

Linear units with spindle drive

LES 4 / LES 6



Figures:
LES 4 / 6 - prepared for
flange-mounted motor modules

Figure:
Drive control iMD 10/20

Characteristics

- Aluminium shaft profile, anodized
W 75 x H 75 mm (linear unit LES 4)
W 150 x H 75 mm (linear unit LES 6)
- Clamping surface and profile underside planer milled
- with 2 or 4 precision steel shafts
Ø 12 h6, Material Cf53, hardness 60 ±2HRC
- Aluminium shaft slide WS 5/70, 2 x WS 5/70 (70 mm long), backlash-free adjustable, centralised lubrication
- Ball screw assemblies with 5mm pitch
- Profile sealed with abrasion-resistant sealing lip
- Aluminium diecast end plate with 2 limit or reference switches, Repeat accuracy ± 0.02 mm
- sealed angular ball bearing inside drive steel flange

General

The LES series linear units with spindle drive feature a modular configuration and can be used for many applications. The rigid aluminium profiles with precision steel shafts form the basis. The feed motion is carried out with ball screw assemblies, stepper motors or servo motors are used as power drives. The LES series linear units can be used horizontally as well as

vertically. The patented shaft slide with continuous ball race is used as the guide slide. The supporting balls run between 2 ground steel pins and the guide shaft. Available in sizes up to 3 metres long, per customer specifications.

Technical specifications

| | LES 4 | LES 6 |
|---------------------------------------|-------------------------|-------------------------|
| Moment of inertia I_x | 107.711 cm ⁴ | 707.100 cm ⁴ |
| Moment of inertia I_y | 125.843 cm ⁴ | 212.200 cm ⁴ |
| Centre of gravity (see scale drawing) | 33.23 mm | 32.78 mm |
| Cross-sectional area | 18.81 cm ² | 30.07 cm ² |
| Material | AlMgSi0, 5F22 | AlMgSi0, 5F22 |
| Anodisation | E6/EV1 | E6/EV1 |
| Steel shaft weight | 6.2 kg/m | 11.4 kg/m |
| Weight of steel shafts and spindles | 7.6 kg/m | 12.8 kg/m |

Options:

- Special lengths in a grid 100 mm available upon request, max. 2990 mm
- Electromagnetic brake
- Steel slide LS2
Item no. 991112
- Limit switch add-on kit (see accessories)
- Ball screw assembly with 10mm pitch
- max. length 3 m with spindle support (1.5 m and up)
- Motor module with stepper motor or servo motor
- Drive control

Order data LES 4

Without drive, spindle pitch 5 mm, 1 shaft slide:

- Item no.:** 234003 0049 (Length 490 mm)
- Item no.:** 234003 0099 (Length 990 mm)
- Item no.:** 234003 0149 (Length 1490 mm)

with DC servo motor, spindle pitch 5 mm, 1 shaft slide:

- Item no.:** 234003 004901 (Length 490 mm)
- Item no.:** 234003 009901 (Length 990 mm)
- Item no.:** 234003 014901 (Length 1490 mm)

Order data LES 6

Without drive, spindle pitch 5 mm, 2 shaft slides:

- Item no.:** 234603 0049 (Length 490 mm)
- Item no.:** 234603 0099 (Length 990 mm)
- Item no.:** 234603 0149 (Length 1490 mm)

with DC servo motor, spindle pitch 5 mm, 2 shaft slide:

- Item no.:** 234603 004901 (Length 490 mm)
- Item no.:** 234603 009901 (Length 990 mm)
- Item no.:** 234603 014901 (Length 1490 mm)

Technical specifications subject to change.