	Stroke/rev [mm]	Tension [3] [mm/m]	Axial load F [N]	Positioning accuracy [µ/mm]	Repeating accuracy .../1000 mm [mm]	Acceleration a_{max} [m/s²]
LM4...Z...	HTD5M	65.25 x 45	205	0.105	... [1]	200/1000 [2]	< 0.20 [2]	50.0 [1]

$d_3 \times l_R$ = 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 Type	Movement speed Guide v_{max} [m/s]	 Drive v_{max} [m/s]	Moments of inertia I_Y [cm⁴]	 I_Z [cm⁴]	Stroke max. [mm]	Steel strip	Feed and friction force F_V [N]	Moved mass m_b [kg]
LM4...Z...N	5.0	[4]	131.2	197.8	7580	without	25.00	2.150
						with	35.00	2.165



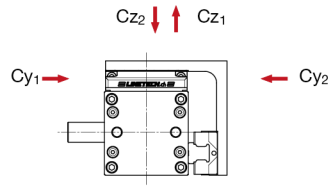
4) for toothed belt drive, dependent on load and speed and permissible movement speed of the linear guide



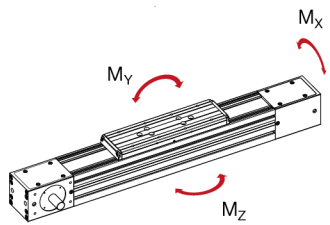
Nominal size Designation	Dimensions L [mm]	 L_M [mm]	 Belt length [mm]	 Weight [kg]
LM4...NZ...N	Stroke + 540	L – 226	2 x Stroke + 900	8.40 kg + 0.93 kg/100 mm Stroke

Variants/dimensions with protective strip (LM4...BZ...N) see catalogue

Load ratings



Torques



Linear modul Type	Maximum permissible load [kN] static $C_{y0\,1,2}$	 $C_{z0\,1,2}$	 dynamic $C_{y1,2}$	 $C_{z1,2}$	Maximum permissible torque [Nm] static M_{x0}	 M_{y0}	 M_{z0}	 dynamic M_x	 M_y	 M_z
LM4...Z...N	59.9	59.9	34.2	34.2	646	2484	2484	400	2130	2130

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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