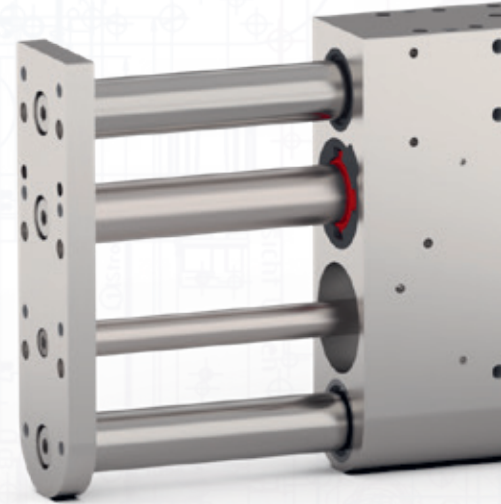


Linear Modules

LinMot Linear Modules are precise, easy to install and ready to use linear systems that are energy efficient and require little installation space. These products offer high guidance accuracy and allow dynamic and precise positioning of the load while absorbing external forces, torsional and bending moments. The high degree of standardisation and modularity means that the linear modules can be flexibly combined. This allows easy configuration of multi-axis systems such as gantry, semi-gantry or pick-and-place.



Peak forces
over 1000N



High
dynamics



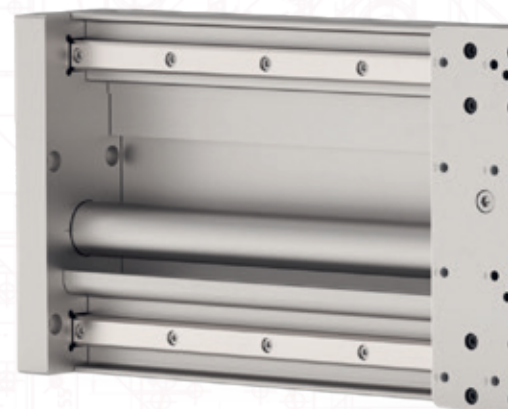
Simple
installation



Stroke lengths
up to 2 m

Type Long-stroke Modules

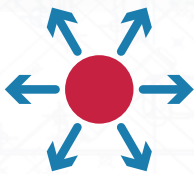
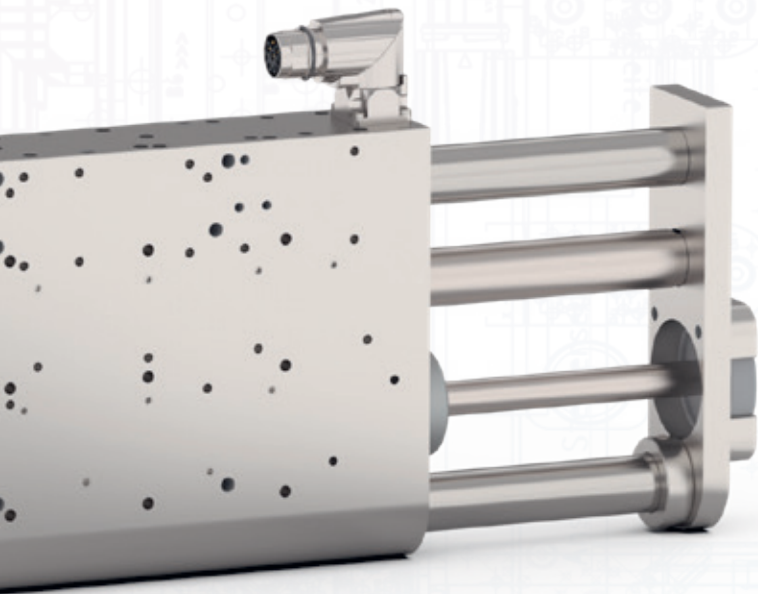
Moving Stator Linear Modules offer high guidance accuracy, precise load positioning and reliable operation, even with heavy loads and over long distances. They consist of a special aluminium profile on which up to 2 high precision rails with up to 4 ball bearing carriages per stator can be mounted. They can be assembled into a gantry or semi-gantry construction without additional adapters and are mechanically compatible with many other LinMot products. All this, plus the fact that several stators can be driven on the same guide, makes the linear modules a powerful tool for any automation task.



Type **Short-stroke Modules**

Linear modules with a moving

carriage provide dynamic and precise load positioning in a very compact housing with exceptional running characteristics. The modules feature a low moving mass and high bending and torsional stiffness. High-resolution encoders make it easy to implement precise applications. The integrated load compensation makes the modules the perfect Z-axis option. Their compactness also makes them ideal for highly dynamic positioning tasks in the short to medium stroke range.



Freely positionable
with programmable
parameters



High load
capacity

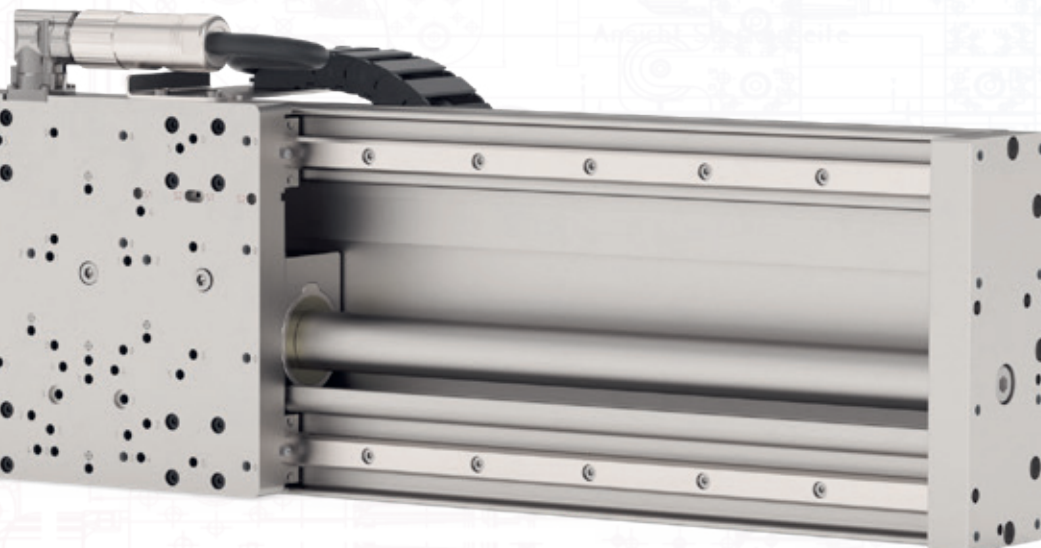


Long service
life



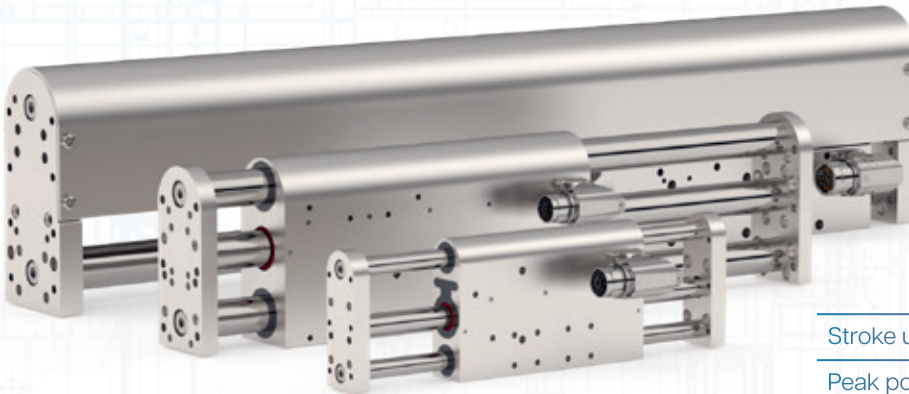
Plug &
Play

The linear module product range covers several performance classes with all the stroke lengths required, guaranteeing millions of precise load changes. With linear modules and guides, you can choose between different sizes, countless stroke lengths and many available options. We offer the optimum solution for every application.



Short-stroke Modules DM01

- Guide system with high bending stiffness
- Anodised aluminium housing for easy cleaning
- Corrosion-resistant, hard chrome-plated guide shafts
- Linear ball bearing with food-grade lubricant (NSF H1)
- 1 module, 1 article number, ready-to-install
- Fast commissioning and low engineering effort

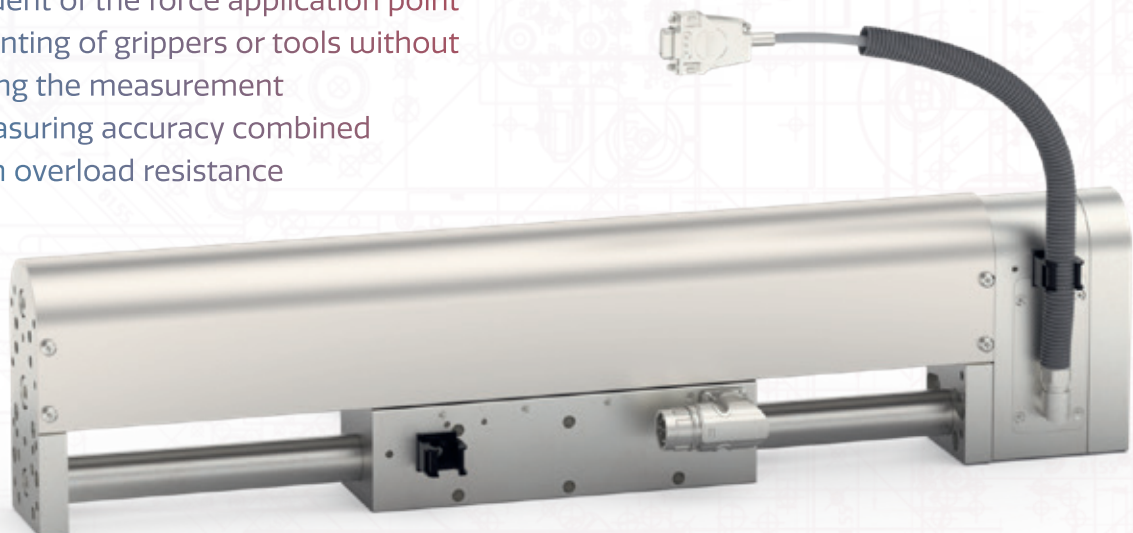


Stroke up to	mm	575
Peak power	N	67-572
Moving mass	kg	0.46-8.86
Typical payload	kg	0.5-30
Max. speed	m/s	5

Option

Integrated Force Sensor

- Front flange with force sensors for direct attachment to DM01 modules
- Realisation of force-controlled applications such as joining or pressing
- Implementation of process controls based on force profiles
- Decoupled force measurement in the direction of movement independent of the force application point
- Any mounting of grippers or tools without influencing the measurement
- High measuring accuracy combined with high overload resistance



Option Clean Room ISO4

The particle emission behaviour of the DM01 series was tested by Fraunhofer IPA in accordance with standard 184-230609797 and the linear modules were certified with the „Fraunhofer TESTED DEVICE®“ test mark for cleanroom class ISO4.



Fraunhofer

**TESTED®
DEVICE**

NTI AG - LinMot
Report No. NT 2009-1177

Perfect for use in:

- Semiconductor manufacturing
- Medical technology and pharmacy
- Food technology
- Microsystem production
- Precision engineering
- Optics
- Display production
- Photovoltaics

Z-Axes with Load Compensation DM03

- With reinforced MagSpring® for vertical load compensation
- 3 sizes in the stroke range up to 695 mm and forces up to 572 N
- Linear ball bearing with food-grade lubricant (NSF H1)
- Optionally with force sensor and high-precision absolute position sensor
- Slim design for optimum series layout
- Direct mounting of the load with absorption of shear forces
- Corrosion-resistant, hard chrome-plated guide rods
- Simple load simulation with LinMot Designer software
- Can be combined as required to create multi-axis systems

Stroke up to	mm	695
Peak power	N	67-572
Moving mass	kg	0.58-6.16
Typical payload	kg	0.5-15
Max. speed	m/s	5



Long-stroke Modules

FM01

- Compact, highly dynamic guide for long-stroke applications and multi-axis configurations
- High accuracy, high rigidity, high speed
- High-precision profile rail guide
- Compatible with LinMot products
- Configurable with one or more stators per guide

Stroke up to	mm	2150
Peak power	N	128-1020
Moving mass	kg	1.1-5.85
Max. speed	m/s	5

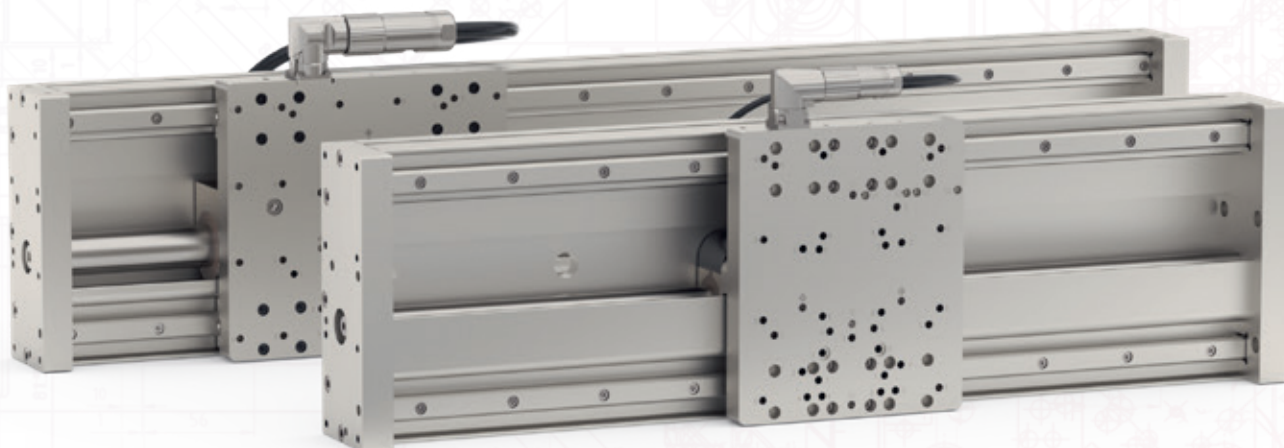


Long-stroke Modules

EM01

- Heavy-duty guide for applications where stability and resistance to moment loads are crucial.
- High motion accuracy
- Extreme load capacity and rigidity
- 2 high-precision profile rail guides with 4 carriages
- Compatible with LinMot products
- Configurable with one or more stators per guide

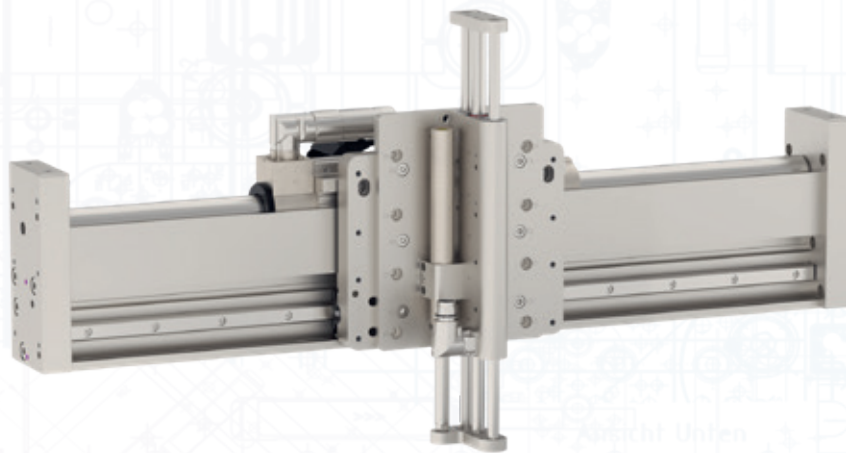
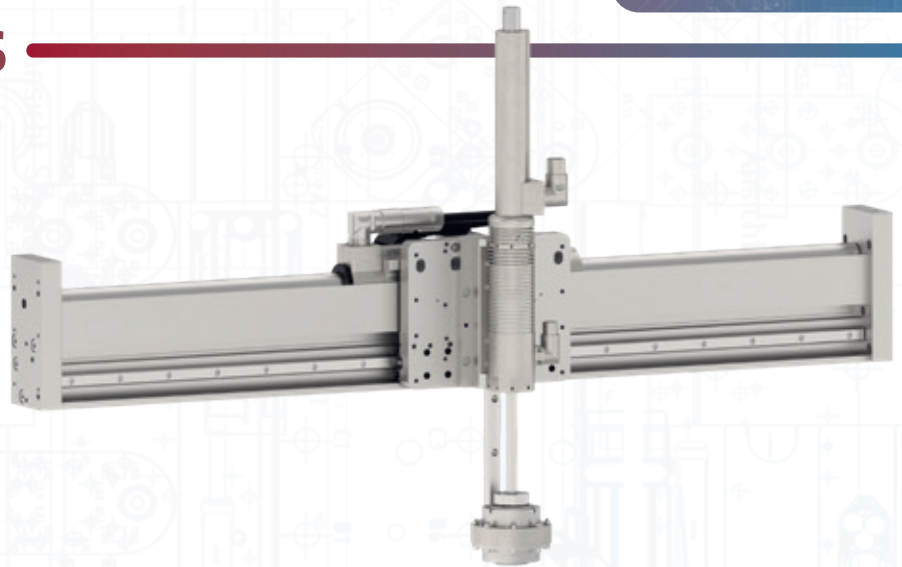
Stroke up to	mm	1838
Peak power	N	128-572
Moving mass	kg	2.14-5.97
Max. speed	m/s	5



Combinations

Pick, Rotate & Place

FM01-48x240 &
PR01-52 with gearbox

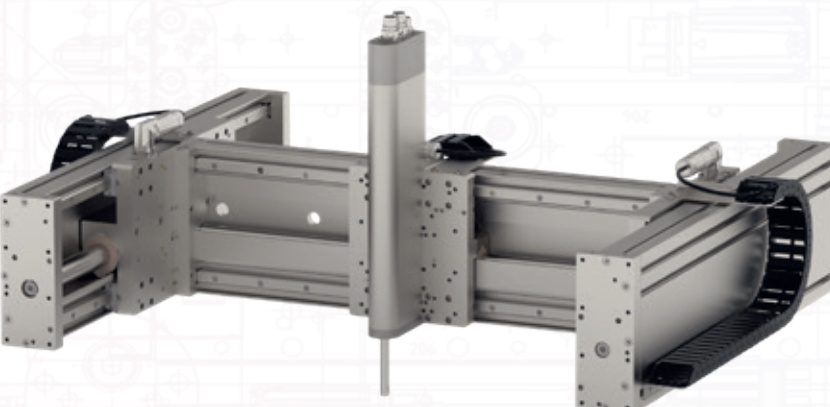
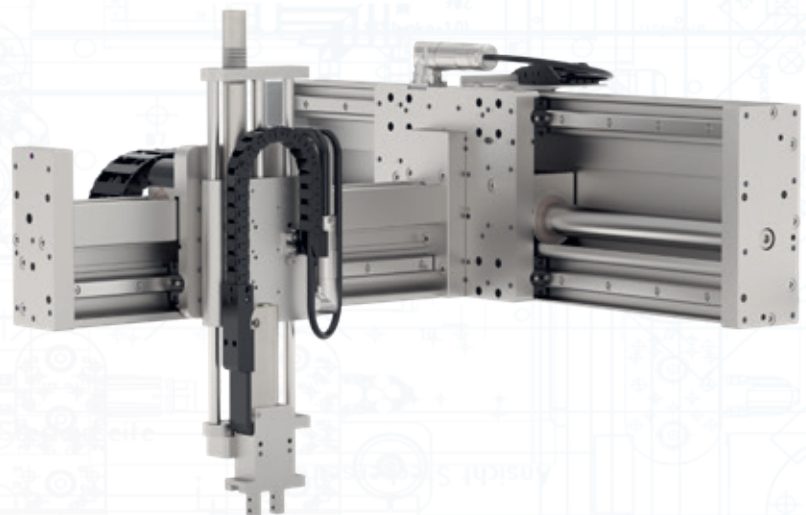


Pick & Place

FM01-48x240 &
DM01-23x160 and MagSpring

Semi Gantry

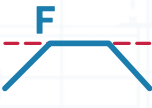
FM01-37x120 & EM01-48x150 with
DM03-23x80 with GM50-23x80

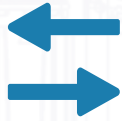


Gantry

2x EM01-48x240 &
EM01-37x120 with PR02-38

Specifications at a Glance

Linear Modules Short stroke						Option 
	Max. stroke	Max. force	Max. cont. force	Typical payload	Force sensor	High-resolution position sensor
DM01-23x80	350 mm	67 N	25 N	≤ 7 kg	✓	
DM03-23x80	290 mm	67 N	27 N	≤ 3 kg	✓	
DM01-23x160	270 mm	138 N	50 N	≤ 7 kg	✓	
DM03-23x160	270 mm	138 N	50 N	≤ 5 kg	✓	
DM01-37x120	495 mm	255 N	87 N	≤ 16 kg	✓	✓
DM03-37x120	695 mm	255 N	87 N	≤ 15 kg	✓	✓
DM01-48x150	575 mm	360 N	150 N	≤ 30 kg	✓	✓
DM03-48x150	275 mm	360 N	150 N	≤ 20 kg	✓	✓
DM01-48x240	485 mm	572 N	233 N	≤ 40 kg	✓	
DM03-48x240	285 mm	572 N	233 N	≤ 25 kg	✓	✓

Linear Modules Long-stroke					Option 
	Max. stroke	Max. force	Max. cont. force	Typical payload	High-resolution position sensor
EM01-37Sx60	1895 mm	128 N	16 N	≤ 15 kg	
FM01-37Sx60	1895 mm	128 N	16 N	≤ 7 kg	
EM01-37Sx120	1835 mm	255 N	35 N	≤ 30 kg	
FM01-37Sx120	1835 mm	255 N	35 N	≤ 15 kg	
EM01-48x150	1405 mm	360 N	100 N	≤ 40 kg	
FM01-48x150	1405 mm	360 N	100 N	≤ 20 kg	
EM01-48x240	1315 mm	572 N	170 N	≤ 80 kg	
FM01-48x240	2150 mm	572 N	170 N	≤ 30 kg	
FM01-48x360	2030 mm	1020 N	170 N	≤ 30 kg	