

MICOS

MOTION CONTROL & OPTICS **USA**

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Page

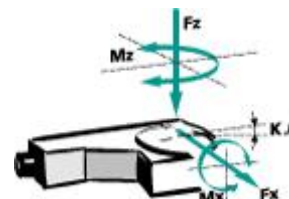
◀ 2.154 ▶ **Rotation Stage DT-80 R**

Positioners



Key features

- EcoLine in lightweight construction
- Clear aperture 40 mm
- Rotation Range 360°, endless
- Double row ball bearings
- Speed up to 1100 °/sec
- Load up to 2 kg
- Reference switches integrated (Hall sensors HLS)
- Module combination (does this mean "modular assembly")



FACTS

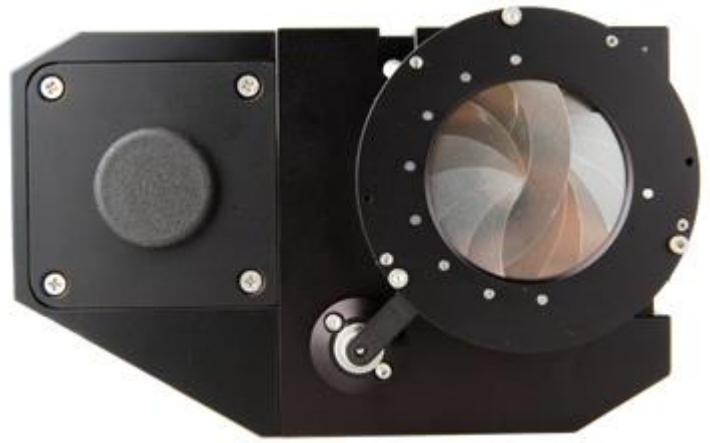
Load Characteristics	F _x (N)	F _z (N)	M _x (Nm)	M _z (Nm)	ka (μrad/Nm)
<u>2Phase-047</u>	10	20	5	0.1	150
<u>2Phase-042</u> (Pollux & Controller System)	10	20	5	0.1	150

DESCRIPTION

DT-80 R Option Iris Diaphragm 0-40 mm

The **NEW** Rotation Stage DT-80 R rotation stages of the 80 structural series are a low cost alternative to the MICOS DT-65 N and

PRS-110 high precision rotation stages. They are mainly applied for simple positioning tasks and enlarge the range of our low cost translation stages of the 80 structural series. The belt driven DT-80 R rotation stage allows a much higher speed of rotation in comparison to other stages. The continuous aperture of 40 mm diameter is suitable for many applications in the range of microscopy. The belt driven combination is prestressed with nearly zero backlash and produces a smooth move. Structural series 80 rotation stages are directly driven by 2-phase micro-step (SMC-series) or MICOS SMC Pollux motor- controller combination. DT-80 R rotation stages are equipped with reference switches (HLS).



Technical data

Rotation Range (°)	360, endless
Belt Drive Reduction	4:1
Accuracy (°)	+/- 0.1
Repeatability (°)	+/- 0.008
Reversal Error (°)	0.01
Velocity Range (°/sec)	0.001 ... 1100
Flatness (µm)	+/- 50
Eccentricity (µm)	+/- 30
Wobble (µrad)	+/- 100

Speed max. (°/sec)	
<u>2Phase-047</u>	1100
<u>2Phase-042</u>	1100

Resolution Open-Loop (°)	
<u>2Phase-047</u>	0.0025 (SMC) 0.225 (FS)
<u>2Phase-042</u>	0.0025 (SMC) 0.45 (FS)

Resolution Closed-Loop (°)	
<u>RE-005</u> , Rotary encoder feedback	0.002

Nominal Current (Amps) / Voltage (Volts)	
<u>2Phase-047</u>	1.2 -
<u>2Phase-042</u>	0.4 24

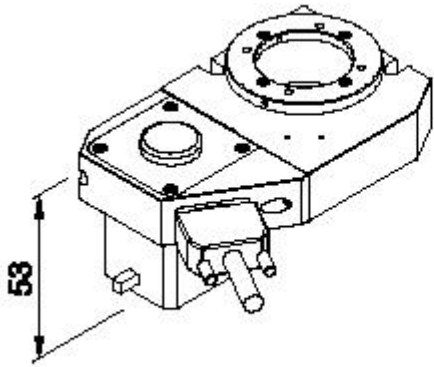
Material	black anodized aluminium
Weight (kg)	0.8

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

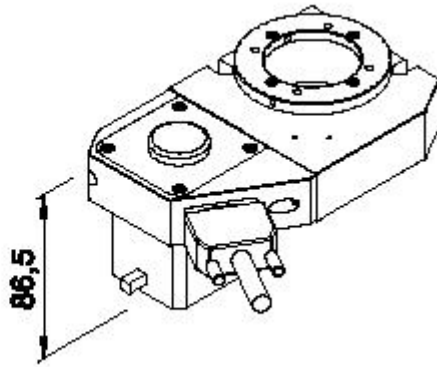
More info: Detailed information, concerning motor and connectors, see: Appendix

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

DT-80 R Motors



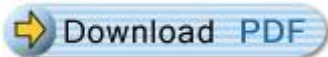
2Phase-047



2Phase-042

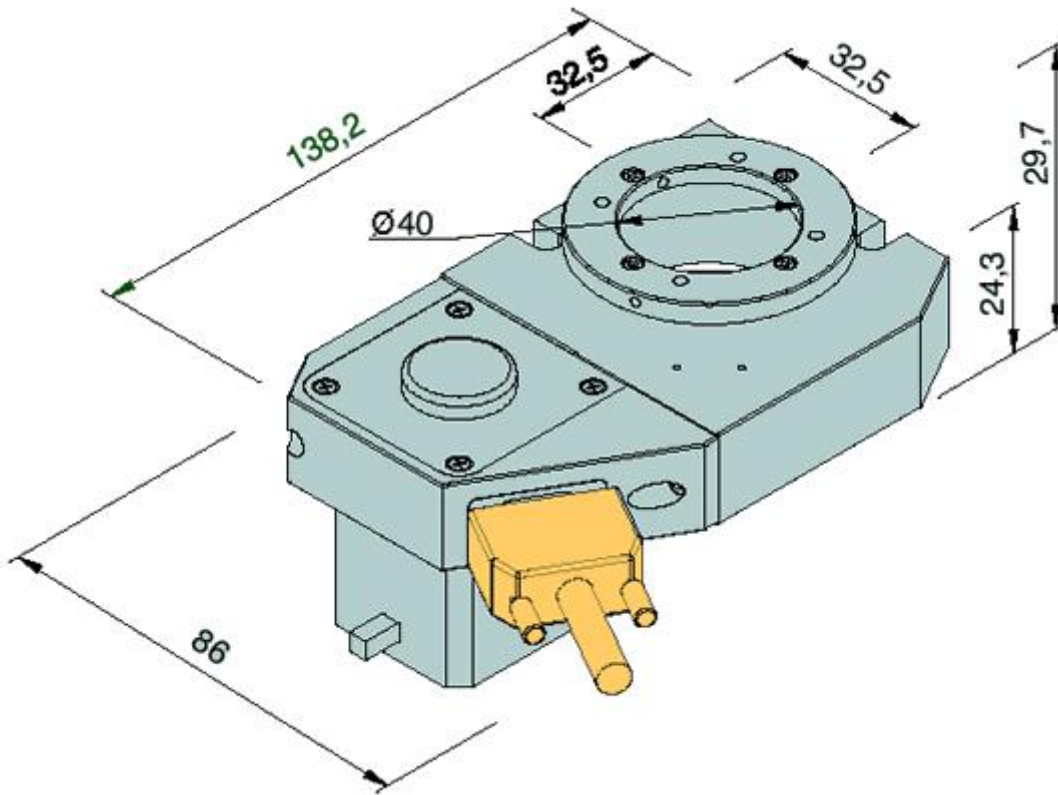
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DT-80 R Base



Rotation range

360°. endless



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

DT-80 R Ordering information

Order No.

- 2** 2Phase-047
- 3** 2Phase-042 (Pollux Motor & Controller)

6450-9- 0 0 0

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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