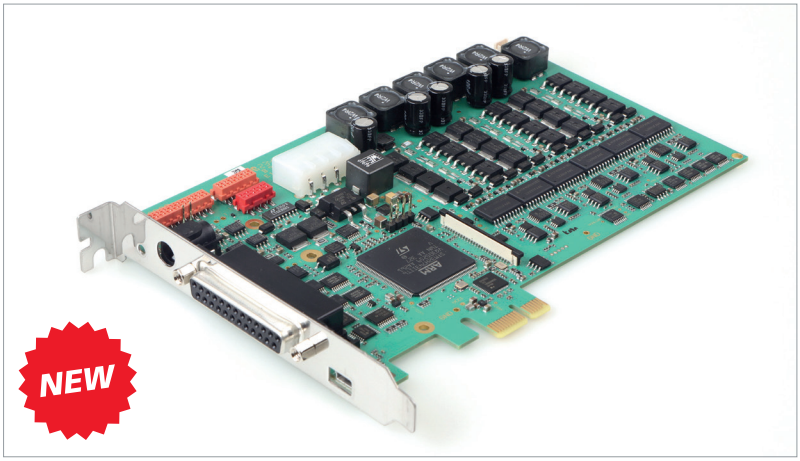
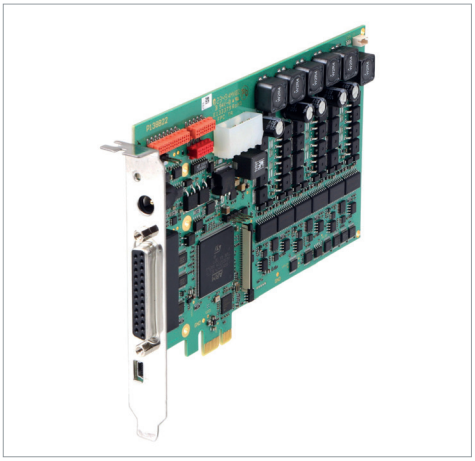
Märzhäuser Wetzlar GmbH & Co. KG
In der Murch 15 | 35579 Wetzlar | Germany
Tel.: +49 6441 9116-0 | Fax: +49 6441 9116-40
info@marzhauser.com | www.marzhauser.com





TANGO PCI-E neo

The High-Resolution Stepper Motor Controller as a PCI-E Slot Card.

Product Features

TANGO PCI-E neo is the slot card version of the TANGO product family. The controller can be integrated via PCI Express bus in your PC system and enables control of positioning systems with up to three axes. The positioning is done through programming or via manual operating device. Digital and analog inputs/outputs provide numerous additional functions.

Control of up to 3 axes

- 3 axes, individually or linearly interpolated movable
- High-precision positioning in a closed control loop when using incremental and absolute measuring systems (closed-loop mode)
- Backlash compensation
- Position-synchronized trigger output signal
- Sensitive manual operation with Joystick or ERGODRIVE

Maximum torque, even at high speeds

- Power supply with 12/24/48 V[1], up to 4,200 rpm
- Phase currents of up to 2.5 A

High step resolution

- 819,200 micro-steps/revolution
- Precise positioning in the sub-µm range

Energy-efficient eco-design

- Low power loss, thus reduced heat generation and low power consumption
- No fan required

Easy PC integration

- Easy installation and operation via PCI Express bus
- Installation of several TANGO PCI-E neo controllers in one PC possible

Software support for fast integration

- Compatible with all Windows operating systems from Windows 10, no driver required via virtual USB COM port
- Compatible with the standard instruction set of the TANGO product family
- Programming via ASCII, DLL, LabView VI and SwitchBoard

Order Information

Configure your TANGO PCI-E neo to suit your individual system requirements. Our sales team will be happy to advise you.

Basic Models

TANGO PCI-E neo

1 axis (Z)	00-6076-0000-1000
2 axes (XY)	00-6076-0000-1002
3 axes (XYZ)	00-6076-0000-1003

TANGO PCI-E neo incl. encoder interface

1 axis (Z)	00-6076-0000-1050
2 axes (XY)	00-6076-0000-1052
3 axes (XYZ)	00-6076-0000-1053

TANGO PCI-E neo incl. AUX I/O and trigger/snapshot

1 axis (Z)	00-6076-0300-1000
2 axes (XY)	00-6076-0300-1002
3 axes (XYZ)	00-6076-0300-1003

TANGO PCI-E neo incl. encoder interface, AUX I/O and trigger/snapshot

1 axis (Z)	00-6076-0300-1050
2 axes (XY)	00-6076-0300-1052
3 axes (XYZ)	00-6076-0300-1053

Phase current in all axes: 1.25 A,
slot bracket for installation in a PCI slot,
external power supply optionally available

More products: www.marzhauser.com

TÜVNORD TÜV NORD CERT GmbH DIN EN ISO 9001 tuev-nord.de

[1] 12 V: PC power supply, 24/48 V: external power supply (optional)

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Motor Power Stage

Number of axes	1 to 3
Supported motor types	stepper motors 2 or 4 phases, individual adaption to various motor types
Step resolution	4,096 micro-steps/full-step, 819,200 micro-steps/revolution (with 200-step motor)
Phase current	max. 1.25 A or 2.5 A (selectable)
Motor current setting	motor current adjustment control from 0.03 A to max. phase current, adjustable via software, motor phase correction, short-circuit-proof power stage outputs
Motor current reduction during standstill	0...100 % of motor current setting
Power supply	12 V DC (power supply of the PC), optional: 85…264 V AC, depending on external power supply: 48 V / 120 W, 24 V / 120 W

Positioning

Positioning modes	distance and vector positioning, positioning by setting speed and direction, simultaneous positioning of vectors and single axes, manual positioning, endless rotation
Speed range	0.000001...70 rps (each axis individually)
Acceleration	0.0001...20 m/s², linear or S-curve (each axis individually)
Travel range	depending on motor and spindle pitch (e.g. max. ±2.6 m with 200-step motor and 1 mm spindle pitch)
Instruction set	TANGO native (more than 300 instructions), Venus-1, Venus-2, others on request
Processing speed	> 250 vectors/s (depending on PC model and software)

Interfaces and Functions

Communication	PCI Express bus (virtual COM port)
Encoder interface (optional)	3× ports for incremental or absolute length/angle measuring systems, measuring system type selectable via software incremental measuring systems: RS-422 (quadrature), 1Vpp, MR/5Vpp, TTL (non-differential, on request), analog resolution: 16 bit, max. frequency for RS-422: 30 MHz absolute measuring systems: SSI, BiSS C
Operating devices (optional)	Joystick digital, ERGODRIVE digital (automatic identification of all operating devices)
Inputs/outputs (AUX I/O, optional)	TTL-I/O (4× digital input, 4× digital output), 1× analog input (0 V…5 V), 2× analog output (0 V…10 V), 1× Power Stage Enable (safety function)
Connection of additional peripherals	e.g. LED 100, PROFILER SCD CL, Liquid Dispenser
Input/output functions	save coordinates / move to coordinates, emergency stop, safety shutdown of power stage, fast trigger functions (optional), output of analog voltages, limit switch evaluation, closed-loop operation (optional)
Other functions	executing macros in the controller, on-board measuring of temperature, position correction with and without measuring system, measurement of power consumption

Ambient Conditions

Ambient temperature	+5 °C...+70 °C
Cooling	convection, no fan required
Humidity	85 % max., non-condensing
Dimensions (L × W) [2]	167.6 × 106.7 mm
Weight [3]	approx. 0.16 kg

[2] without slot bracket
[3] including slot bracket

For further technical details, please refer to the operating manual, which we will be happy to provide on request.

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