

MICOS

MOTION CONTROL & OPTICS **USA**

[Terms](#) | [Sitemap](#) | [About us](#) | [Contact](#) | [Catalog](#) | [Shows](#) | [News](#) | [Offices](#) | [Partners](#) | [Press Center](#) | [Support](#) | [Team](#) | [Home](#)

MICOS USA • 15375 BARRANCA PARKWAY • STE G101 • IRVINE • CA 92618 • PHONE 949 480 0538 • FAX 949 480 0538

Page

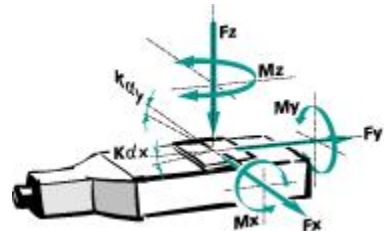
◀ 4.008 ▶ **Linear Motor Stage LMS-110**

Direct Drives



Key features

- Linear motor
- Travel range up to 155 mm
- Maximum speed 200 mm/sec
- Load capacity 5 kg
- Bi-directional repeatability +/- 0.2 μm
- Linear recirculating ball system
- Special, tempered Aluminium
- Limit switches integrated
- Module combination



FACTS

Load Characteristics	Fx (N)	Fy (N) (Peak)	Fy (N) (Con.)	Fz (N)	Mx (Nm)	My (Nm)	Mz (Nm)	kax ($\mu\text{rad/Nm}$)	kay ($\mu\text{rad/Nm}$)
LM-005	25	20	6	50	30	60	33	100	70

DESCRIPTION

Linear Stages of the structural series **LMS-110**, LMS-180 and LMS-300 are mainly employed for modern electronic production and laser application. Combined with directly driven Rotation Stages of MICOS high-dynamic precise positioning systems can be configured resulting in an efficient production. Linear Stages LMS-110 are driven by linear motors without iron. They are controlled by closed loop modus. The linear measuring system with very high

LMS-110 26 & 52 mm

accuracy is installed between the guides. Especially significant is a very quiet and dynamic smooth movement. All Linear Stages of the structural series LMS are equipped with inductive travel-limit switch and protection against damage. Note: Linear Stage LS-110 is similar to LMS-110 (similar design) but LS-110 is equipped with recirculating ball screw (no linear motor) and DC,- stepper motor. **Please see page 2.054**



Technical data

Travel Range (mm)	26	52	102	155
Bi-directional Repeatability (µm)	+/- 0.2			
Accuracy per 25 mm (µm)	+/- 0.25			
Velocity Range (mm/sec)	0.001 ... 200			
Straightness / Flatness (µm)	+/- 1.5	+/- 1.5	+/- 2.5	+/- 3
Pitch (µrad)	+/- 30	+/- 40	+/- 60	+/- 70
Yaw (µrad)	+/- 40			

Speed max. (mm/sec)

<u>LM-005</u>	200			
---------------	-----	--	--	--

Resolution Closed-Loop (µm)

<u>LM-010</u> , Linear steel scale	0.1	higher resolution on request		
------------------------------------	-----	------------------------------	--	--

Winding Constant

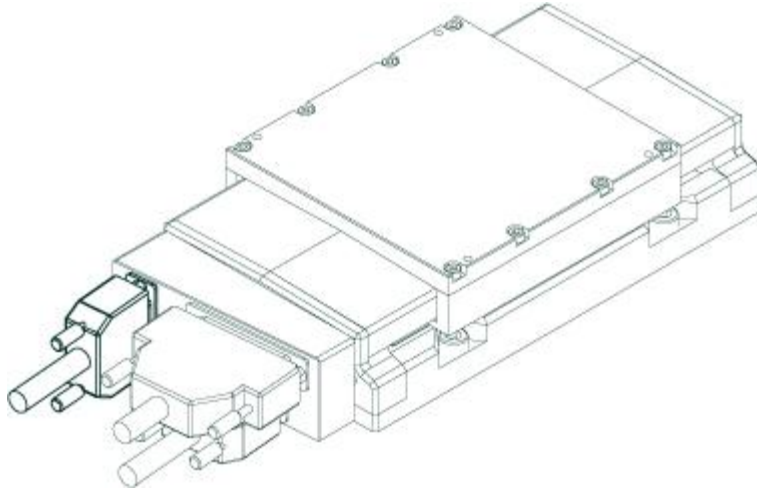
Force constant (Nm/Ams)	3.7			
Back EMF constant (peak value) V/(m/s)*	-			
Electrical time constant (ms)*	0.35			
Electrical inductance (mH)*	-			
Continuous current at 80° (Ams)	-			

Material	Special Aluminium, black anodized			
-----------------	-----------------------------------	--	--	--

Weight (kg)				
--------------------	--	--	--	--

Note: * Terminal to terminal

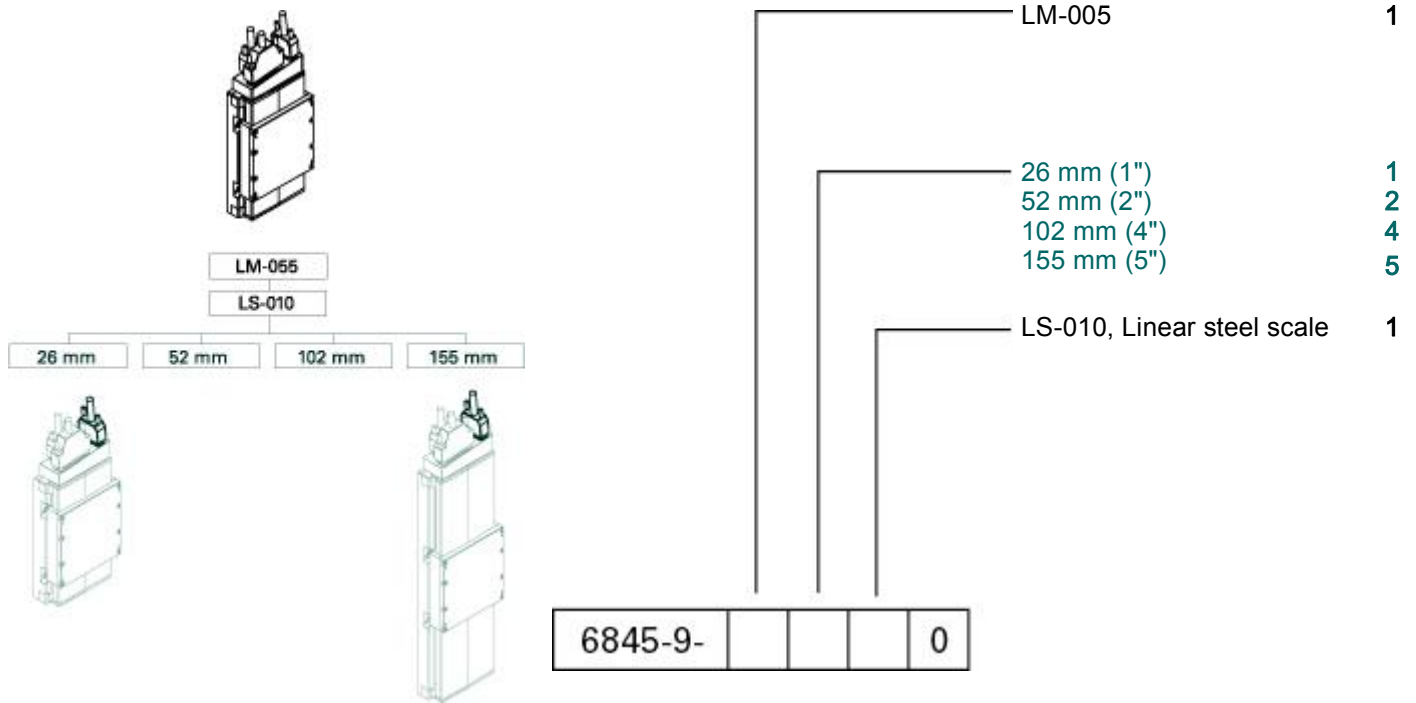
LMS-110 Motors + Base



[Download PDF](#)

LM-005

LMS-110 Ordering information



Founded in 1990, MICOS specializes in the development, manufacturing and marketing of ultra-high precision positioning components and systems for research and industry. We are experts in vacuum, ultra-high vacuum, clean room, and extreme climate environments down to 77 Kelvin. [▶▶](#)

