

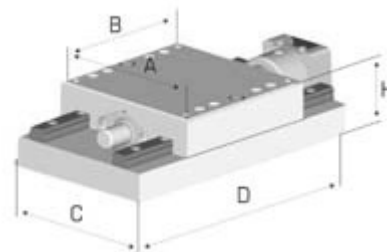
Linear Stage 5101.10

- multi-axis positioning systems possible by simple combination of stages
- wear resistant delta bronze spindle nut
- mounting of drive spindle free of play
- optionally available with precision ball-roll, thread-roll or ground thread spindle
- use of low-friction guides results in optimum fine adjustment due to high reproducibility of minimum system step distance
- use of stress-relieved, highly resilient materials guarantees high system stability and long life
- robust surfaces through galvanic natural-anodising treatment
- three precision configurations

Modularly individually configurable:

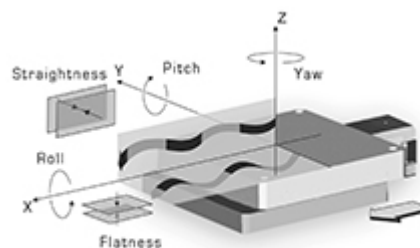
- from basic model to high-end system
- to multi-axis systems
- with individual travel range
- with customer-specific hole pattern

Dimensionen [mm]:



| A: | B: | C: | D: | H: |
|----|----|----|-----|----|
| 80 | 80 | 80 | 144 | 35 |

Precision configurations:



| | X1 | X2 | XE |
|--|----------|----|------------|
| Accuracy [μm]: | (+/-) 20 | 15 | on request |
| Repeatability (unidir.) [μm]: | (+/-) 3 | 2 | on request |
| Reversal error [μm]: | 8 | 4 | on request |
| Flatness [μm]: | (+/-) 3 | 2 | 2 |
| Straightness [μm]: | (+/-) 3 | 2 | 2 |
| Yaw ["]: | (+/-) 6 | 4 | 4 |
| Pitch ["]: | (+/-) 9 | 5 | 5 |
| Roll ["]: | (+/-) 9 | 5 | 5 |

Application specific versions:

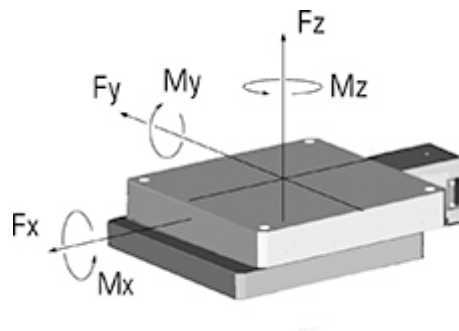
- vacuum suitable
- antimagnetic
- radiation resistant
- in black

Specifications:

| | |
|---------------------------------|-----------|
| Travel range [mm]: | 60* |
| Material (base/slide): | Aluminium |
| Spindle pitch [mm]: | 1 |
| Max. load $F_z \downarrow$ [N]: | 1200 |
| Min. drive torque [Nm]: | 0.1 |
| Stiffness ["/Nm]: | 4 |
| Weight [kg]: | 1 |

* optional: extended or shortened travel range

Maximum load:



| | |
|------------|-----|
| F_x [N]: | 130 |
|------------|-----|


| | |
|-----------|------|
| Fy [N]: | 150 |
| Fz ↑ [N]: | 950 |
| Fz ↓ [N]: | 1200 |
| Mx [Nm]: | 25 |
| My [Nm]: | 15 |
| Mz [Nm]: | 10 |

$$S = \frac{1}{\frac{F_y}{F_{y \max}} + \frac{F_z}{F_{z \max}} + \frac{M_x}{M_{x \max}} + \frac{M_y}{M_{y \max}} + \frac{M_z}{M_{z \max}}}$$

For the safety S must apply: $S \geq 1^*$

*For the calculation of the single maximum forces, safety factors have already been taken into account.

Accessories:

| | |
|---|-------------------------|
| Motors: | 2-/5-Phase Servo/DC |
| Hand wheels: | 0032 |
| Gear boxes: | 2042.10* 2042.20* |
| Limit switches: | included |
| Adjustable limit switches: | optional |
| Zero-point control: | 9100 |
| Encoder  : | incremental absolute |
| Control system: | 9300 |

* adaptor required: M301.301-001

