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MOTION CONTROL & OPTICS **USA**

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MICOS USA • 15375 BARRANCA PARKWAY • STE G101 • IRVINE • CA 92618 • PHONE 949 480 0538 • FAX 949 480 0538

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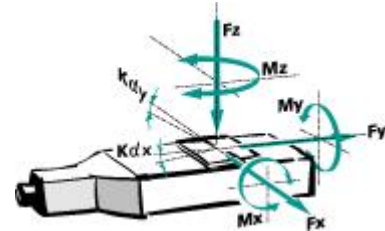
◀ 3.001 ▶ **Micro Stage MT-60**

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 0.054 μ m (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 (μ m)	+/- 2
Uni-directional Repeatability (μ m)	+/- 0.2
Accuracy per 5 mm (μ m)	+/- 8
Velocity Range (mm/sec)	0.001 ... 15
Straightness / Flatness (μ m)	+/- 2.5
Pitch (μ rad)	+/- 180
Yaw (μ rad)	+/- 180
Ballscrew Pitch (mm)	1

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

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

Resolution Closed-Loop (μm)	
RE-005 , Rotary encoder feedback	0.02216

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

2Phase-025

1.2 | -

Material

Tempered Aluminium, black anodized

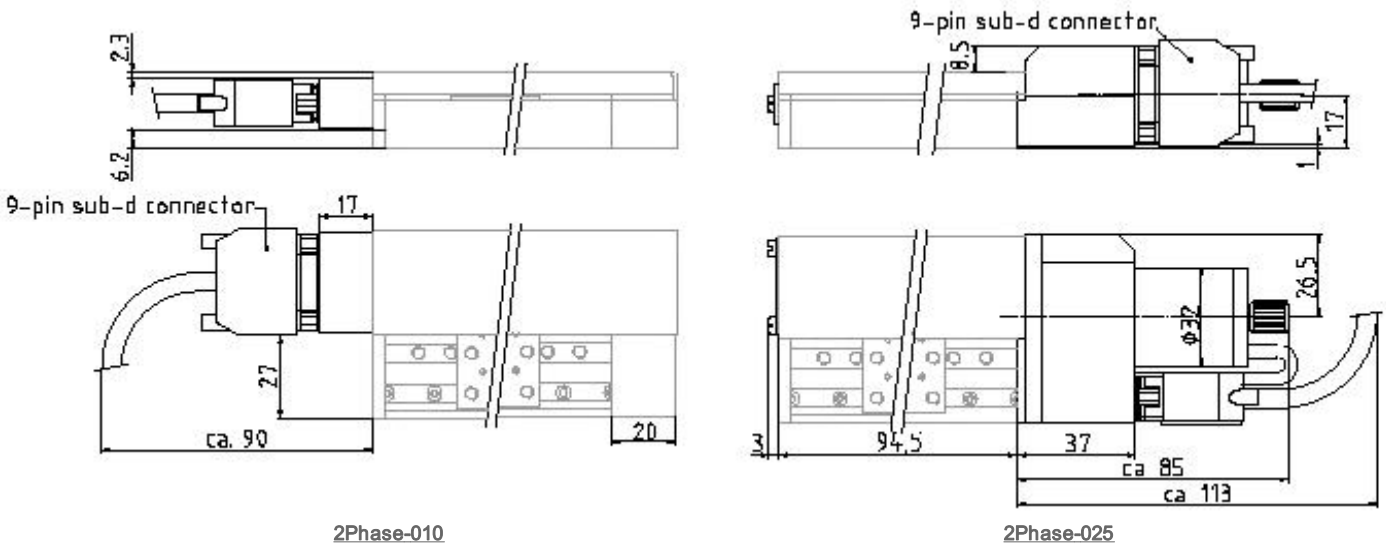
Weight (kg)

0.25

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

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MT-60 Motors



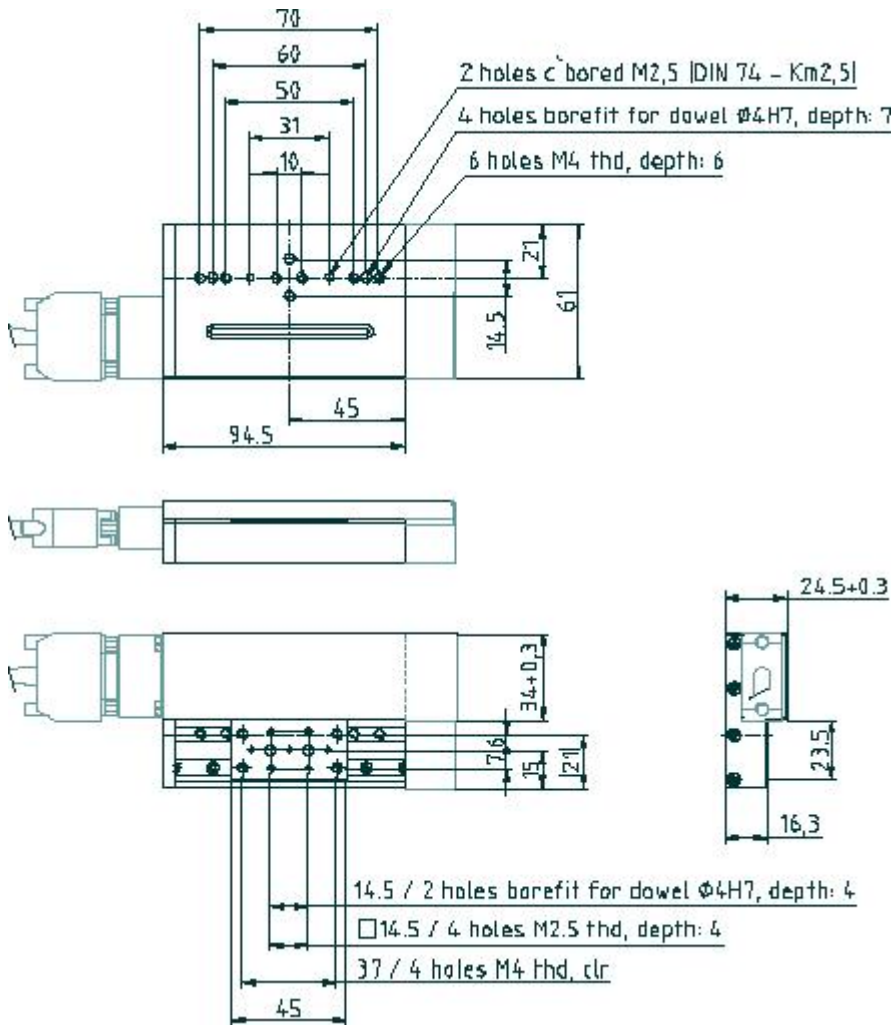
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MT-60 Base

Travel range

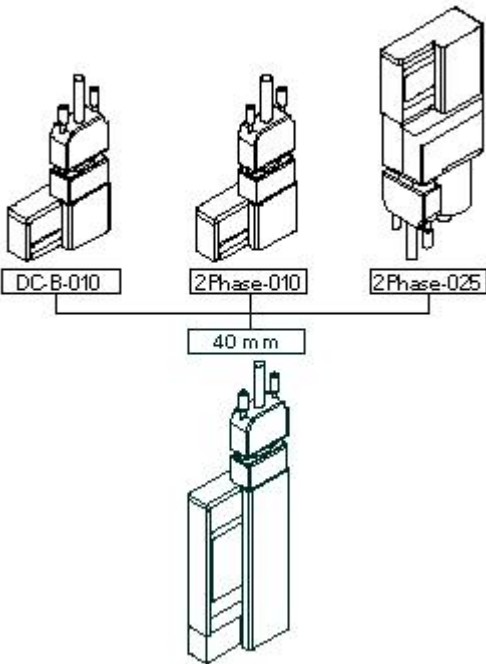
40 mm





MOTION CONTROL Systems Positioners MiniPos DirectDrives Controllers ManPos Accessories Vacuum MAC PhotonX M A C

MT-60 Ordering information



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

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