

# Compact-XY-Stages

## KDT 380



### Technical Data



		KDT 380-155-DC		
		-R	-L	-Lx
Travel	[mm]	155 x 155	155 x 155	100 x 100
Accuracy	[ $\mu\text{m}$ ]	10	1 (error compensation)	1 (error compensation)
Repeatability	[ $\mu\text{m}$ ]	$\pm 1$	$\pm 0.3$	$\pm 0.05$
Backlash	[ $\mu\text{m}$ ]	< 3	0.2	0.2
Relative deviation from straightness / flatness - over total length	[ $\mu\text{m}$ ]	$\pm 2$	$\pm 2$	$\pm 2$
Max. speed *	[mm/s]	50 (100)	50 (100)	10 (50)
Max. acceleration *	[m/s <sup>2</sup> ]	0.5	0.5	0.1
Permissible loads	I Fz [N]	200	200	200
Clear aperture	[mm]	170	170	170
Weight	[kg]	15	15	15

Parameters refer to single axis measurement. \* depending on motor  
For more information please see definitions on pages 98,99.

### Specifications

#### ■ DC motor

Nominal voltage 24 V

#### ■ Precision recirculating ball screw

Screw diameter 8 mm  
Screw pitch 1 mm (2 mm)

#### ■ Rotary encoder -R

Pulses per rotation 500

#### ■ Incremental linear encoder -L

Resolution 0.1  $\mu\text{m}$

#### ■ Travel limitation

adjustable limit switches (Hall switches)

#### ■ Cabling

15-pin SUB-D connectors, cable outlets at one spot (selectable)

#### ■ Bearing

backlash-free preloaded cross roller bearings

#### ■ Material

low distortion aluminum alloy, black anodized

## Options

- Resolution: up to 5 nm
- Extraordinary repeatability -Lx  
(resolution 0.1  $\mu\text{m}$ ...5 nm - programmable)
- Available as single axis

## Dimensions

**KDT 380-155-DC**  
slide in middle position

