

# MICOS

MOTION CONTROL & OPTICS **USA**

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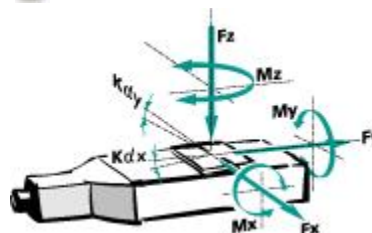
◀◀ 4.006 ▶▶ **Linear Motor Stage LMS-120**

Direct Drives



### Key features

- Linear motor
- Travel range 40 mm
- Maximum speed 200 mm/sec
- Load capacity 2.5 kg
- Bi-directional repeatability +/- 0.2  $\mu\text{m}$
- Linear recirculating ball bearings
- Special, tempered Aluminium
- Inductive limit switches integrated
- Module combination



### FACTS

Load Characteristics	Fx (N)	Fy (N) (Peak)	Fy (N) (Con.)	Fz (N)	Mx (N)	My (Nm)	Mz (Nm)	kax ( $\mu\text{rad/Nm}$ )	kay ( $\mu\text{rad/Nm}$ )
LM-005	50	6	25	100	3	6	3	10	7

### DESCRIPTION

LMS-120 [XY setup]

**Linear Stages LMS-120** is 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-120 are driven by linear motors without iron. They are controlled by closed loop modus. The length measuring system with very high accuracy is installed between the guides. Especially significant is a very quiet and dynamic smooth move. The Linear Stages LMS-120 is equipped with inductive travel limit switches and protection against damage.



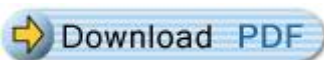
#### Technical data

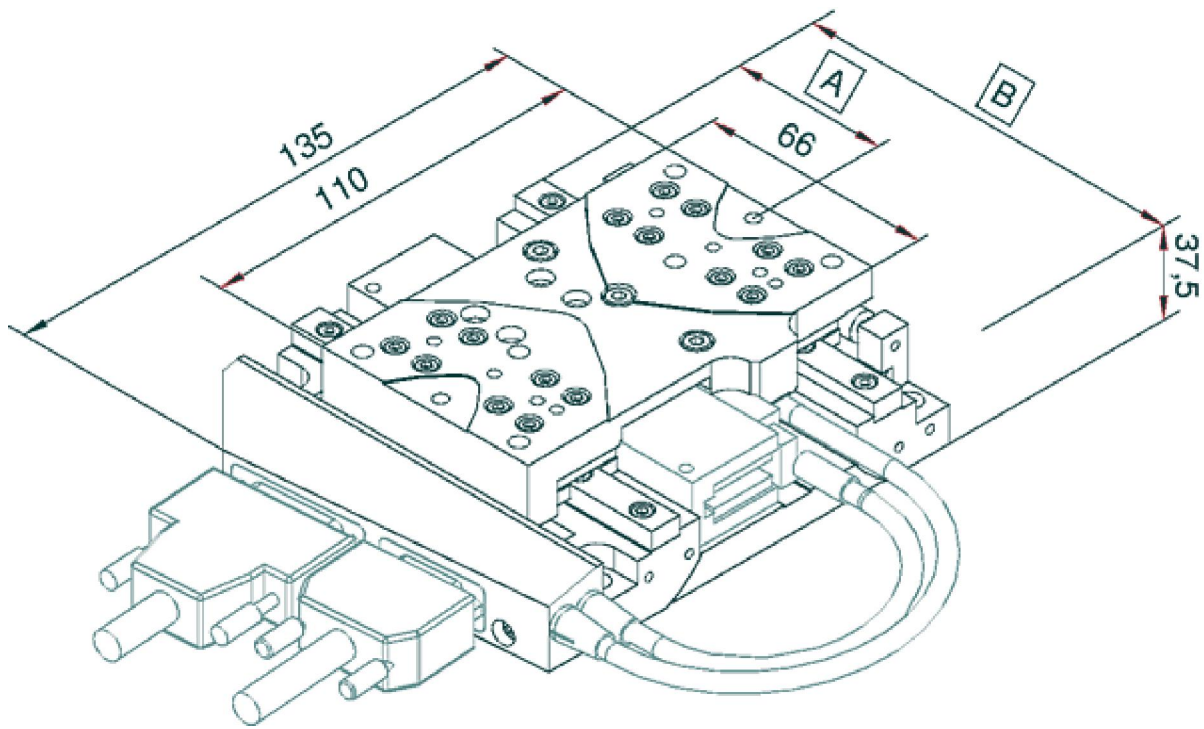
<b>Travel Range (mm)</b>	<b>40</b>
Bi-directional Repeatability ( $\mu\text{m}$ )	+/- 0.2
Accuracy per 25 mm ( $\mu\text{m}$ )	+/- 0.25
Velocity Range (mm/sec)	0.01 ... 200
Straightness / Flatness ( $\mu\text{m}$ )	+/- 2
Pitch ( $\mu\text{rad}$ )	+/- 50
Yaw ( $\mu\text{rad}$ )	+/- 40
<hr/>	
<b>Speed max. (mm/sec)</b>	
LM-005	200
<hr/>	
<b>Resolution Closed-Loop (<math>\mu\text{m}</math>)</b>	
LS-010, Linear steel scale	0.1
<hr/>	
<b>Winding Constant</b>	
Force constant (Nm/Ams)	3.7
Back EMF constant (peak value) V/(m/s)*	-
Electrical time constant (ms)*	0.35
Electrical inductance (mH)*	-
Continuous at 80° (Ams)	-
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<b>Material</b>	Special-Alu, black anodized
<b>Weight (kg)</b>	1.3

MOTION CONTROL Systems Positioners MiniPos DirectDrives Controllers ManPos Accessories Vacuum MAC PhotonX M A C

LMS-120 Base & Motors

Travel ranges	A (mm)	B (mm)
40 mm	57.5	115





LM-005

MOTION CONTROL Systems Positioners MiniPos DirectDrives Controllers ManPos Accessories Vacuum MAC PhotonX M A C

LMS-120 Ordering information

LM-005	1
40 mm	1
LS-010, Linear steel scale	1

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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. ▶▶

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