

## Linear Stage 5101.30

- multi-axis positioning systems possible by simple combination of stages
- optionally available with precision ball-roll, thread-roll or ground thread spindle
- wear resistant delta bronze spindle nut
- mounting of drive spindle free of play
- 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

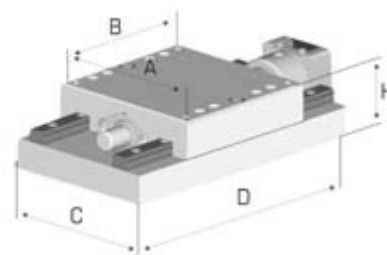
## Modularly individually configurable:

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

## Application specific versions:

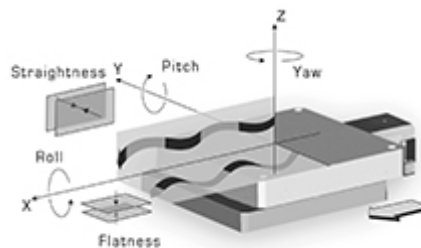
- vacuum suitable
- antimagnetic
- radiation resistant
- in black

## Dimensions [mm]:



A:	B:	C:	D:	H:
151	150	150	274	62

## Precision configurations:



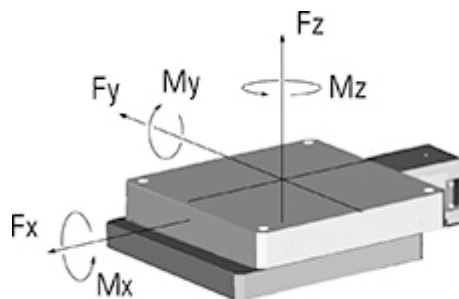
		X1	X2	XE
Accuracy [ $\mu\text{m}$ ]:	(+/-) 10	4	on request	
Repeatability (unidir.) [ $\mu\text{m}$ ]:	(+/-) 3	2	on request	
Reversal error [ $\mu\text{m}$ ]:	6	4	on request	
Flatness [ $\mu\text{m}$ ]:	(+/-) 3	2	2	
Straightness [ $\mu\text{m}$ ]:	(+/-) 3	2	2	
Yaw ["]:	(+/-) 6	4	4	
Pitch ["]:	(+/-) 6	4	4	
Roll ["]:	(+/-) 6	4	4	

## Specifications:

Travel range [mm]:	100*
Material (base/slide):	Aluminium
Spindle pitch [mm]:	2
Max. load $F_z \downarrow$ [N]:	2970
Min. drive torque [Nm]:	0.6
Stiffness ["/Nm]:	0.7
Weight [kg]:	5.5

\* optional: extended or shortened travel range

## Maximum load:



Fx [N]:	150
Fy [N]:	340
Fz↑ [N]:	1810
Fz↓ [N]:	2970
Mx [Nm]:	100
My [Nm]:	96
Mz [Nm]:	52

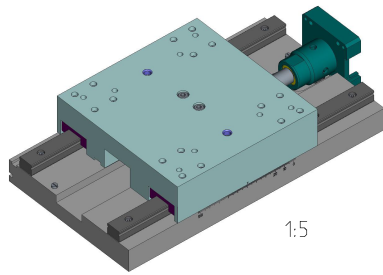
$$S = \frac{1}{\frac{F_y}{F_{y \max}} + \frac{F_z}{F_{z \max}} + \frac{M_x}{M_{x \max}} + \frac{M_y}{M_{y \max}} + \frac{M_z}{M_{z \max}}}$$

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-/3-/5-Ph. Servo/DC
Hand wheels:	0056
Gear boxes:	2056.05 2056.10 2056.20
Limit switches:	included
Adjustable limit switches:	optional
Zero-point control:	9100
Encoder <b>XE</b> :	incremental absolute
Control system:	9300



1.5

