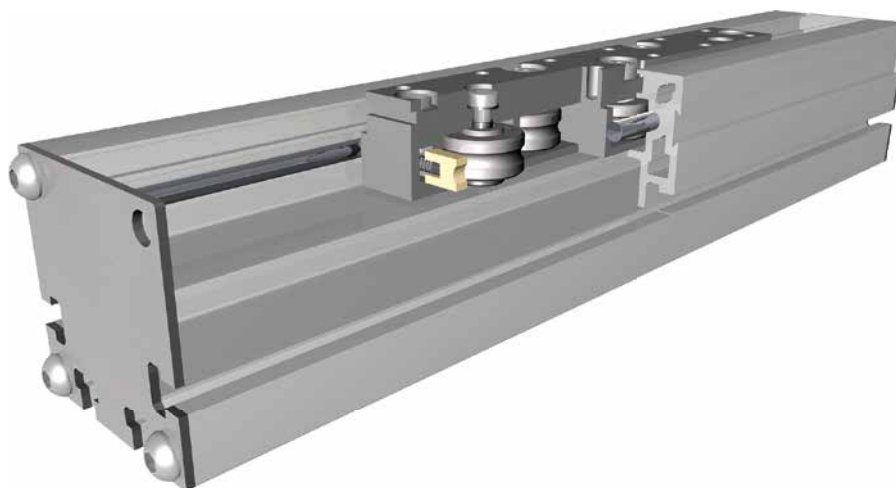


Roller guide without drive



Function:

The guide body consists of an aluminium square profile, with an integrated roller guide. This roller guide can be driven by a pneumatic cylinder or other additional drives or it serves as a load carrying slide unit.

Fitting position:

As required. Max. length 6.000 mm without joints.

Carriage mounting:

By tapped holes.

Unit mounting:

By T-slots and mounting sets. The linear axis can be combined with any T-slot profile.

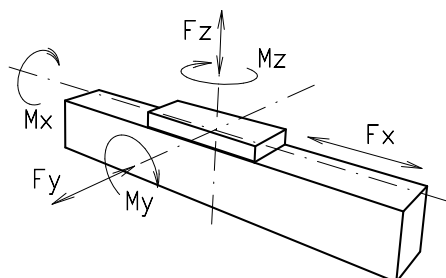
Belt performance:

HTD with steel reinforcement, no backlash when changing direction, repeatability $\pm 0,1$ mm.

Carriage support:

The carriage runs on 5 rollers which can be adjusted and serviced at each central servicing position. Two grease nipples at the carriage enable relubrication of the positioning system.

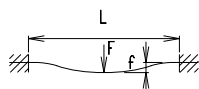
Forces and torques



| Size | 60 | | 80 | |
|--|--|---------|-----------------------|---------|
| | static | dynamic | static | dynamic |
| Forces/Torques | | | | |
| F_x (N) | – | – | – | – |
| F_y (N) | 780 | 650 | 1900 | 1500 |
| F_z (N) | 1170 | 845 | 2100 | 1700 |
| M_x (Nm) | 20 | 13 | 85 | 60 |
| M_y (Nm) | 78 | 65 | 140 | 110 |
| M_z (Nm) | 52 | 39 | 110 | 90 |
| All forces and torques related to the following: | | | | |
| existing values | $\frac{F_y}{F_{y_{dyn}}} + \frac{F_z}{F_{z_{dyn}}} + \frac{M_x}{M_{x_{dyn}}} + \frac{M_y}{M_{y_{dyn}}} + \frac{M_z}{M_{z_{dyn}}} \leq 1$ | | | |
| table values | | | | |
| No-load torque | | | | |
| Nm | 0,6 | | 0,8 | |
| Speed | | | | |
| (m/s) max | 6 | | 10 | |
| Tensile force | | | | |
| permanent (N) | 1050 | | 1900 | |
| 0,2 s (N) | 1150 | | 2090 | |
| Geometrical moments of inertia of aluminium profile | | | | |
| I_x mm ⁴ | 4,47x10 ⁵ | | 15,83x10 ⁵ | |
| I_y mm ⁴ | 5,59x10 ⁵ | | 20,68x10 ⁵ | |
| Elastic modulus N/mm ² | 70000 | | 70000 | |

Deflection:

$$f = \frac{F \cdot L^3}{E \cdot I \cdot 192}$$

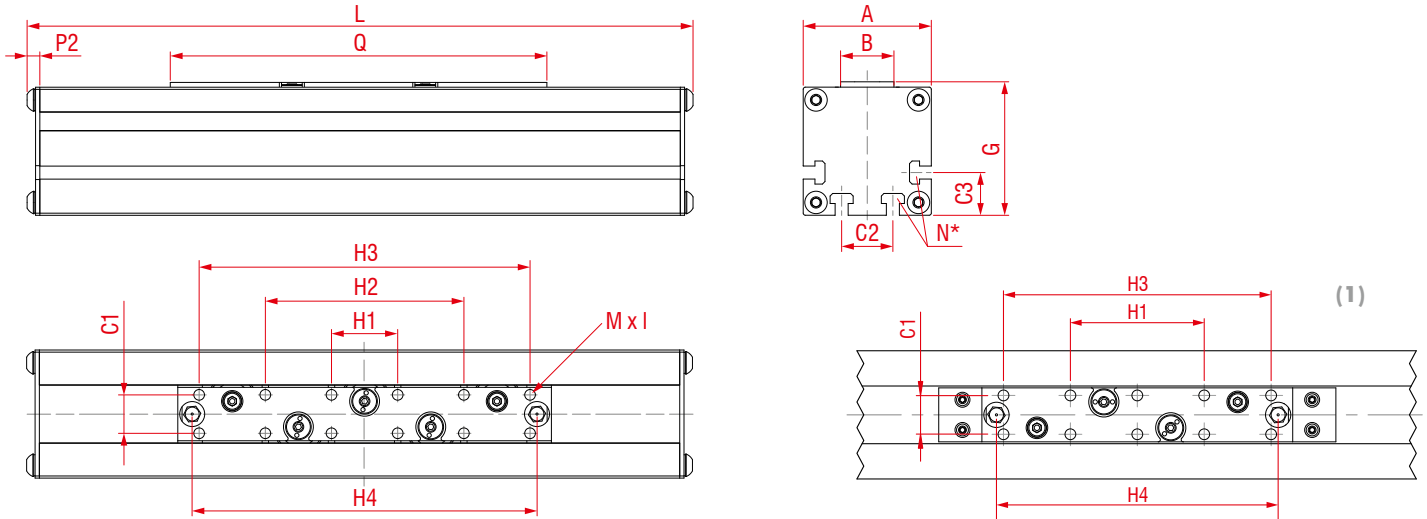


f = deflection (mm)
 F = load (N)
 L = free length (mm)
 E = elastic modulus 70000 (N/mm²)
 I = second moment of area (mm⁴)

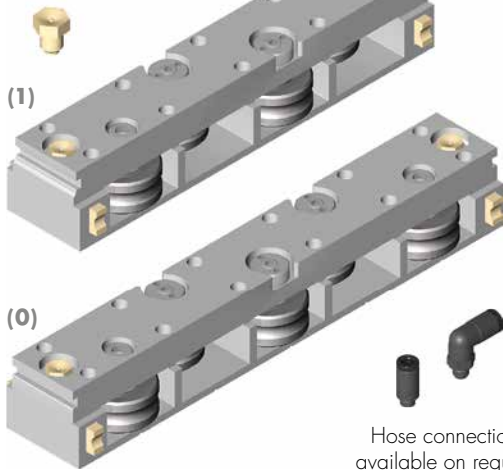
For life-time calculation of rollers use our homepage.

Positioning system LLR 60, 80

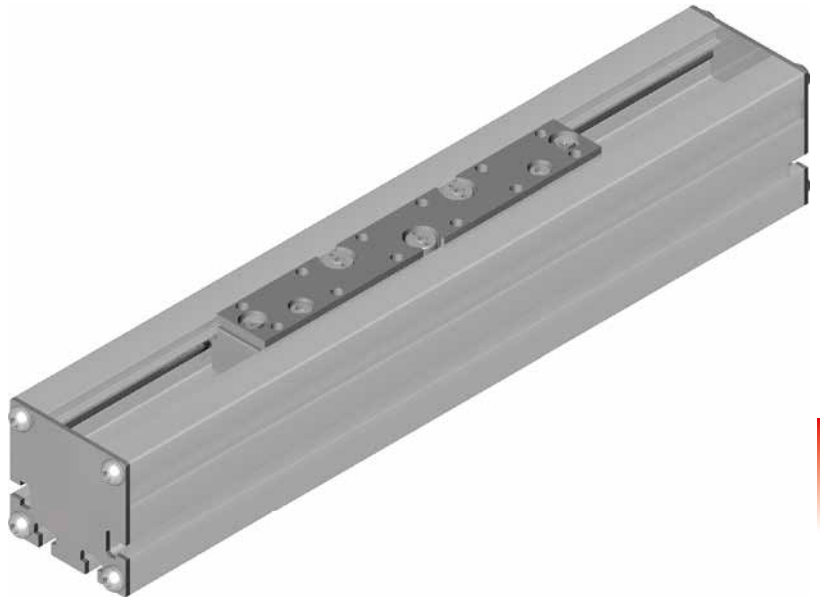
Dimensions (mm)



2 cupped-type lubricating nipples for each carriage



Hose connections available on request.



11.1

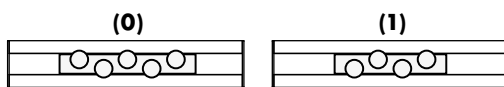
*For slide nuts refer to chapter 2.2 page 2

| Size □ | Basic length L | A □ | B | C1 | C2 | C3 | G | H1 | H2 | H4 | M x l | N for | P2 | Q | Basic weight | Weight per 100 mm |
|--------|----------------|-----|----|----|----|----|------|----|-----|-------|-------|-------|----|-----|--------------|-------------------|
| LLR 60 | 187 | 60 | 25 | 18 | 24 | 20 | 62,5 | 31 | 93 | 161,5 | M6 | M5 | 6 | 175 | 1,145 kg | 0,377 kg |
| LLR 80 | 287 | 80 | 25 | 18 | 30 | 22 | 83 | 40 | 120 | — | M6 | M6 | 9 | 260 | 4,006 kg | 0,730 kg |

0 Choice of guide body profile:

- (0) Standard (2) corrosion-protected guide rods and screws
- (4) expanded corrosion-protected version (depending on the availability of components)

0 Choice of carriages:



| Size | Carriage | L | Q | H1 | H2 | H3 | H4 |
|------|-------------|-----|-----|----|-----|-----|-------|
| 60 | Version (0) | 187 | 175 | 31 | 93 | 155 | 161,5 |
| 60 | Version (1) | 158 | 144 | 62 | — | 124 | 130,5 |
| 80 | Version (0) | — | — | — | — | — | — |
| 80 | Version (1) | 278 | 260 | 40 | 120 | — | — |

LLR 60 0 0 0 0 0 0 0 0 01500 — Basic length + stroke = total length

Pos. 1 2 3 4 5 6 7

Sample ordering code:

LLR60, standard body profile, carriage (0), 1312 mm stroke

