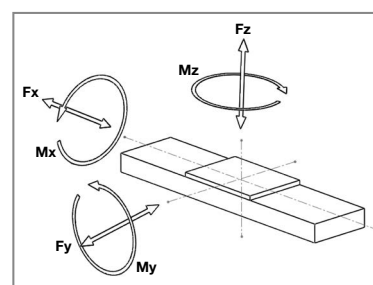


MLS Z5 Linear motor stages

Technical description

Repeatability of measuring system: $\pm 0,5 \mu\text{m}$
 Repeatability of linear unit: $\pm 5 \mu\text{m}$
 Maximum length without joints: up to 824 mm
 Operating voltage: 600 Vdc, max. 900 Vdc
 Maximum speed: 9m/s
 Maximum acceleration: 190m/s^2



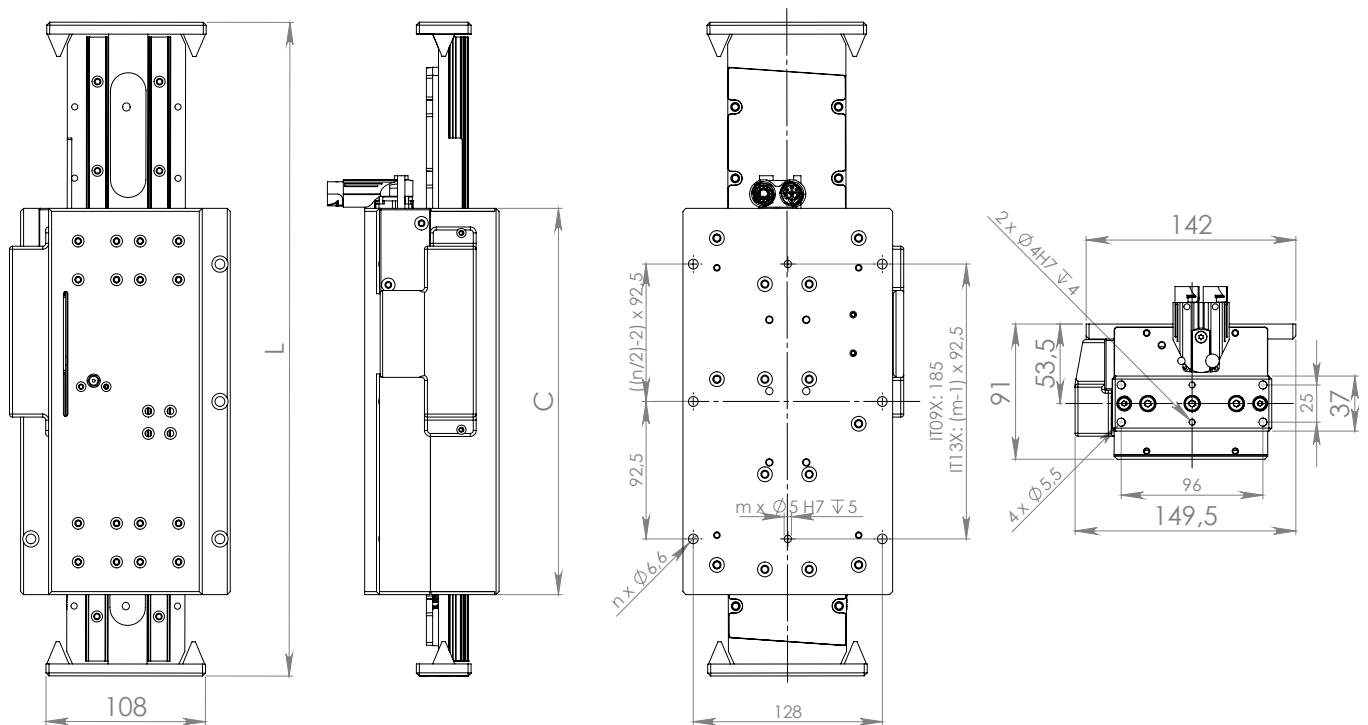
Mechanical specifications

		MLSZ5-IT09X	MLSZ5-IT13X
Carriage model		900	1350
C - Carriage length (mm)	mm	260	352
Linear motor			
Maximum speed ¹⁾	m/s	3	3
Continuous force aircooled ²⁾	N	400	600
Peak force	N	900	1350
Nominal current	A	4,5	6,8
Peak current	A	13,1	19,6
Guidance features (max.)			
Fy	N	2250	2250
Fz	N	1500	1500
Mx	Nm	100	100
My	Nm	720	1180
Mz	Nm	720	1180
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	$3,15 \times 10^3$	$3,15 \times 10^3$
Geometrical moments of inertia Ly	mm ⁴	26×10^4	26×10^4
Elastic module	N/mm ²	70000	70000
Weight			
Weight of carriage	kg	6,1	8,3
Weight of 100mm	kg	0,8	0,8

¹⁾ For a lifetime >30000 km

²⁾ Depending on the application and ambient temperature

Technical description MLS Z5



Drawing available under request.

Available strokes

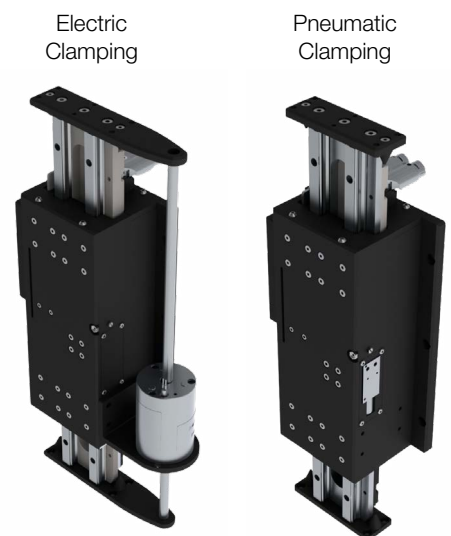
Length, L (mm)	Stroke (mm)	
Linear motor stage	MLSZ5-IT09X	MLSZ5-IT13X
344	38	-
440	134	42
536	230	138
632	326	234
728	422	330
824	518	426
920	614	522
1016	710	618

Mounting interface

Linear motor stage	MLSZ5-IT09X	MLSZ5-IT13X
n - Quantity	6	8
m - Fitting	2	4

Clamping

Clamping	Kg	Kg/100mm
Pneumatic Clamping (400 N)	0,3	-
Electric Clamping 1 (500 N)	1,75	0,51



MLS Z5 Connector options

■ Angled connectors $\pm 90^\circ$ YTEC (00)



■ Side connector M23 (01)



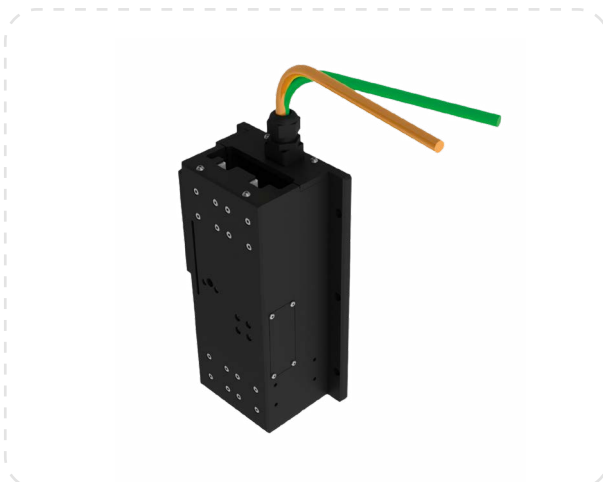
■ Side connectors M23 90° (02)



■ Cable output with connector M23 (04)



■ Cable output without connectors (05)



■ Cable output with connectors YTEC (06)



MLS Z5 Order code

Axis model

MLS Z5 - Linear unit with moving magnet.

MLS Z5 - [] [] [] [] [] - IT [] [] [] [] - [] [] [] [] [] - [] [] [] [] [] - T [] [] [] [] [] - A1S - 00 [] - S - [] - 00 - [] [] [] []

Length (mm) ⁵⁾

Motor / Carriage model

Peak force, N (aircooled) ¹⁾:

09 - 900N

13 - 1350N

Motor winding:

N - Standard motor

H - High-speed motor

Encoder

Technology:

- 0 - Inductive incremental
- 1 - Optic incremental
- 2 - Magnetic incremental
- 3 - Inductive absolute
- 4 - Optic absolute
- 5 - Magnetic absolute

Supplier ²⁾

Protokoll ⁴⁾:

* Inkrementell:

0 - 1 Vpp

4 - TTL

* Absolut:

E - Endat 2.2

B - Biss/C

D - Drivecliq

F - Fanuc

H - Hiperface

L - DSL

M - Mitsubishi

P - Panasonic

S - SSI

Measurement system ²⁾:

4C - 40 µm

1U - 1 µm

2M - 2 mm

2H - 0,25 µm

1H - 0,1 µm

1S - 0,1 µm + Safety function

1Y - 1 µm + Safety function

Lubrication

Grease type:

S - Standard

C - Clean room

F - Food grade

L - Low temperature

Upgrades

Version:

S - Standard

Screws:

S - Standard

I - Stainless steel

Clamping

F15 - Pneumatic Clamping

E20 - Electric Clamping 550N

E40 - Electric Clamping 1300N

Connectors

Typ:

00 - Angled connectors ± 90° YTEC

01 - Side connector M23

02 - Side connectors M23 90°

04 - Cable output with connector M23

05 - Cable output without connectors

06 - Cable output with connectors YTEC

¹⁾ Depending on the application and ambient temperature

²⁾ Defined by previous selections

⁴⁾ On request

⁵⁾ Length on page 29