MT95
Miniature Linear Stage

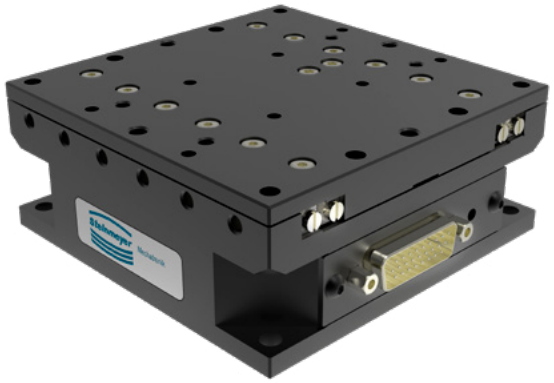
Steinmeyer
Mechatronik

Compact positioner with internal motor

Thanks to its cross roller bearings, the MT95 miniature linear stage provides excellent straightness and flatness. The drive is redirected with a toothed belt transmission and could thus be completely accommodated in the axis.

- Ideal for small installation spaces (95 x 95 x 40 mm)
- Repeatability up to ± 1.5 µm
- Easily stackable to compact multi-axis systems

Options:
- Available with DC motor or stepper motor
- 3-axis compact unit: MP95-3
- Version for clean room and vacuum on request



Fields of application

Positioning in small spaces e.g. incubators, fiber positioning, camera and microscope positioners, aligners for vacuum chambers, setup of minimum space XYZ multi-axis systems, manipulator for industry and research, compact clean room positioning systems, wafer prober alignment

XY-Combination MP95-2
Dimension 95 x 95 x 80 mm
Stroke 40 x 40 mm

XYZ Combination MP95-3
Dimension 145 x 95 x 130 mm
Stroke 40 x 40 x 40 mm

Recommended Motion Controllers

- FMC 220 (24 V)
- FMC 400/450 (48 V / 80 V track)
- Integration into ACS architectures
- Integration into PLC architectures

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Specifications

MT95		-40-DC-R	-40-SM
Travel	[mm]	40	40
Repeatability unidirectional	[µm]	± 1.5	± 2.1
Repeatability bidirectional	[µm]	± 3.5	± 4.1
Accuracy	[µm]	± 4.8	± 5.4
Flatness	[µm]	± 2	± 2
Straightness	[µm]	± 1.4	± 1.4
Positioning speed	[mm/s]	1.1	5.8
Max. speed	[mm/s]	2.2	11.6
Max. acceleration	[m/s^2]	0.02	0.1
Max. load Fx	[N]	30	30
Max. load Fy	[N]	65	65
Max. load Fz	[N]	65	65
Max. torque Mx	[Nm]	3.2	3.2
Max. torque My	[Nm]	1.3	1.3
Max. torque Mz	[Nm]	1.1	1.1
Pitch	[µrad]	± 65	± 65
Yaw	[µrad]	± 40	± 40
Weight	[kg]	0.8	0.8
Length	[mm]	95	95
Width	[mm]	95	95
Height	[mm]	40	40
Motor		DC-Motor	Stepper Motor
Feedback		Motor-Encoder	Open Loop

Specifications are subject to change. Values are for the single axis with our controller. Parameters shown here are typical values for a standard configuration. By customization and given in depth knowledge of your application significantly improved values can be achieved. Please contact us.

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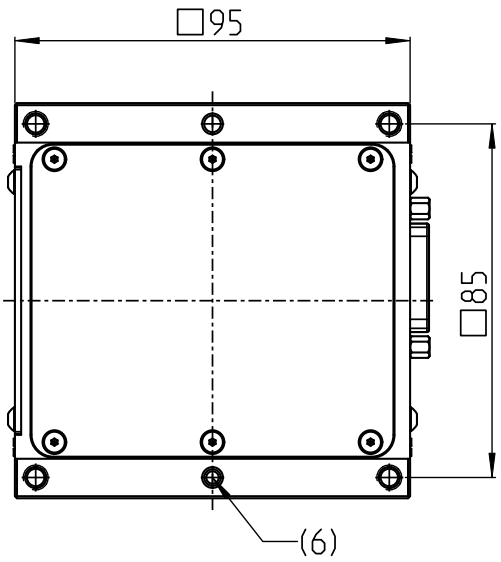
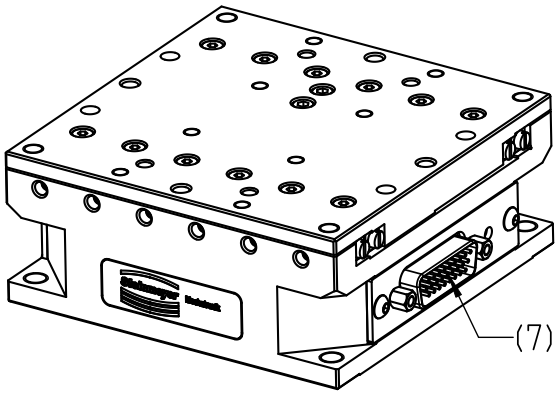
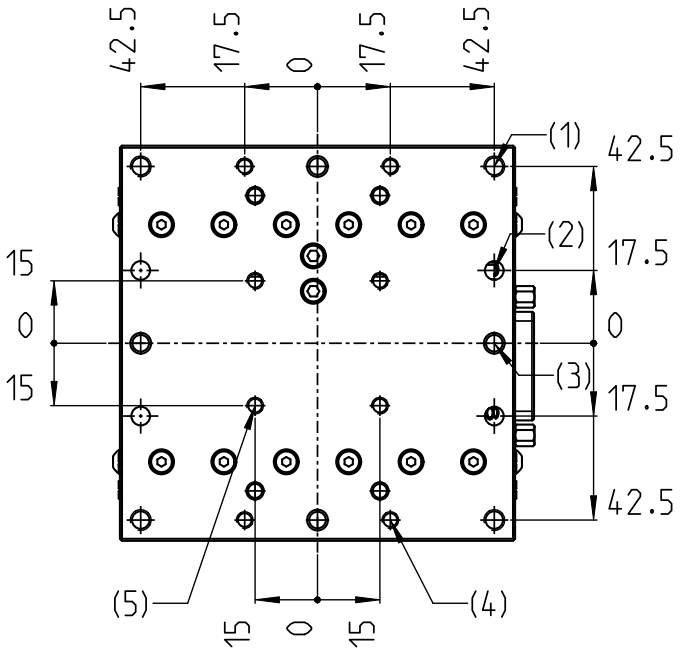
Dimensions / Interface







*) positional accuracy between fits: ⌖ 0.04

1) M5; max depth 4 (4x)
2) counterbore for screw DIN 912 / ISO 4782
   M4 (4x) used from top-side
3) ∅ 4G7; max depht 4 (4x)
4) M4; max depth 4 (4x)
5) M4; max depth 8 (4x)
6) ∅ 4H7; max depht 8 (2x)
7) terminal (number and types of connectors
   depending on selected equipment)

requirement on mounting surfaces: flatness 0.01 mm

drawingscale: 3:5
metric system (mm)

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