

Timing Belt Feed Axis

(Open Timing Belt Feed Axis)

LEZ 1

(ZF 1)

Feeds and Shaft Slides are also available in Rust-Proof Designs!



- Option:
Special length in steps of 100 mm on request, max. 6000 mm
- Connection about integrated thread rails M6, in steps of 50 mm

Features

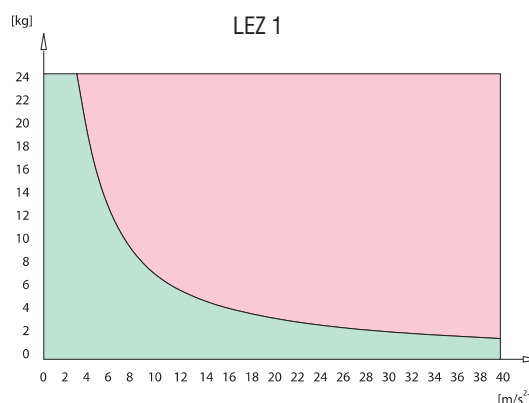
- Aluminium profile with midjet linear guide LFS-8-2
- Clearance-free feed with timing belt feed axis
- timing belt with 3 mm pitch, width 9 mm
- Feed per revolution: 60 mm
- Repeatability less or equal ± 0.2 mm
- Feed 1.5 m/s, at the most
- Limit and/or reference switch accuracy < 0.1 mm (with drive modules)

Technical Data

Belt version.....	HTD 3M, width 9 mm
Weight of slide.....	0.430 kg
Weight without drive module.....	1000 mm $\cong$ 3 kg
Nominal mass of timing belt.....	0.0225 kg/m
Weight of carriage.....	1.03 kg
Nominal weight of guide.....	0.200 kg/100 mm
Effective diameter of the synchronized pulleys..	$\varnothing 19.10$ mm
Moment of inertia of the synchronized pulleys..	$5.585 \cdot 10^{-7}$ kgm ²
Feed per revolution.....	60 mm

Load Diagram

Permissible accelerated masses related to belt strength*

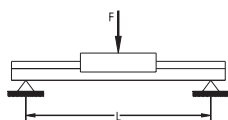


* At vertical assembly, the acceleration due to gravity ($g = 9.81$ m/s²) has to be taken into account

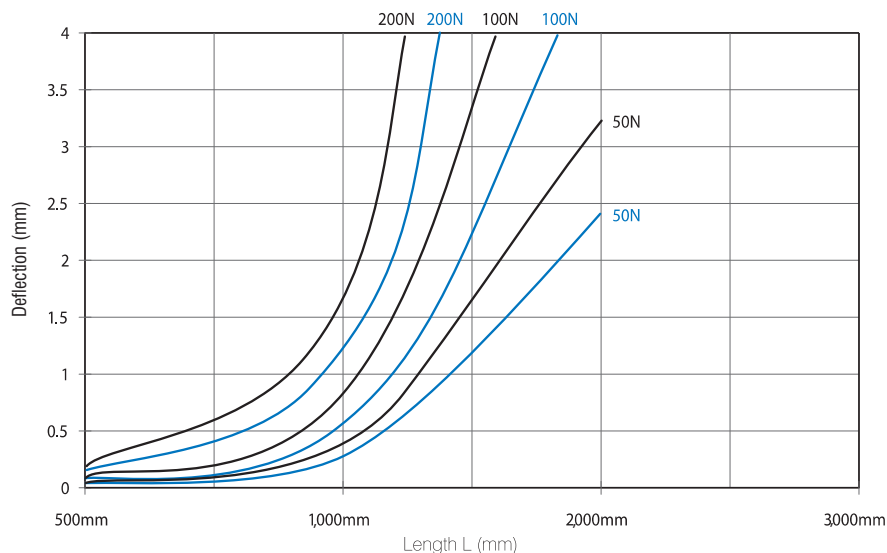
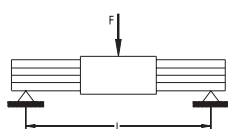
Deflection

Deflection Timing Belt Feed Axis LEZ 1

Load - example 1



Load - example 2



Timing Belt Feed Axis

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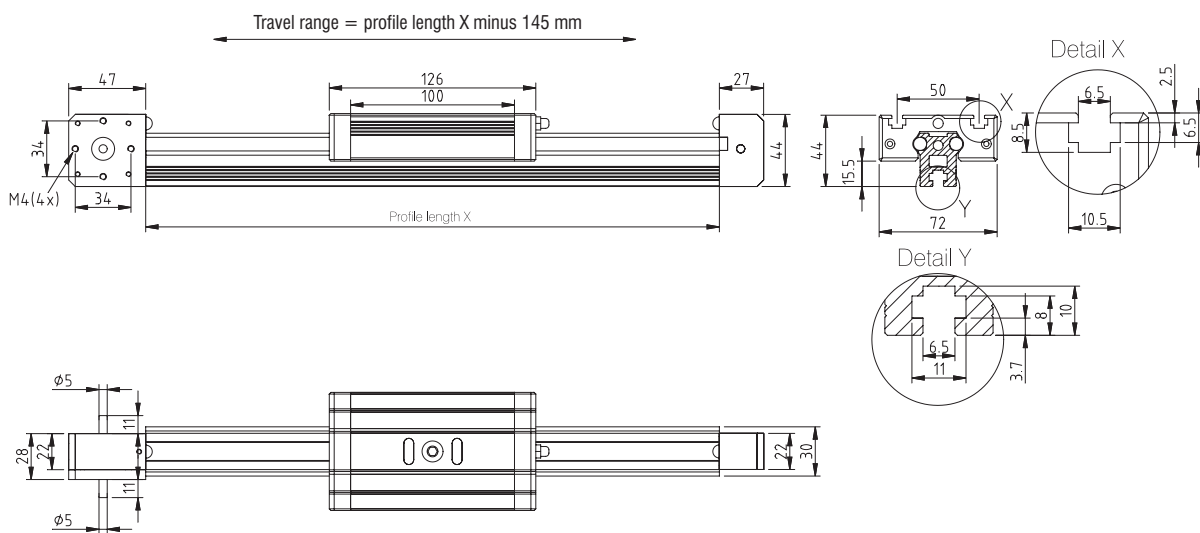
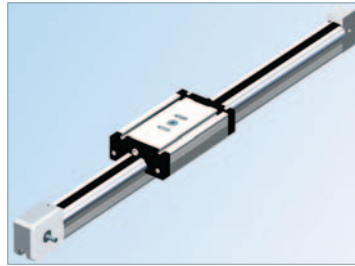
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mechanics

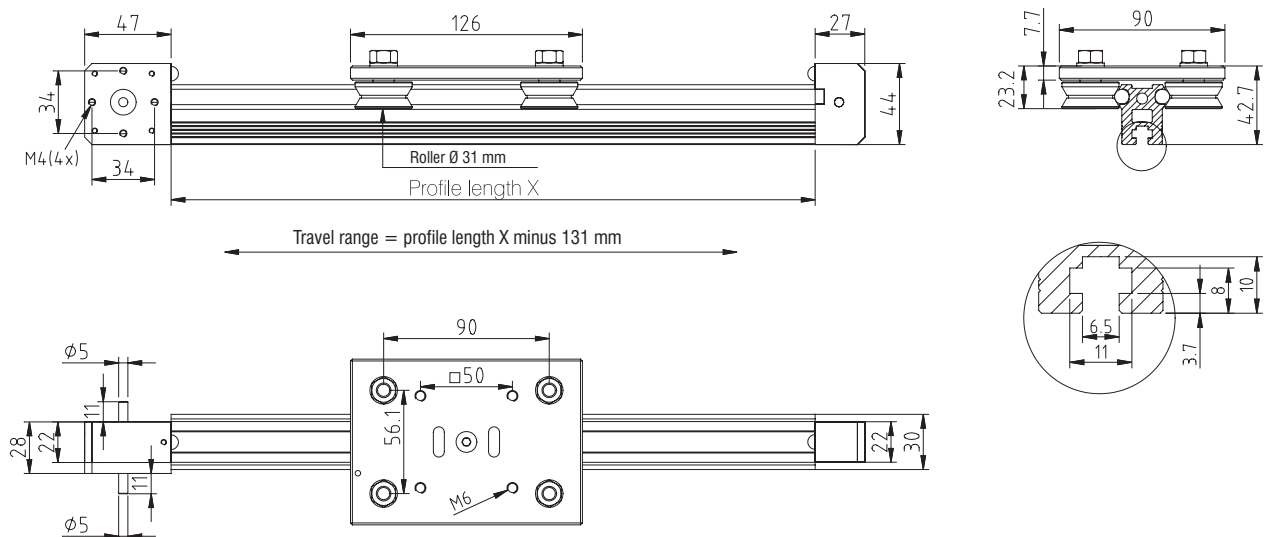
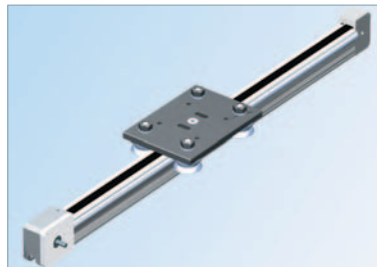
Timing Belt Feed Axis

without Motor
with Shaft Slide



Timing Belt Feed Axis

without Motor
with Carriage



Timing Belt Feed Axis

LEZ 1 (ZF 1)

Drive Modules

Stepping Motor MS 050 HT

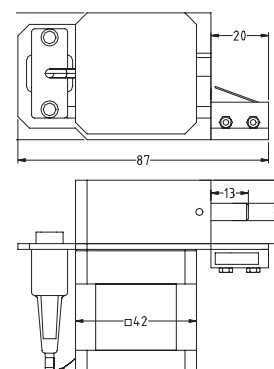
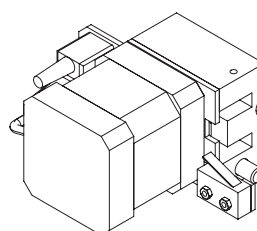
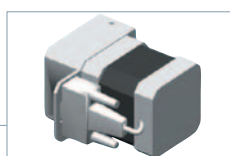
Holding torque - bipolar..... 50 Ncm
 Stepping angle, full step..... 1.8 deg
 Stepping angle, half step..... 0.9 deg
 Nominal voltage – bipolar 3.2 V
 Resistance of winding..... 1.1 Ω
 Inductance of winding..... 1.85 mH
 Current of winding - bipolar..... 1.8 A

Stepping Motor MS 160

Holding torque – bipolar..... 160 Ncm
 Stepping angle, full step..... 1.8 deg
 Stepping angle, half step..... 0.9 deg
 Nominal voltage – bipolar..... 1.7 V
 Resistance of winding..... 1.2 Ω
 Inductance of winding..... 2.2 mH
 Current of winding - bipolar..... 4.1 A

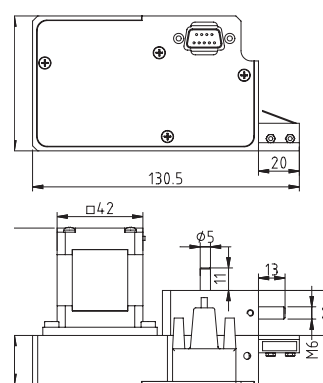
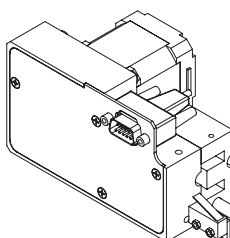
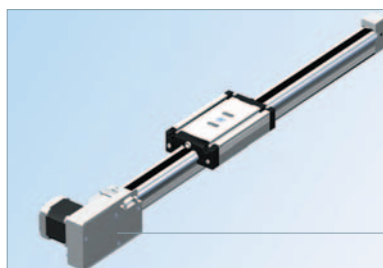
Drive Module with Stepping Motor MS 050 HT (Ratio 1:1)

Feed: 60 mm/Revolution



Drive Module with Stepping Motor MS 050 HT (Ratio 2:1)

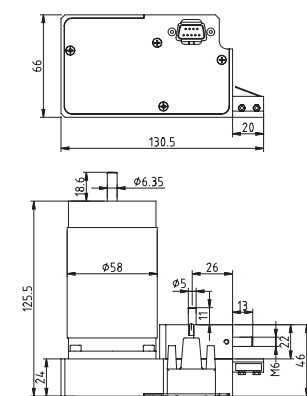
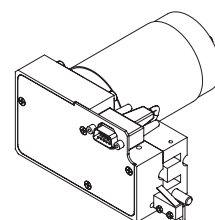
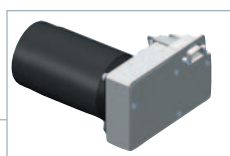
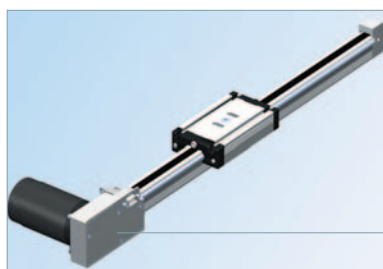
Feed: 30 mm/Revolution



Drive Module with Stepping Motor MS 160 (Ratio 2:1)

Feed: 30 mm/Revolution *

* Upon Request: Gear Ratio 1:1, 60 mm/Revolution



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Order Key

232 005 XXXX

Drives, Slides, Carriages

0 = stepping motor MS 050 HT	(ratio 1:1)	with shaft slide
1 = stepping motor MS 050 HT	(ratio 1:1)	with carriage
2 = stepping motor MS 050 HT	(ratio 2:1)	with shaft slide
3 = stepping motor MS 050 HT	(ratio 2:1)	with carriage
4 = stepping motor MS 160	(ratio 2:1)	with shaft slide
5 = stepping motor MS 160	(ratio 2:1)	with carriage
6 = DC servo motor MV 120	(ratio 1:1)	with shaft slide
7 = stepping motor MS 135 HT	(ratio 2:1)	with shaft slide
8 = without motor		with shaft slide
9 = without motor		with carriage
Y = stepping motor MS 160, motor on the right side	(ratio 1:1)	with shaft slide
Z = stepping motor MS 160 motor on the left side	(ratio 1:1)	with shaft slide

Profile Lengths MLF 2 (mm)

298, 398, 498, 598, 675,
698, 798, 998, 1498, 1798,
1998, 2498, 2998

(e. g. 398 mm = 040
675 mm = 068)

Options: up to 6,000 mm

Order Samples



- with stepping motor MS 050 HT*
- ratio 1:1
- with shaft slide
- profile length 675 mm

Item no.: **232005 0068**



- with stepping motor MS 050 HT*
- ratio 2:1
- with shaft slide
- profile length 675 mm

Item no.: **232005 2068**

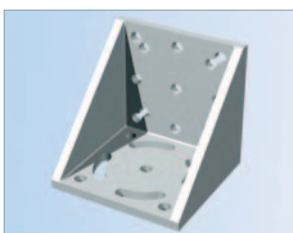


- with stepping motor MS 160*
- ratio 2:1
- with shaft slide
- profile length 675 mm

Item no.: **232005 4068**

* Set-up of motor according to picture

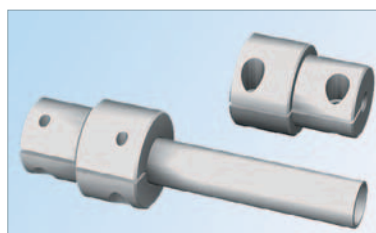
Accessory



Angle Brackets

- for LEZ 1

Item no.: **209110 0010**



Coupling 20/30

- for LEZ 1
- 1 packaging unit = 1 coupling

Item no.: **218001 5080**

Aluminum Bearing Carriage WS 1/70

- L 96 x W 72 x H 28,5 mm
- Milled clamping surface
- M6 T-grooves
- Central lubrication
- Adjustable free of clearance
- Weight: 0.35 kg
- Option: stainless version

Item no.: **223 100 0070**

stainless: **223 101 0070**

Limit switch set

- Option: second limit switch
- for LEZ 1

Item no.: **632 125 0002**