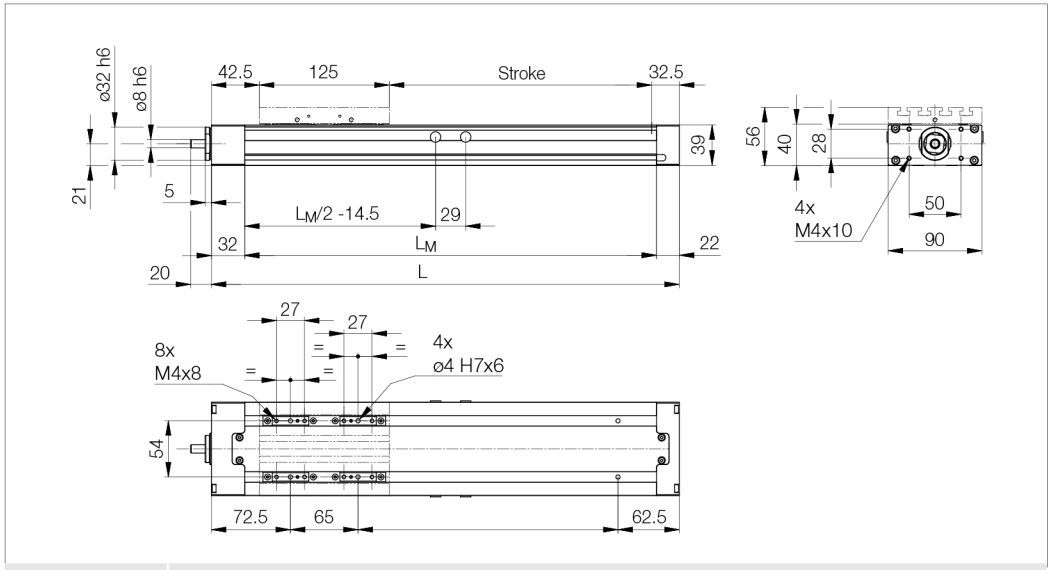
Compact unit KE1.4...R... with 2 carriages and ball screw drive



Nominal size	Dimensions				
Designation	L	L_M	Length ball screw	Length protective ribbon	Weight
	[mm]	[mm]	[mm]	[mm]	[kg]
KE1.4...R...	Stroke + 200	L – 54	L + 12	2 x Stroke + 285	2.35 kg + 0.410 kg/100 mm Stroke

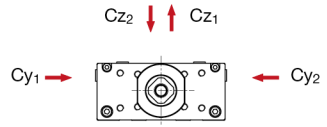
KE	BSD	Axial load rates		Positioning accuracy	Repeating accuracy	Acceleration	Axial play		Idle torque
Size	d x p	C_0	C_{dyn}			a_{max}	Type	Axial play	
	[mm]	[N]	[N]	[µm/mm]	[mm]	[m/s²]		[mm]	[Nm]
KE1...R...	12 x 5	3333	3099	52/300	< 0.03 [1]	10.0	R	< 0.02	0.020
					< 0.01 [1]		V	—	0.090
	12 x 10	3333	3099	52/300	< 0.03 [1]	10.0	R	< 0.02	0.045
					< 0.01 [1]		V	—	0.180

d x p = screw diameter x thread pitch
[1] backlash not factored in
[2] also available with 23 µm / 300 mm
V = preloaded

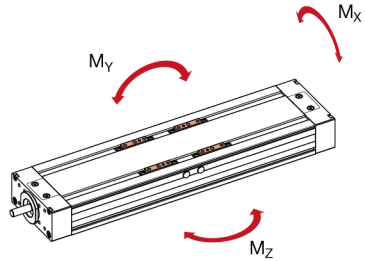
KE...R...	Movement speed		Moments of inertia		Stroke max.	Protective ribbons	Feed and friction force	Moved mass
	Guide	Drive	Z / Y / Y / Z					
Type	v_{max}	v_{max}	I_Y	I_Z			F_V	m_b
	[m/s]	[m/s]	[cm⁴]	[cm⁴]	[mm]		[N]	[kg]
KE1.4...R...	3.0	[2]	11.5	95.5	1250	without	12.00	0.680
						with	16.00	

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

Load ratings



Torques



Compact unit	Maximum permissible load [kN]				Maximum permissible torque [Nm]					
Type	static		dynamic		static			dynamic		
	$C_{y_{0\,1,2}}$	$C_{z_{0\,1,2}}$	$C_{y_{1,2}}$	$C_{z_{1,2}}$	M_{x_0}	M_{y_0}	M_{z_0}	M_x	M_y	M_z
KE1.4...R...	22.5	22.5	13.0	13.0	550	330	330	316	210	210

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)

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