

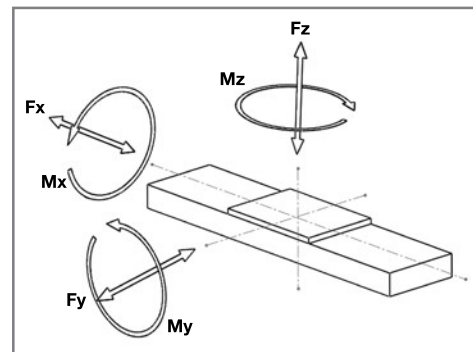


MLL 5 linear motor stages

Technical Description



Repeatability of measuring system: $\pm 30 \mu\text{m}$
 Repeatability linear unit: $\pm 100 \mu\text{m}$
 Maximum speed: 3 m/s
 Maximum acceleration: 127 m/s²
 Maximum Length without joints: up to 3.600 mm
 Operating voltage: 600Vdc
 Max. Operating voltage: 900Vdc
 For code descriptions please go to the "Order Code" on page 33



Mechanical specifications

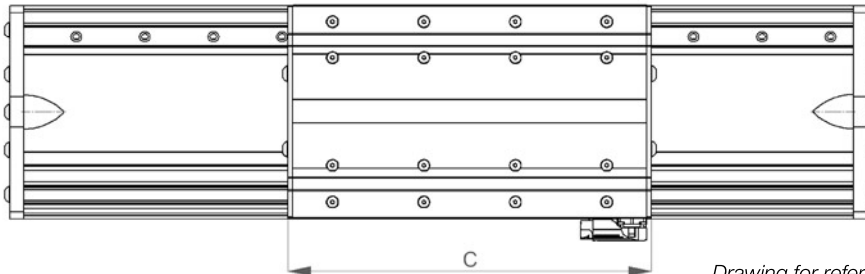
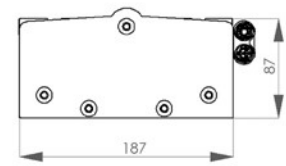
Linear motor stage		MLL 50400	MLL 50800	MLL 51000	MLL 51200
Carriage typ		S	S	S	S
Linear motor features					
Maximum speed ¹⁾	m/s			3	
Continuous force aircooled ²⁾	N	200	400	500	600
Peak force	N	400	800	1000	1200
Nominal current	A	2,5	5,0	5,2	7,5
Peak current	A	5,0	10,0	10,4	15,0
Guidance features					
Fy	N	2000	2000	2000	3000
Fz	N	1000	1000	1000	1500
Mx	Nm	300	300	300	450
My	Nm	400	450	500	600
Mz	Nm	400	450	500	600
For the sum of all forces and moments:	$\frac{F_{ye}}{F_y} + \frac{F_{ze}}{F_z} + \frac{M_{xe}}{M_x} + \frac{M_{ye}}{M_y} + \frac{M_{ze}}{M_z} < 1$				(Xxe = calculated value) (Xx = max. catalogue value)
Structure profile features					
Geometrical moments of inertia Lx	mm ⁴			5,60x10 ⁵	
Geometrical moments of inertia Ly	mm ⁴			143,63x10 ⁵	
Elastic module	N/mm ²			70000	
Weight					
Weight of carriage	kg	4,7	6,8	7,9	9,4
Weight of 100 mm	kg			1,65	

¹⁾ for a lifetime > 30.000 Km

²⁾ depending on the application and ambient temperature



Dimensions MLL 5



Drawing for reference only. Please ask for ready 3D files.

Choice of stroke

Linear motor stage	MLL 50400	MLL 50800	MLL 51000	MLL 51200
Carriage typ	S	S	S	S
Carriage length C, mm	220	318	364	410

Length, mm	Code	Stroke ⁽¹⁾			
462	00462	148	50	-	-
558	00558	244	146	100	54
654	00654	340	242	196	150
750	00750	436	338	292	246
846	00846	532	434	388	342
942	00942	628	530	484	438
1038	01038	724	626	580	534
1134	01134	820	722	676	630
1230	01230	916	818	772	726
1326	01326	1012	914	868	822
1422	01422	1108	1010	964	918
1518	01518	1204	1106	1060	1014
1614	01614	1300	1202	1156	1110
1710	01710	1396	1298	1252	1206
1806	01806	1492	1394	1346	1302
1902	01902	1588	1490	1444	1398
1998	01998	1684	1586	1540	1494
2094	02094	1780	1682	1636	1590
2190	02190	1876	1778	1732	1686
2286	02286	1972	1874	1828	1782
2382	02382	2068	1970	1924	1878
2478	02478	2164	2066	2020	1974
2574	02574	2260	2162	2116	2070
2670	02670	2356	2258	2212	2166
2766	02766	2452	2354	2308	2262
2862	02862	2548	2450	2404	2358
2958	02958	2644	2546	2500	2454
3054	03054	2740	2642	2596	2550
3150	03150	2836	2738	2692	2646
3246	03246	2932	2834	2788	2742
3342	03342	3028	2930	2884	2838
3438	03438	3124	3026	2980	2934
3534	03534	3220	3122	3076	3030

¹⁾ Other stroke lengths are available under request