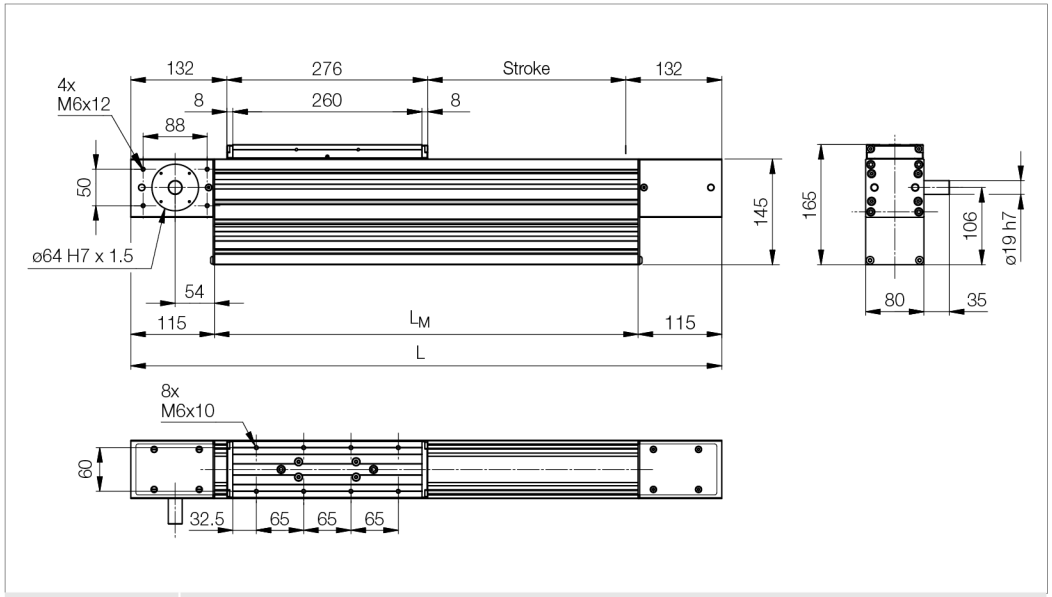
Bridge module BM4...NZ...N with toothed belt drive



Nominal size	Dimensions			
Designation	L [mm]	L_M [mm]	Belt length [mm]	Weight [kg]
BM4...NZ...N	Stroke + 540	L – 230	2 x Stroke + 900	9.70 kg + 1.36 kg/100 mm Stroke

Variants/dimensions with protective strip (BM4...BZ...N) see catalogue

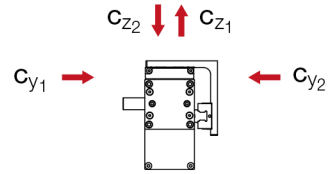
BM	Toothed belt drive				Axial load	Positioning accuracy	Repeating accuracy	Acceler-ation
Size	Type/division	Pinion $d_3 \times l_R$ [mm]	Stroke/rev [mm]	Tension [3] [mm/m]	F [N]	[µ/mm]	.../1000 mm [mm]	a_{max} [m/s²]
BM4...Z...	HTD5M	65.25 x 45	205	0.105	... [1]	200/1000 [2]	< 0.20 [2]	50.0 [1]

$d_3 \times l_R$ = 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

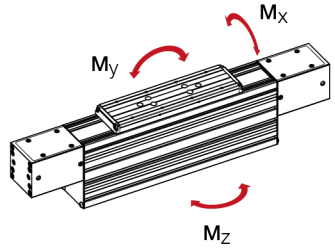
BM	Movement speed		Moments of inertia		Stroke max.	Steel strip	Feed and friction force	Moved mass
	Guide	Drive						
Type	v_{max} [m/s]	v_{max} [m/s]	I_Y [cm⁴]	I_Z [cm⁴]	[mm]		F_V [N]	m_b [kg]
BM4...Z...N	5.0	[4]	708	332	6180	without	25.00	2.150
						with	35.00	2.170

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

Load ratings



Torques



Bridge module	Maximum permissible load [kN]				Maximum permissible torque [Nm]					
Type	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
BM4...Z...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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