

# MICOS

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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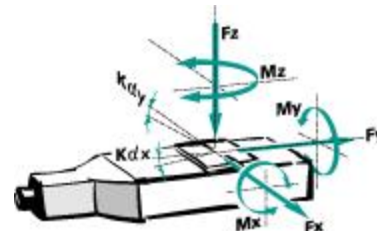
◀ 2.080 ▶ Translation Stage VT-80

Positioners



### Key features

- EcoLine in lightweight construction
- Travel range up to 300 mm
- Linear recirculating ball system
- Limit switches integrated
- Speed up to 20 mm/sec
- Load up to 5 kg
- Module combination



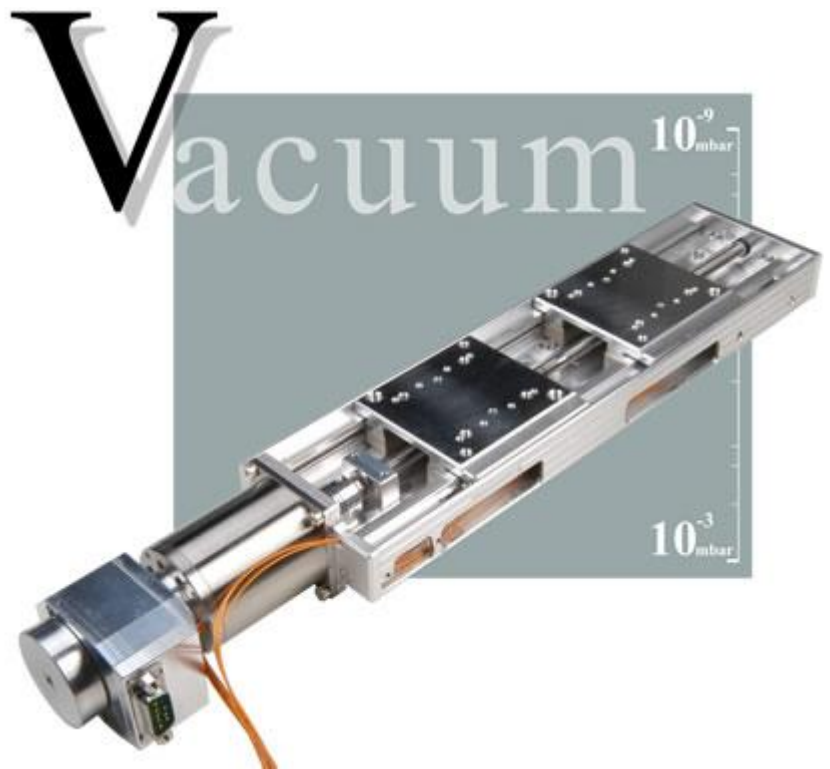
### FACTS

Load Characteristics	Fx (N)	Fy (N)	Fz (N)	Mx (Nm)	My (Nm)	Mz (Nm)	kax (μrad/Nm)	kay (μrad/Nm)
<a href="#">DC-B-026</a>	40	30	50	2.5	5	2.5	220	150
<a href="#">2Phase-041</a>	40	30	50	2.5	5	2.5	220	150

### DESCRIPTION

The **Translation Stage VT-80** is a low cost alternative to MICOS High-Precision Stages and it is especially designed for simple tasks of positioning. A backlash-free recirculating ball guiding system guarantees production without

problems. A back-lash compensated lead screw produces a quiet smooth move. The Translation Stages VT-80 are equip-ped with integrated limit switches. All translation stages are direct drives without gear. DC-, 2-phase-micro-step (SMC-series) motor are available. In case of Translation Stages VT-80 with step motor manual operation without control can be made with help of a scale and turning knob. All translation stages of the structural series 80 can be assembled. The XY-assembly with travel 25 mm must be set-up at our plant. Please indicate when ordering. **More Pictures** [▶▶](#)



#### Technical data

Travel Range (mm)	25	50	75	100	150	200	250	300
Bi-directional Repeatability (µm)	+/- 15							
Uni-directional (µm)	+/- 1							
Accuracy per 50 mm (µm)	+/- 100							
Velocity Range (mm/sec)	0.001 ... 20							
Straightness / Flatness (µm)	+/- 8	+/- 10	+/- 11	+/- 12	+/- 14	+/- 20	+/- 25	+/- 35
Pitch (µrad)	+/- 100	+/- 110	+/- 120	+/- 130	+/- 150	+/- 170	+/- 190	+/- 210
Yaw (µrad)	+/- 150							
Ballscrew Pitch (mm)	1							

#### Speed max.(mm/sec)

<u>DC-B-026</u>	20							
<u>2Phase-041</u>	20							

#### Resolution Open-Loop (µm)

<u>2Phase-041</u>	0.1 (SMC)   5 (FS)							
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#### Resolution Closed-Loop (µm)

RE-010, Rotary encoder feedback	0.5								
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**Current (Amps) / Voltage (Volts)**

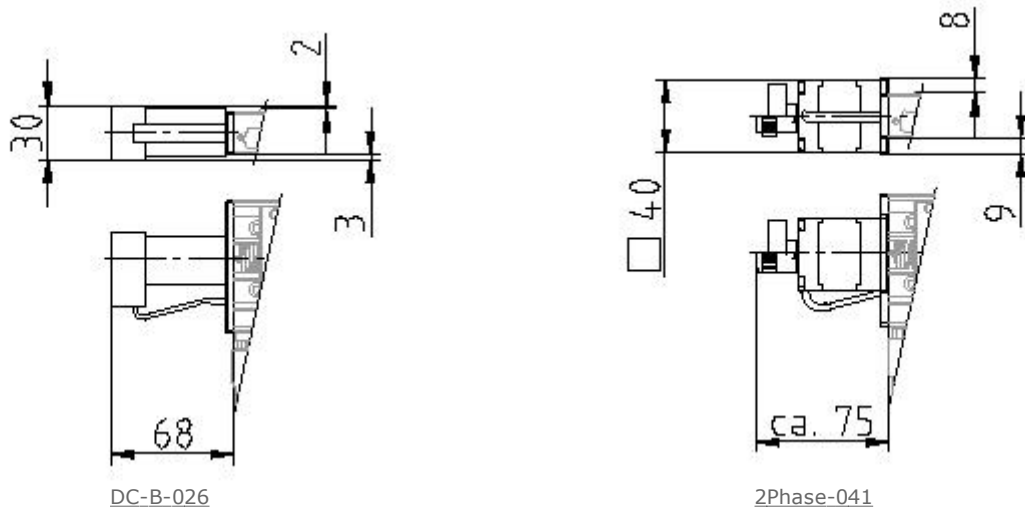
DC-B-026	0.98   0.24								
2Phase-041	1.7   -								

<b>Material</b>	Special Alu, black anodized								
<b>Weight (kg)</b>	0.55	0.65	0.7	0.75	0.85	0.95	1.1	1.25	

**Note:** (SMC): Micro-Step Mode, (FS): Full-Step 2/5Phase

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

VT-80 Motors



VT-80 Motor & Controller

DT-80 Motor & Controller



Motor & Controller System with VT-80

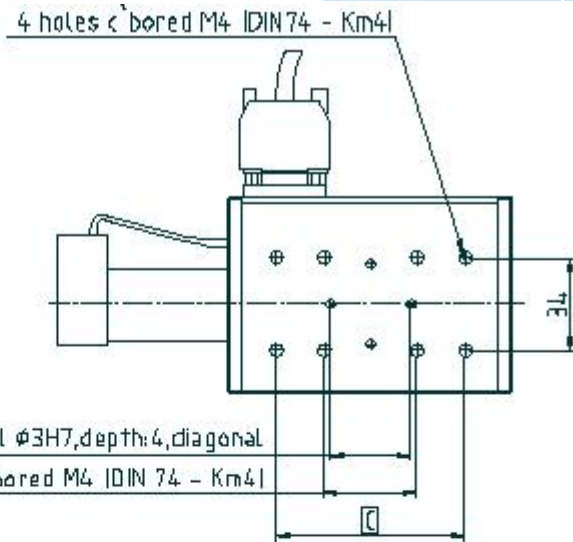


Motor & Controller System with DT-80

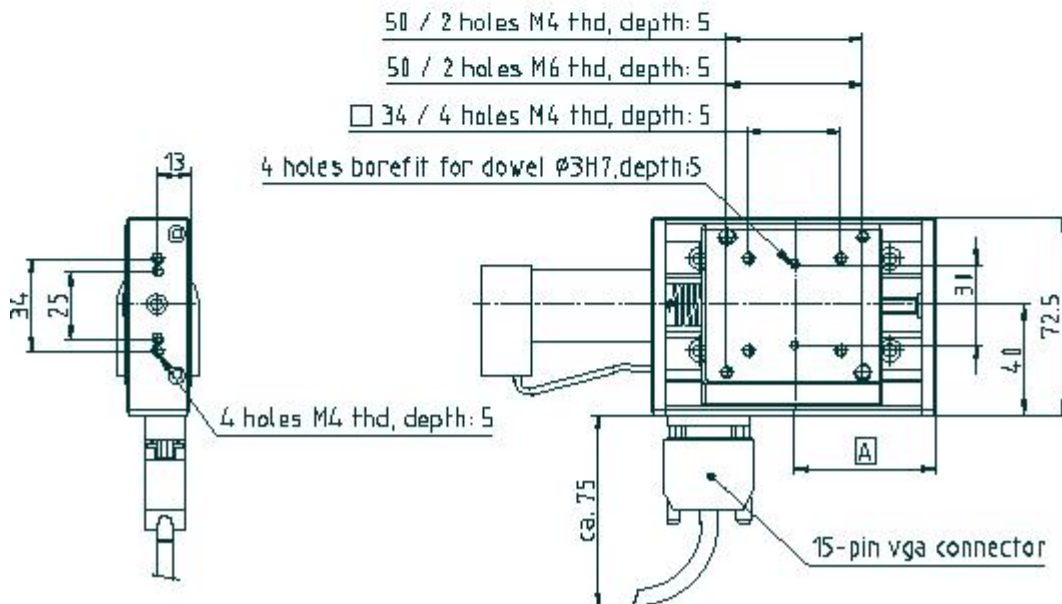
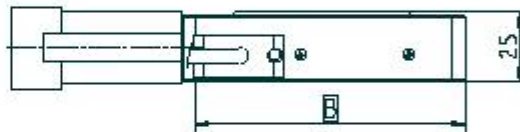


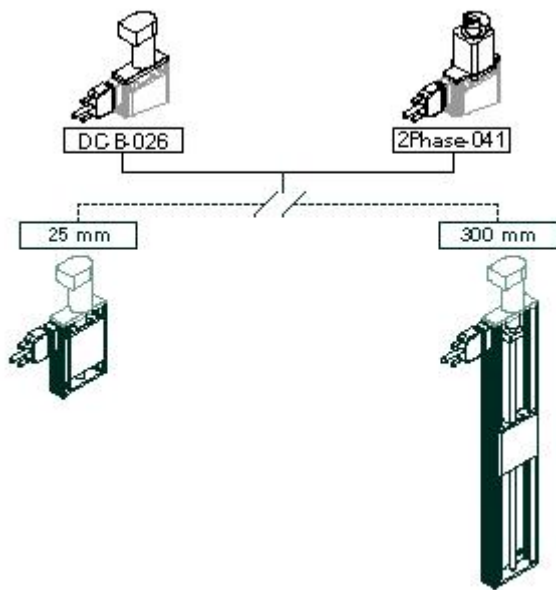
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Travel ranges	A (mm)	B (mm)	C (mm)
25 mm	52,5	100	70
50 mm	65,0	125	95
75 mm	77,5	150	120
100 mm	90,0	175	145
150 mm	115,0	225	195
200 mm	140,0	275	245
250 mm	165,0	325	295
300 mm	190,0	375	345



- 31 / 4 holes borefit for dowel  $\phi 3H7$ , depth: 4, diagonal
- 34 / 4 holes c' bored M4 IDIN 74 - Km4





DC-B-026 1  
2Phase-041 2

25 mm \* 1  
50 mm 2  
75 mm 3  
100 mm 4  
150 mm 5  
200 mm 6  
250 mm 7  
300 mm 8

(xy set up by MICOS) \*

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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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