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MOTION CONTROL & OPTICS **USA**

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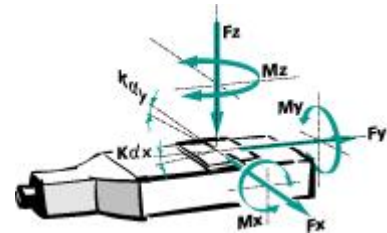
Micro Stage MT-60

Mini Positioners






Key features

- Travel range 40 mm
- Recirculating ball screw
- High Resolution up to 0.02216 μm
- Maximum speed 15 mm/sec
- Load capacity 1.5 kg
- Crossed-roller bearings
- Special, tempered Aluminium
- Limit switches integrated
- Module combination



FACTS

Load Characteristics	Fx (N)	Fy (N)	Fz (N)	Mx (Nm)	My (Nm)	Mz (Nm)	kax ($\mu\text{rad/Nm}$)	kay ($\mu\text{rad/Nm}$)
DC-B-010 	7.5	5	15	0.7	1.6	0.7	90	40
2Phase-010 	7.5	5	15	0.7	1.6	0.7	90	40
2Phase-025 	7.5	5	15	0.7	1.6	0.7	90	40

DESCRIPTION

The **Micro Stages MT-60** are suited for precision positioning of small structural elements with longer travel ranges. Typical applications are positioning - inspection equipment in the field of fiber optics and semiconductor technology. With help of mounting plates (see accessories) the stages

can be space-saving configured as XY - XYZ assemblies. The Micro Stage MT-60 is equipped with prestressed, zero-backlash crossed roller bearings. A precision ground recirculating ball screw realizes resolutions up to 0.054µm (SMC). Directly driven with a 2-phase-step motor without gear or with DC- and 2-phase-gear motors. Especially significant is the good smooth move and the high resolution of the Micro Stage MT-60. The travel range amounts to 40mm. All Micro Stages are standard equipped with two limit switches.



MT-60 & MP-mini

Technical data

Travel Range (mm)	40
Bi-directional Repeatability (µm)	+/- 2
Uni-directional Repeatability (µm)	+/- 0.2
Accuracy per 5 mm (µm)	+/- 8
Velocity Range (mm/sec)	0.001 ... 15
Straightness / Flatness (µm)	+/- 2.5
Pitch (µrad)	+/- 180
Yaw (µrad)	+/- 180
Ballscrew Pitch (mm)	1

Speed max. (mm/sec)	
<u>DC-B-010</u>	3.5
<u>2Phase-010</u>	0.6
<u>2Phase-025</u>	15

Resolution Open-Loop (µm)	
<u>2Phase-010</u>	0.054902 (SMC) 0.54902 (FS)
<u>2Phase-025</u>	0.1 (SMC) 5 (FS)

Resolution Closed-Loop (µm)	
<u>RE-005, Rotary encoder feedback</u>	0.02216

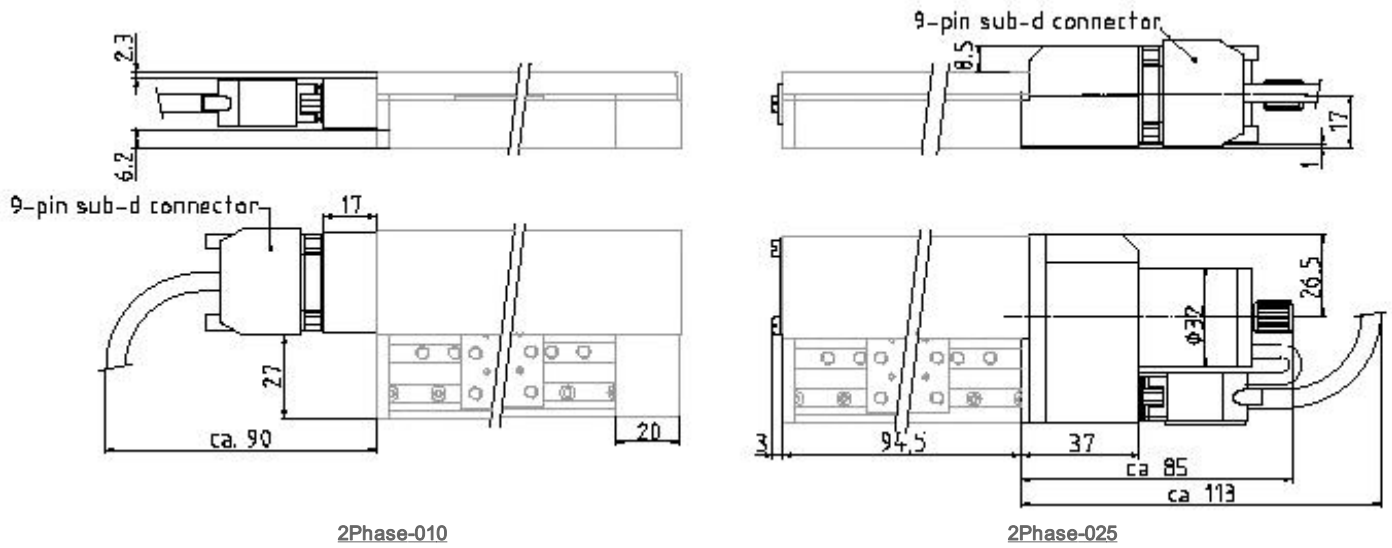
Current (Amps) / Voltage (Volts)	
<u>DC-B-010</u>	0.32 12
<u>2Phase-010</u>	0.25 -

Material	Tempered Aluminium, black anodized
Weight (kg)	0.25

Note: (SMC): Micro-Step Mode, (FS): Full-Step 2Phase

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MT-60 Motors



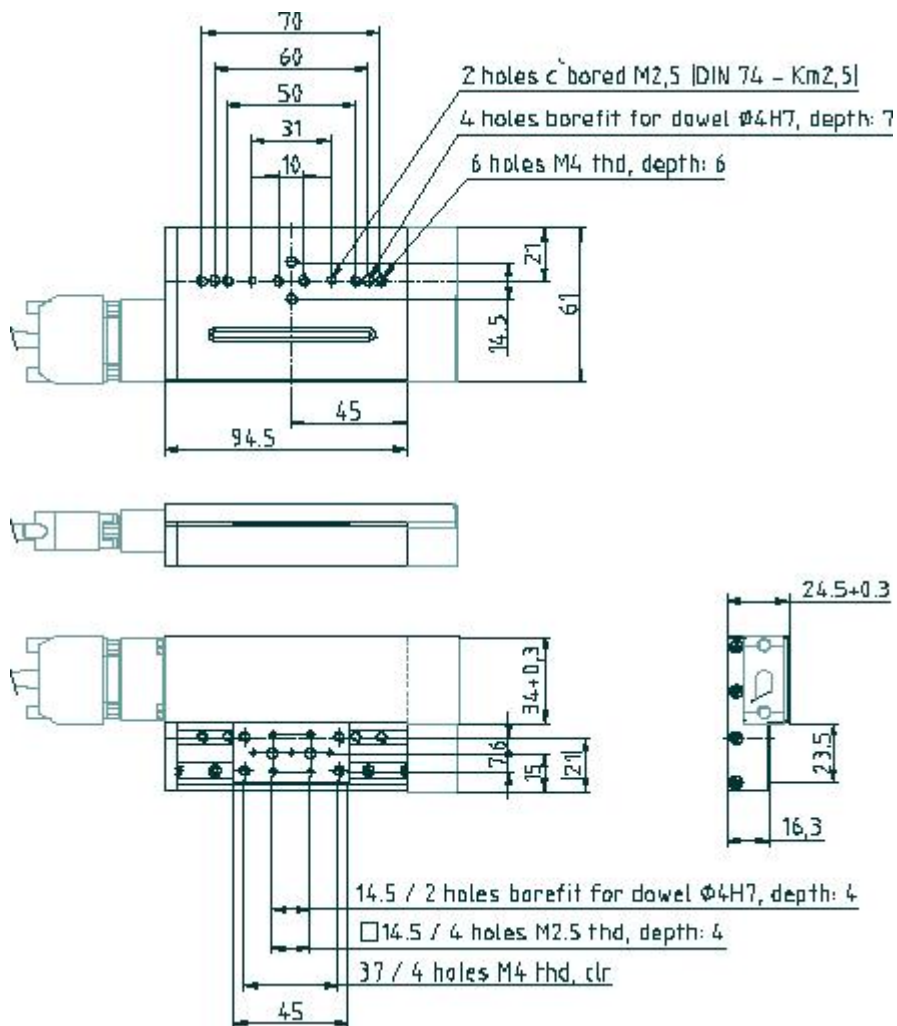
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MT-60 Base

Travel range

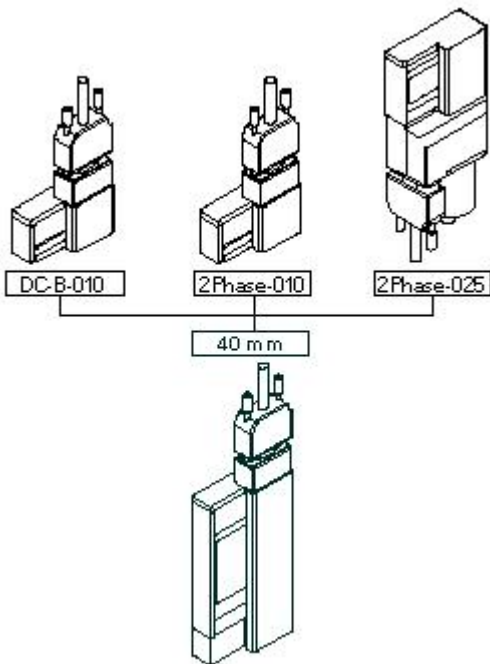
40 mm

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MT-60 Ordering information



- | | |
|------------|---|
| DC-B-010 | 1 |
| 2Phase-010 | 2 |
| 2Phase-025 | 3 |

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