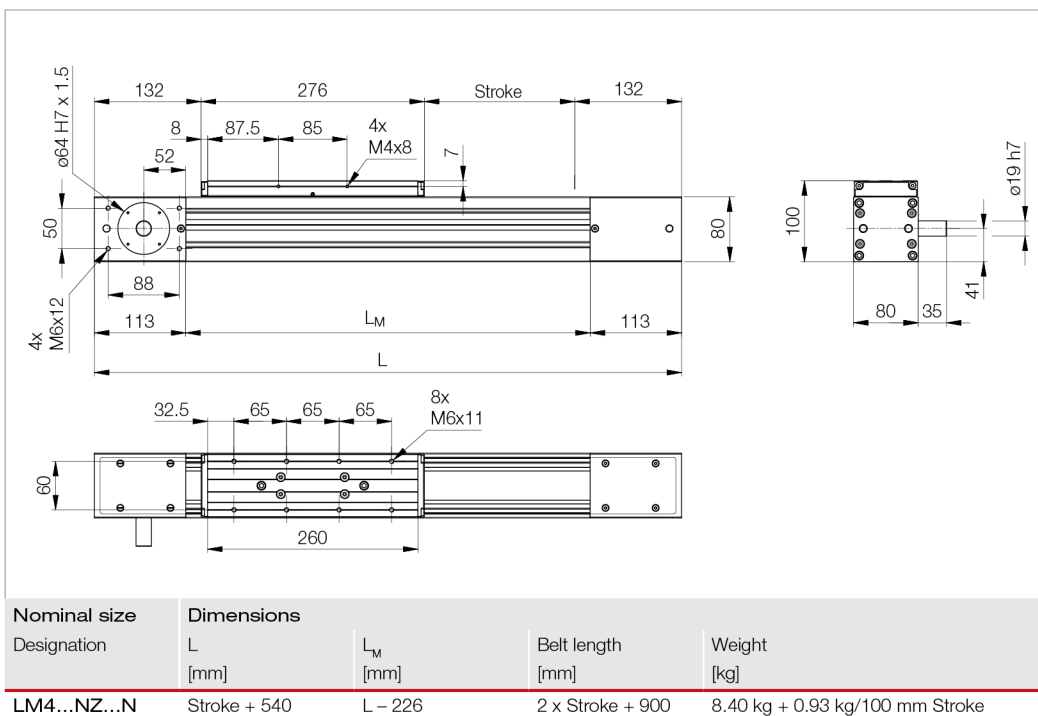


≡ Linear module LM4...NZ...N XL with toothed belt drive



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

XL Please contact LINE TECH for Consulting & Engineering →

Enquiry (technical/quote)

LM	Toothed belt drive				Axial load F [N]	Positioning accuracy [μm/mm]	Repeating accuracy .../1000 mm [mm]	Acceleration a _{max} [m/s ²]
	Type/division	Pinion d ₃ x l _R [mm]	Stroke/rev [mm]	Tension ³⁾ [mm/m]				
LM4...Z...	HTD5M	65.25 x 45	205	0.105	... ¹⁾	200/1000 ²⁾	< 0.20 ²⁾	50.0 ¹⁾

d₃ x 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	Movement speed		Moments of inertia		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]				
LM4...Z...N	5.0	4)	131.2	197.8	XL: 13880	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

Linear modul	Maximum permissible load [kN]				Maximum permissible torque [Nm]					
	static C _{y0,1,2}	dynamic C _{y1,2}	static C _{z0,1,2}	dynamic C _{z1,2}	static M _{x0}	static M _{y0}	static M _{z0}	dynamic M _x	dynamic M _y	dynamic 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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