

# MICOS

MOTION CONTROL & OPTICS **USA**

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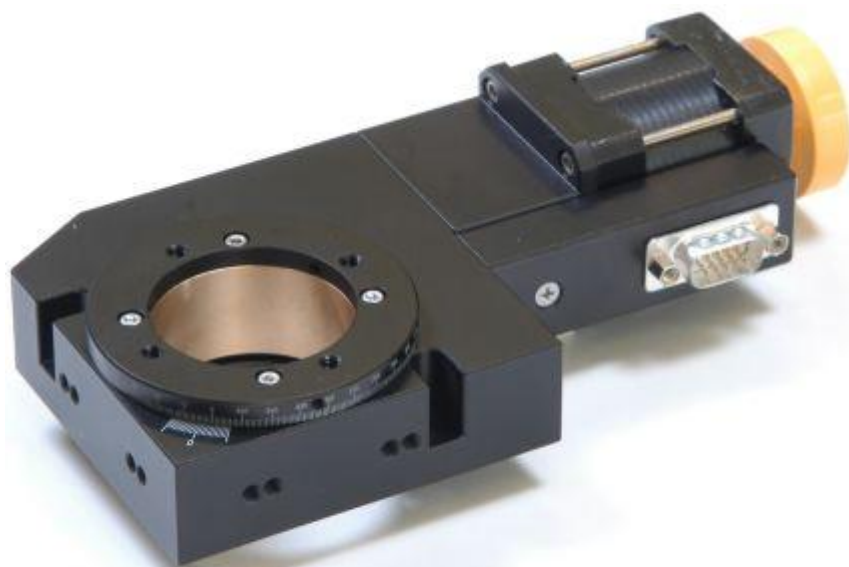
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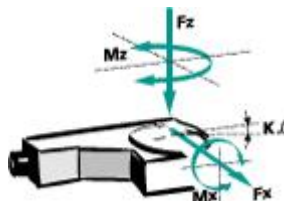
Rotation Stage DT-80

Positioners



### Key features

- EcoLine in lightweight construction
- Clear aperture 40 mm
- Rotation Range 360°, endless
- Double row ball bearings
- Reference switches integrated
- Speed up to 45°/sec
- Load up to 2 kg
- Module combination



### FACTS

Load Characteristics	Fx (N)	Fz (N)	Mx (Nm)	Mz (Nm)	ka (μrad/Nm)
<a href="#">DC-B-029</a>	10	20	5	0.1	150
<a href="#">2Phase-041</a>	10	20	5	0.1	150

### DESCRIPTION

The **Rotation Stages DT-80** of the structural series 80 are a low cost alternative to the MICOS High-Precision-Rotation Stages DT-65 and PRS-110. They are mainly employed for simple positioning and enlarge the offer of our low cost translation stages of

the structural series 80. The continuous aperture of 40 mm diameter is suitable for many applications in the range of microscopy. The screw worm, -gear wheel combination is prestressed with zero-backlash and produces a smooth move. Rotation stages of the structural series 80 directly driven by DC- and 2-phase-micro-step (SMC-series) motors are offered. Motorized rotation stages are equipped with a mechanical reference-limit switch. **More Pictures ...**



#### Technical data

<b>Rotation Range (°)</b>	<b>360, endless</b>
Worm gear reduction	180:1
Accuracy (°)	+/- 0.04
Repeatability (°)	+/- 0.008
Reversal Error (°)	0.01
Velocity Range (°/sec)	0.001 ... 45
Flatness (µm)	+/- 50
Eccentricity (µm)	+/- 30
Wobble (µrad)	+/- 100

#### Speed max. (°/sec)

<u>DC-B-029</u>	45
<u>2Phase-041</u>	30

#### Resolution Open-Loop (°)

<u>2Phase-041</u>	0.001 (SMC)   0.01 (FS)
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#### Resolution Closed-Loop (°)

<u>DC-B-029</u> , Rotary encoder feedback	0.001
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#### Current (Amps) / Voltage (Volts)

<u>DC-B-029</u>	0.46   30
<u>2Phase-041</u>	1.7   -

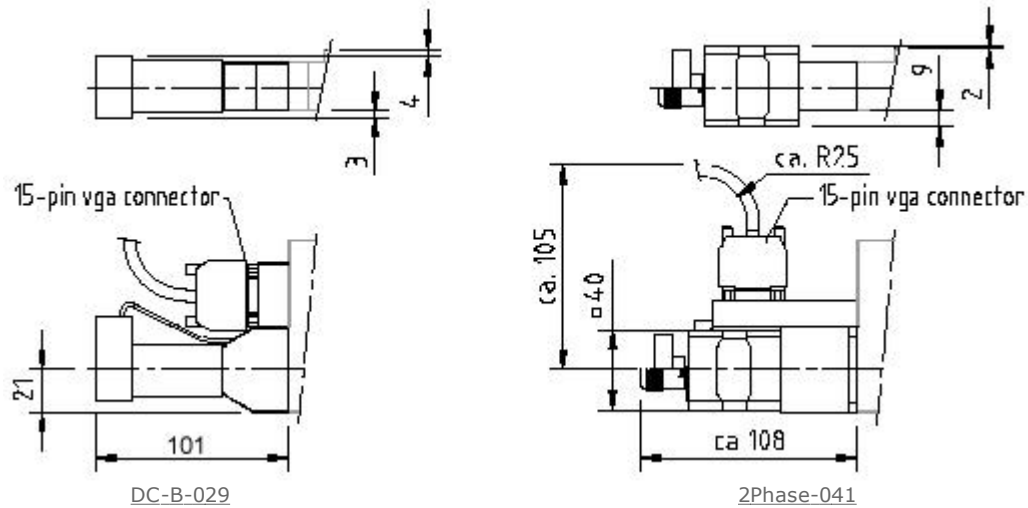
Material	black anodized
Weight (kg)	0.8

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

**More info:** Detailed information, concerning motor and connectors, see: Appendix

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

### DT-80 Motors



### DT-80 Motor & Controller



Motor & Controller System with DT-80

### VT-80 Motor & Controller



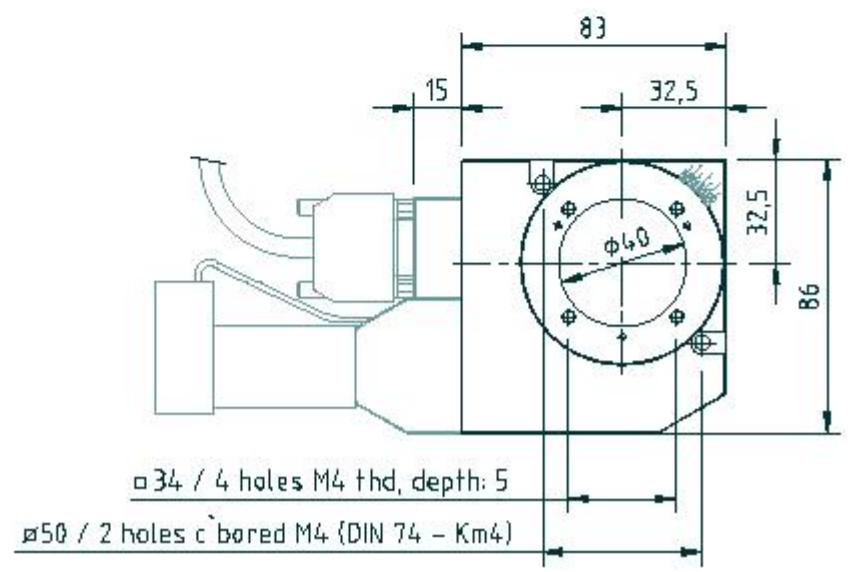
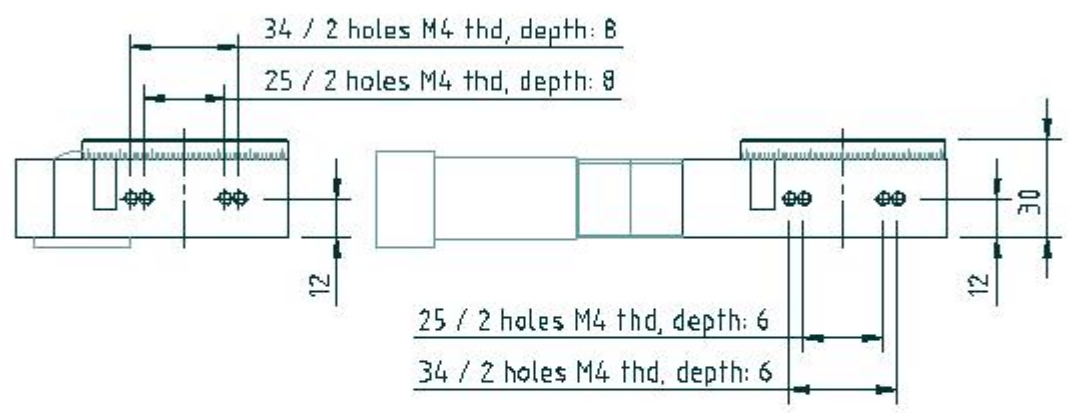
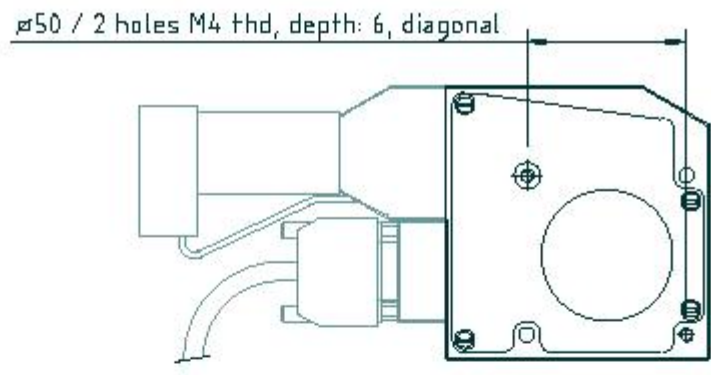
Motor & Controller System with VT-80

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### DT-80 Base



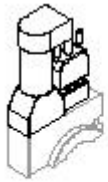
Rotation range  
360°, endless



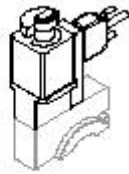
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DT-80 Ordering information

DC-B-029 1  
2Phase-041 2



DC-B-029



2Phase-041

360°, endless



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Founded in 1990, MICOS specializes in the development, manufacturing and marketing of ultra-high precision positioning components and systems for research and industry. We are experts in vacuum, ultra-high vacuum, clean room, and extreme climate environments down to 77 Kelvin.



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