

KDT235

Precise XY scanning stage

Scanning stage with large aperture

The space-saving design and large aperture characterize these robust XY stage. High precision ball screws and adjustable orthogonality ensure highly precise positioning and running accuracies.

- Ideal for microscopy, optical inspection systems and laser processing
- High-precision repeatability up to 0.5 μm
- Good price-performance ratio and very long life cycle

Options:

- Available with DC motor or stepper motor
- Travel range up to 100 mm (KDT310)
- Different high resolution measuring systems
- Version for clean room and vacuum on request



Fields of application

High-resolution applications in microscopy, optical inspection systems, 3D imaging, screening, incident light measurements, transmitted light measurements, interferometry, metrology, autofocus systems, biotechnology, semiconductor testing

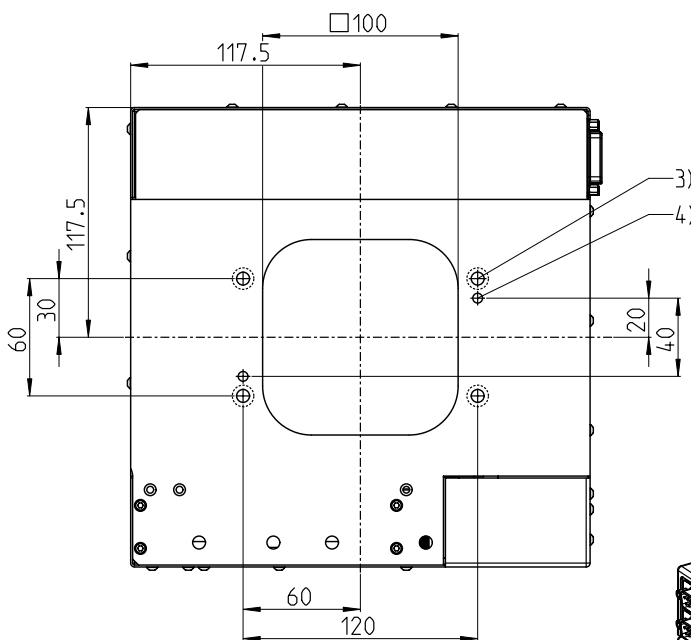
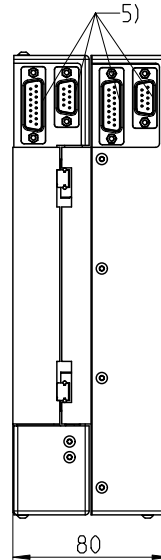
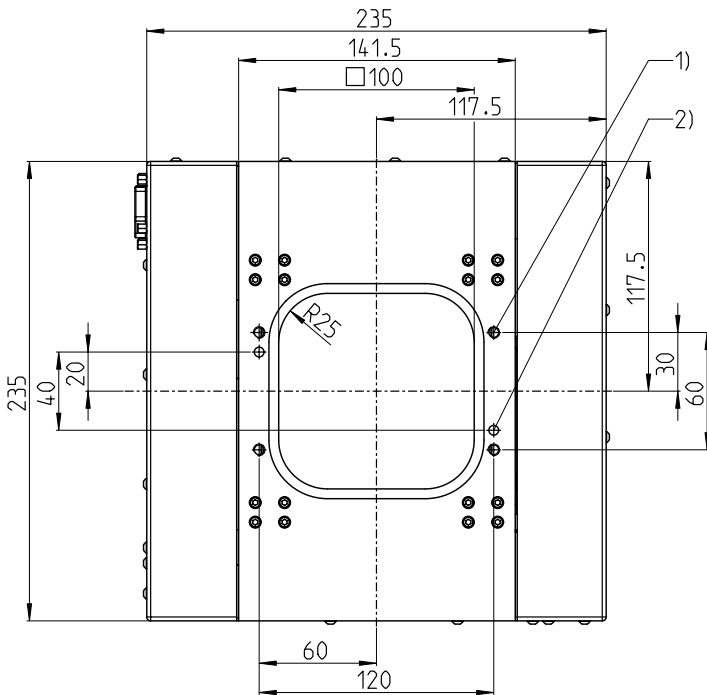
Recommended Motion Controllers

- FMC220 (24 V)
- FMC 250/280 (48 V / 80 V)
- FMC400/450 (48 V / 80 V Bahn)
- Integration into ACS architectures
- Integration into PLC architectures

Specifications

KDT235		-50-DC-R	-50-DC-L	-50-SM
Travel	[mm]	50	50	50
Repeatability unidirectional	[μm]	± 2	± 0.5	± 1.6
Repeatability bidirectional	[μm]	± 2.5	± 0.7	± 2.1
Accuracy	[μm]	± 7.4	± 2.3	± 7.1
Flatness	[μm]	± 3.5	± 3.5	± 3.5
Straightness	[μm]	± 2.5	± 2.5	± 2.5
Positioning speed	[mm/s]	30	30	10
Max. speed	[mm/s]	60	60	20
Max. acceleration	[m/s ²]	0.5	0.5	0.2
Max. load Fx	[N]	45	45	45
Max. load Fy	[N]	45	45	45
Max. load Fz	[N]	85	85	85
Max. torque Mx	[Nm]	5.2	5.2	5.2
Max. torque My	[Nm]	5.2	5.2	5.2
Max. torque Mz	[Nm]	7.2	7.2	7.2
Pitch	[μrad]	± 110	± 110	± 110
Yaw	[μrad]	± 70	± 70	± 70
Weight	[kg]	10	10	10
Length	[mm]	235	235	235
Width	[mm]	235	235	235
Height	[mm]	80	80	80
Aperture	[mm]	100 x 100	100 x 100	100 x 100
Motor		DC-Motor	DC-Motor	Stepper Motor
Feedback		Motor-Encoder	Linear Scale	Open Loop

Dimensions / Interface



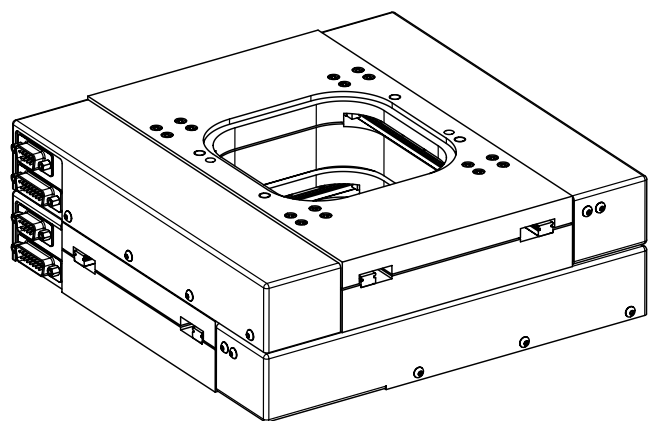
*) positional accuracy between fits: $\oplus 0.02$

- 1) M6; depth 10 (4x)
- 2) $\varnothing 5H7$; depth 5 (2x)

- 3) counterbore for screw DIN 912 / ISO 4782 - M6 (4x) used from top-side
- 4) $\varnothing 5H7$; depth 6 (2x)

- 5) terminal (number and types of connectors depending on selected equipment)

requirement on mounting surfaces: flatness 0.02 mm



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