

# Compact-XY-Stages

## KDT 235, KDT 310



### Technical Data



		KDT 235-50-DC		KDT 310-100-DC	
		-R	-L	-R	-L
Travel	[mm]	50 x 50	50 x 50	100 x 100	100 x 100
Accuracy	[ $\mu$ m]	10	3*	10	3*
Repeatability	[ $\mu$ m]	$\pm 1$	$\pm 0.3$	$\pm 1$	$\pm 0.3$
Backlash	[ $\mu$ m]	< 3	0.2	< 3	0.2
Relative deviation from straightness / flatness - over total length	[ $\mu$ m]	$\pm 5$	$\pm 5$	$\pm 10$	$\pm 10$
Max. speed**	[mm/s]	100	100	100	100
Max. acceleration**	[mm/s <sup>2</sup> ]	500	500	500	500
Permissible loads	Fx [N]	30	30	30	30
	Fy [N]	30	30	30	30
	Fz [N]	200	200	200	200
Clear aperture	[mm]	150	150	150	150
Weight	[kg]	10	10	10	10

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

### Specifications

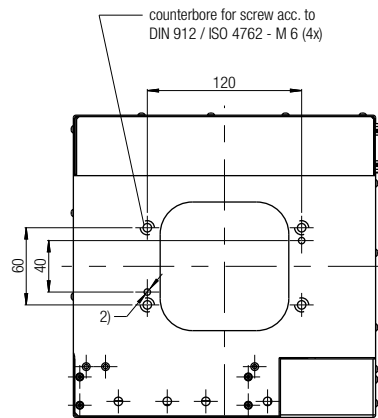
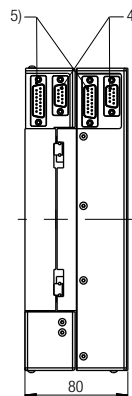
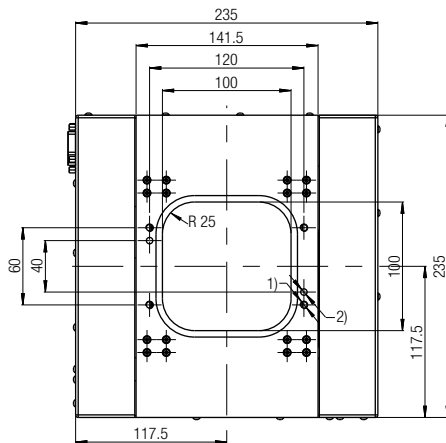
<ul style="list-style-type: none"> <li>■ <b>DC motor</b> Nominal voltage 24 V</li> <li>■ <b>Precision recirculating ball screw</b> Screw diameter 6 mm Screw pitch 2 mm (1 mm)</li> <li>■ <b>Rotary encoder -R</b> Pulses per rotation 500</li> <li>■ <b>Incremental linear encoder -L</b> Resolution 0.1 <math>\mu</math>m</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Travel limitation</b> 2 limit switches</li> <li>■ <b>Cabling</b> 15-pin SUB-D connector; different connectors for encoder and motors (Terminal)</li> <li>■ <b>Bearing</b> backlash-free preloaded cross roller bearings</li> <li>■ <b>Material</b> low distortion aluminum alloy, black anodized</li> </ul>
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## Options

- Stepper motor
- Connector location
- Different mounting plate
- Different hole patterns

## Dimensions

### KDT 235-50-DC



slides in middle position

- 1) M 6 ; depth 9 (4x)
- 2)  $\emptyset$  5 H7 ; depth 6 (2x)
- 3)  $\emptyset$  6 H7 ; depth 6 (2x)
- 4) 9-pin SUB-D connector (2x)
- 5) 15-pin SUB-D connector (2x)

### KDT 310-100-DC

