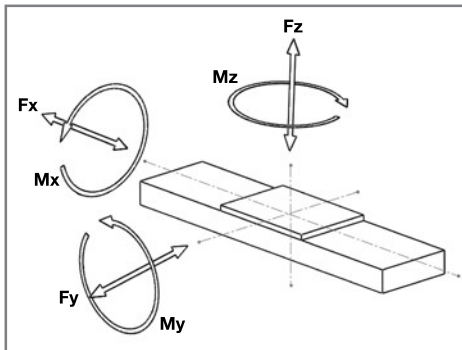




MLZ 2 linear motor stages

Technical Description



Repeatability of measuring system: $\pm 1 \mu\text{m}$
 Repeatability linear unit: $\pm 5 \mu\text{m}$
 Maximum speed: 9 m/s
 Maximum acceleration: 203 m/s²
 Maximum Length without joints: up to 286 mm
 Operating voltage: 600Vdc
 Max. Operating voltage: 900Vdc
 For code descriptions please go to the "Order Code" on page 31



Mechanical specifications

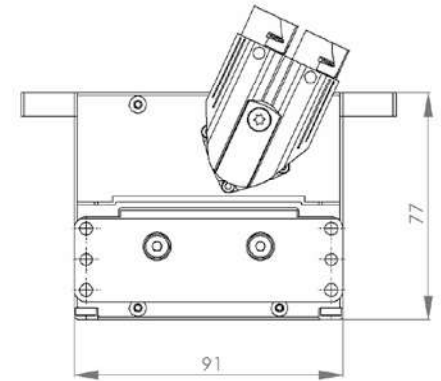
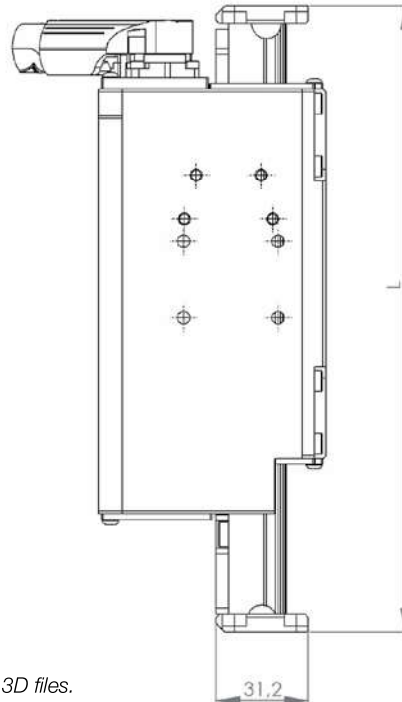
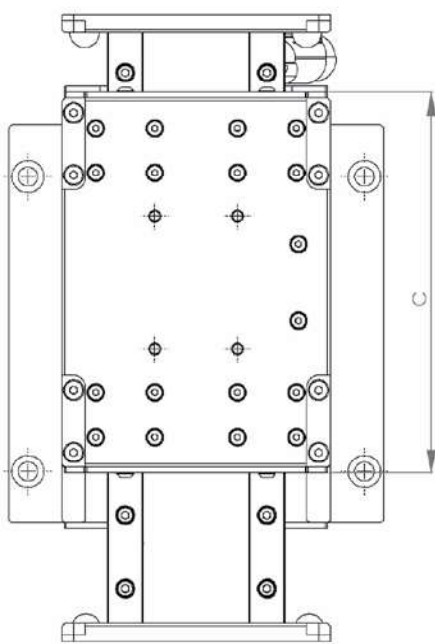
Linear motor stage		MLZ 20105	MLZ 20210
Carriage typ		R	S
Linear motor features			
Maximum speed ¹⁾	m/s	5	5
Continuous force aircooled ²⁾	N	55	105
Peak force F _{xp}	N	105	210
Nominal current	A	1,5	3,0
Peak current	A	3,1	6,2
Guidance features			
F _y	N	300	300
F _z	N	150	150
M _x	Nm	95	95
M _y	Nm	160	160
M _z	Nm	160	160
For the sum of all forces and moments:	$\frac{F_{ye}}{F_y} + \frac{F_{ze}}{F_z} + \frac{M_{xe}}{M_x} + \frac{M_{ye}}{M_y} + \frac{M_{ze}}{M_z} < 1$	(X _{xe} = calculated value) (X _x = max. catalogue value)	
Structure profile features			
Geometrical moments of inertia L _x	mm ⁴	0,55x10 ⁴	
Geometrical moments of inertia L _y	mm ⁴	16,27x10 ⁴	
Elastic module	N/mm ²	70000	

¹⁾ for a lifetime > 30.000 Km

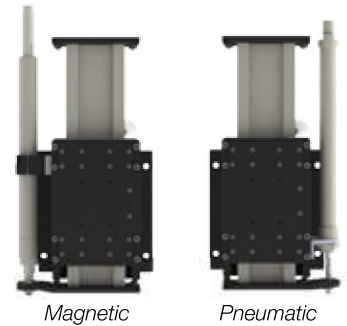
²⁾ depending on the application and ambient temperature



Dimensions MLZ 2



Weight Compensation



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

Choice of stroke

Linear motor stage		MLZ 20105R / MLZ 20210S					
Length	mm	214	262	310	358	406	454
Stroke ²⁾	mm	46	94	142	190	238	286
Carriage length, C	mm	156					

Weight

Carriage weight	kg	2,5					
Runner Weight	kg	1,03	1,27	1,50	1,73	1,96	2,19
Total weight	kg	3,53	3,77	4	4,23	4,46	4,69
Pneumatic weight compensation	kg	0,2	0,2	-	-	-	-
Magnetic weight compensation 03	kg	0,08	0,18	0,29	0,29	-	-
Magnetic weight compensation 04, 05, 06	kg	0,44	0,88	1,32	1,32	1,75	1,75

Weight compensation

Pneumatic	Typ	DPN16130	DPN16130	-	-	-	-
Maximum Force	N	50	50	-	-	-	-
Order Code		01	01	-	-	-	-
Magnetic	Typ	D22050	D22130	D22210	D22210	-	-
Maximum Force	N	12	9	7	3	-	-
Order Code		03	03	03	03	-	-
Magnetic	Typ	D40050	D40130	D40200	D40200	D40275	D40275
Maximum Force	N	30	27	25	22	20	17
Order Code		04	04	04	04	04	04 ²⁾
Magnetic	Typ	D50050	D50130	D50200	D50200	D50275	D50275
Maximum Force	N	40	37	35	32	30	27
Order Code		05	05	05	05	05	05 ²⁾
Magnetic	Typ	D60050	D60130	D60200	D60200	D60275	D60275
Maximum Force	N	50	47	45	42	40	37
Order Code		06	06	06	06	06	06 ²⁾

¹⁾ Other stroke lengths are available under request

²⁾ Stroke length of the compensator is limited to 275 mm