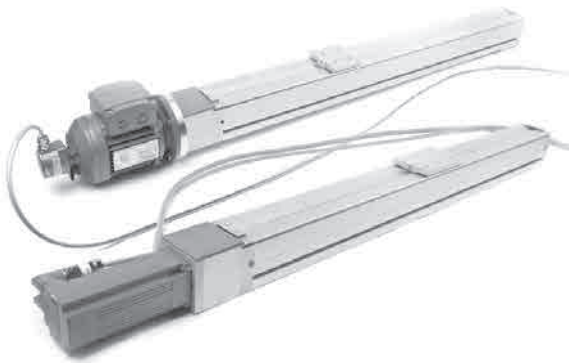


LINEAR MODULE LMS 90

The linear module LMS 90 is designed for applications requiring precision and durability with minimal installation space. It is constructed for a stroke up to 2845 mm. The guide with the standard grid dimension 90 x 90 mm of our modular system is based on highly accurate rail systems which are integrated into a profile system. The high performance linear rail guides are built to perform 10000 km.



GUIDANCE OPTIONS

- Heavy-duty rail guides with permanent lubrication, versions S1 and S2
- Plastic sliding guides for very economical applications (version G)

COP VERSIONS

- Ball screw tolerance class T7, right-handed, axial clearance max. 0.04 mm, repeatability 52 µm / 300 mm
- Trapezoidal thread spindle 16x4, optional right-handed biased with increased accuracy

For all units, the spindle nuts are designed for relubrication.

SPECIFICATIONS

- Compact support profile 90x90 with standard profile grooves, compatible with all MiniTec construction profiles
- Fully enclosed module, guide groove covered with stainless steel tape
- Guides and spindle easily accessible through removable cover profiles
- Special grooves for external mounting of position detection sensors
- Easy installation of external switches on lateral profile grooves
- Carriage made of aluminum, precision-machined on all sides, prepared for attachments with 4 or 6 connecting threads M8 at intervals of 45 mm
- Travel up to 2845 mm
- 2 bearing units with precision ball bearings, lubricated for life, with tenon Ø 10 mm
- Optional version with keyway or adapter plate machined according to engine specification

TECHNICAL DATA

Model series	Spindle	Execution	Number Linear slide	Part no.	max. Traversing	Car length WL	max. Stroke
LMS 90	T 16x4	G	4	28.1001/0	0,03 m/s	135 mm	1845 mm
LMS 90	K 16x5	S1	2	28.1000/0	0,25 m/s	90 mm	2845 mm
LMS 90	K 16x10	S1	2	28.1000/1	0,5 m/s	90 mm	2845 mm
LMS 90	K 16x16	S1	2	28.1000/2	0,8 m/s	90 mm	2845 mm
LMS 90	K 16x5	S2	4	28.1002/0	0,25 m/s	135 mm	2800 mm
LMS 90	K 16x10	S2	4	28.1002/1	0,5 m/s	135 mm	2800 mm
LMS 90	K 16x16	S2	4	28.1002/2	0,8 m/s	135 mm	2800 mm

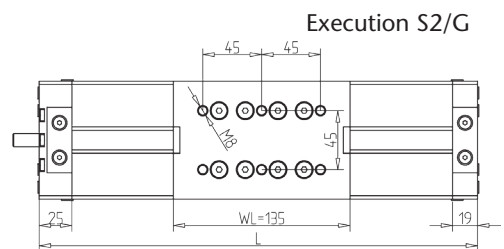
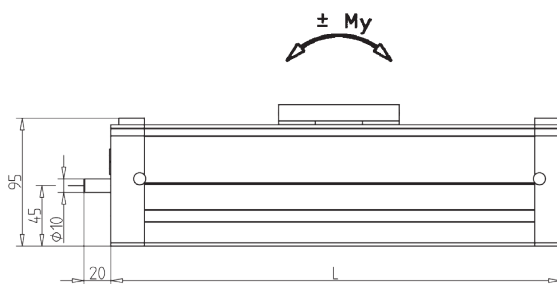
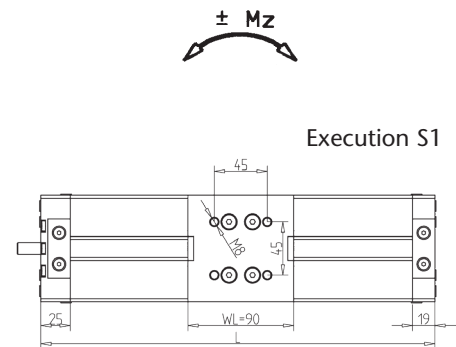
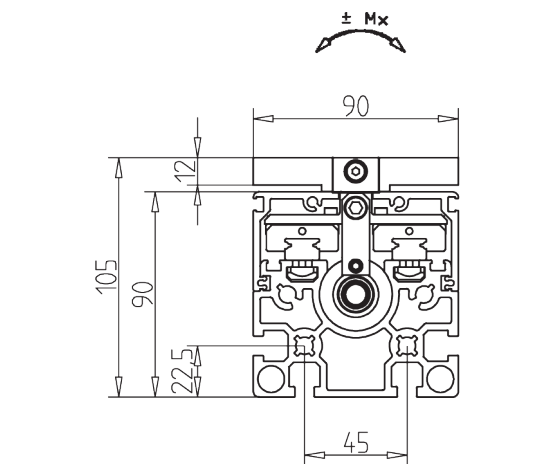
Execution	Load rating N		Permissible stat. tilting moments (Nm)		
	Cdyn	Cstat	Mx	My	Mz
S1	7620	11180	54	54	54
S2	15240	22360	108	108	108
G	2800	2800	22	22	22

Spindle

- Acme screw K
- Ballscrew T

Guidance

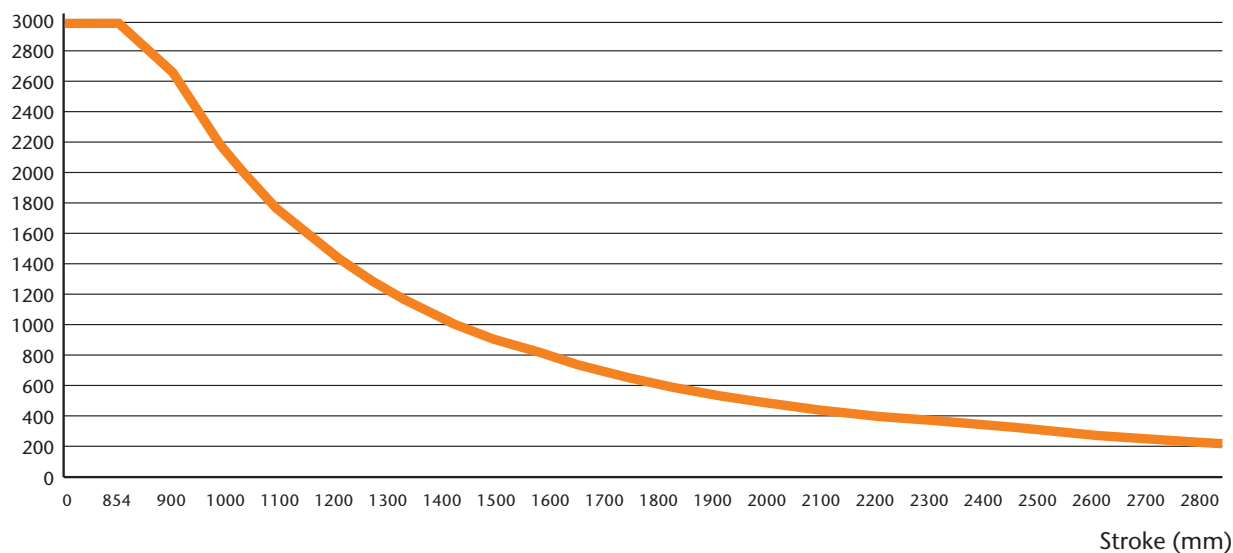
- 2 sliding guides each with 2 linear slides Gr. 15 G (S1)
- 2 rail guides each with 1 linear slide Gr. 15 (S2)
- 2 rail guides with 2 linear slides Gr. 15 (S2)



TECHNICAL DATA

Maximum speed depending on stroke

Speed (rpm.)



On request, the unit can also be equipped with an internal spindle support. As a result, the speed can be increased considerably with a corresponding stroke.

As a guideline can be set:

Spindle support simple Part no.: 28.1050/0 - nmax x 2

When using the simple spindle support, the stroke is shortened by 25mm

Spindle support double Part no.: 28.1051/0 - nmax x 3

When using the double spindle supports, the stroke is shortened by 60 mm

Calculation of the maximum speed (nmax.):

$$n_{\max} = \frac{1,963 \times 10^9}{(H-45)^2}$$

ORDERING

Please enter the article number plus the desired stroke length H or the total length L. (xx.xxxx / x + stroke length or total length)

- Overall length (L) = stroke length (H) + carriage length (WL) + 50 mm
- Stroke (H)
- Car length (WL)

If you have any questions about the product or the ordering process, please do not hesitate to contact our team of Lineartechnik by phone +49 (0) 6373 8127-0 or by e-mail info@minitec.de.

ENGINE KITS & DRIVE PACKAGES

ENGINE KITS FOR LMS 90

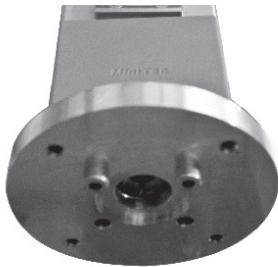
Motor fastening kit LMS 90 DRM

(MiniTec Part No: 28.1040/0)

Motor fastening kit LMS for three-phase motor (for drive package with three-phase asynchronous motor, MiniTec Part no. 33.1010/0 bzw. 33.1020/0), without motor.

Items Supplied

- Coupling housing made of profile incl. adapter plate
- Coupling
- Screws and equipment

**Motor fastening kit LMS 90 SERVO**

(MiniTec part no: 28.1041/0)

Motor fastening kit LMS for servomotors (for drive package with synchronous servomotor, MiniTec Part no. 33.1030/0), without motor.

Items Supplied

- Coupling housing made of profile incl. adapter plate
- Coupling
- Screws and equipment

Options

- Adapted adapter plates and couplings for special motors



DRIVE PACKAGES FOR LMS 90

DRIVE PACKAGE LMS 90 DRM-POSI

(MiniTec Part No: 33.1020/0)

Three-phase asynchronous motor with encoder feedback with drive inverter for table positioning

Items Supplied

- Three-phase asynchronous motor 0.18kW; 1320 1 / min at 50Hz, version with pulse generator and temperature sensor
- Motor cable, length 5m
- Encoder cable, length 5m
- Drive inverter MDX61B for table positioning via IO for customer installation in the control cabinet
- 2 pieces of inductive proximity switch for T-slot for axial end position (NC)
- 1 piece of inductive proximity switch for T-slot for axial end position (NO) including motor fastening kit LMS 90 DRM (Part No .: 28.1040/0)

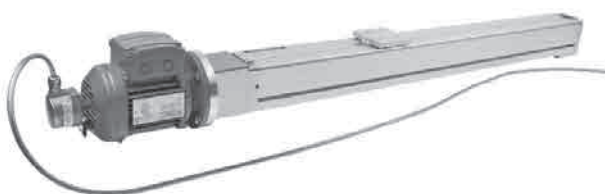
DRIVE PACKAGE LMS 90 DRM-ECO

(MiniTec Part No: 33.1010/0)

Three-phase asynchronous motor without encoder feedback with frequency converter for easy positioning via switch

Items Supplied

- Three-phase asynchronous motor 0.18kW; 1320 1 / min at 50Hz, version with temperature sensor
- Motor cable, length 5m
- Drive inverter MC07B, control via IO for customer installation in the control cabinet
- 2 pieces of inductive proximity switch for T-slot for axial end position (NC)
- 1 piece inductive proximity switch for T-slot for axial end position (NO)
- including motor fastening kit LMS 90 DRM (Part no: 28.1040/0)



ENGINE KITS & DRIVE PACKAGES

DRIVE PACKAGES FOR LMS 90

DRIVE PACKAGE LMS 90 SERVO

(MiniTec Part No: 33.1030/0)

Synchronous servo motor with drive inverter for dynamic applications for table positioning

Items Supplied

Synchronous servo motor with 2.4 Nm nominal torque, 3000 1 / min, version with resolver and temperature sensor

Motor cable, length 5m

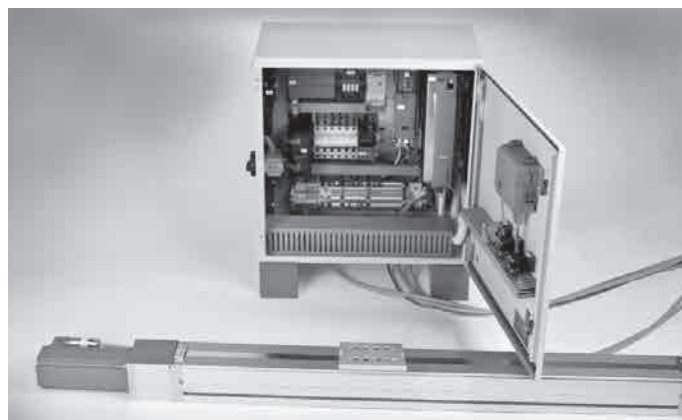
Encoder cable, length 5m

Drive inverter MDX61B for table positioning via IO for customer installation in the control cabinet

2 pieces of inductive proximity switch for T-slot for axial end position (NC)

1 piece inductive proximity switch for T-slot for axial end position (NO)

including motor fastening kit LMS 90 Servo (Part No: 28.1041/0)

**Options**

Motor with holding brake

Motor version with absolute encoder

PROFIBus / PPOFIsafe / PROFINET / Ethercat Interface cards for the drive inverter

Additional sensors e.g. additional creep / stop positions

READY-TO-INSTALL POSITIONING SYSTEMS

The new high-performance module LMS 90 is also available as a ready-to-install system with drive package and control unit.

A suitable complete package is available for every task - from the particularly economical ECO design to the highly dynamic servo drive. Upon request, we also take over the commissioning and application programming for you.

Thanks to the standardized profile geometry, the LMS axes can be variably combined with each other or with all other linear modules from MiniTec to form multi-axis systems.

