

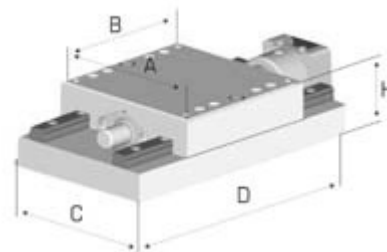
## Linear Stage 5101.10

- 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:

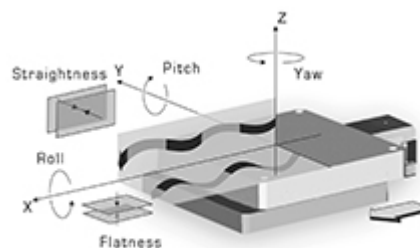
- from basic model to high-end system
- to multi-axis systems
- with individual travel range
- with customer-specific hole pattern

## Dimensionen [mm]:



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

## Precision configurations:



	X1	X2	XE
Accuracy [ $\mu\text{m}$ ]:	(+/-) 20	15	on request
Repeatability (unidir.) [ $\mu\text{m}$ ]:	(+/-) 3	2	on request
Reversal error [ $\mu\text{m}$ ]:	8	4	on request
Flatness [ $\mu\text{m}$ ]:	(+/-) 3	2	2
Straightness [ $\mu\text{m}$ ]:	(+/-) 3	2	2
Yaw ["]:	(+/-) 6	4	4
Pitch ["]:	(+/-) 9	5	5
Roll ["]:	(+/-) 9	5	5

### Application specific versions:

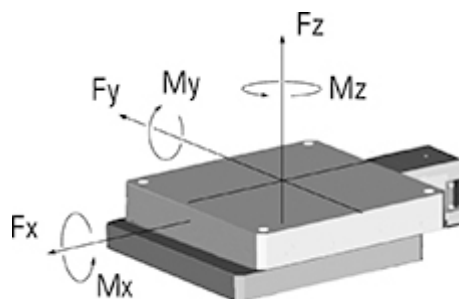
- vacuum suitable
- antimagnetic
- radiation resistant
- in black

### Specifications:

Travel range [mm]:	60*
Material (base/slide):	Aluminium
Spindle pitch [mm]:	1
Max. load $F_z \downarrow$ [N]:	1080
Min. drive torque [Nm]:	0.1
Stiffness ["/Nm]:	4
Weight [kg]:	1

\* optional: extended or shortened travel range

### Maximum load:



$F_x$  [N]: 120

Fy [N]:	280
Fz ↑ [N]:	1080
Fz ↓ [N]:	1080
Mx [Nm]:	29
My [Nm]:	22
Mz [Nm]:	18

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

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:

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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 <b>XE</b> :	incremental absolute
Control system:	9300

\* adaptor required: M301.301-001

