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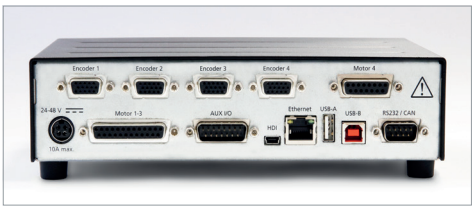

TANGO Desktop 2HE/3HE neo

The High-resolution Stepper Motor Controller in a Desktop and Built-in Housing.

Product Features

TANGO Desktop 2HE/3HE neo is the stand-alone version with the widest range of functions within the TANGO product family. The modular design and two different housing sizes allow for customized configuration. Up to seven stepper motors can be connected in the maximum expansion stage. The connected positioning systems are controlled either by software or via an operating device. Digital and analog inputs/outputs enable extensive additional functions.

Control of up to 7 axes

- Control of up to 4 main axes (axis 1-4), individually or linearly interpolated movable
- High-precision positioning in a closed control loop when using incremental and absolute measuring systems (closed-loop mode)
- Upgradeable by 3 auxiliary axes in open-loop mode (axis 5-7)
- Backlash compensation
- Position-synchronized trigger output signal
- Sensitive manual operation with Joystick or ERGODRIVE

Maximum torque, even at high speeds

- Power supply with 24 V or 48 V, up to 4,200 rpm
- Phase currents of up to 2.5 A (axis 1-4) or 1.0 A (axis 5-7)

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 necessary

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 Desktop neo to suit your individual system requirements.
Our sales team will be happy to advise you.

Basic Models

TANGO Desktop 2HE neo

1 axis (Z)	00-4076-0000-2200
2 axes (XY)	00-4076-0000-2202
3 axes (XYZ)	00-4076-0000-2203
4 axes (XYZA)	00-4076-0000-2204

TANGO Desktop 2HE neo incl. encoder interface

1 axis (Z)	00-4076-0000-2250
2 axes (XY)	00-4076-0000-2252
3 axes (XYZ)	00-4076-0000-2253
4 axes (XYZA)	00-4076-0000-2254

TANGO Desktop 2HE neo incl. trigger/snapshot

1 axis (Z)	00-4076-0100-2200
2 axes (XY)	00-4076-0100-2202
3 axes (XYZ)	00-4076-0100-2203
4 axes (XYZA)	00-4076-0100-2204

TANGO Desktop 2HE neo incl. encoder interface, trigger/snapshot

1 axis (Z)	00-4076-0100-2250
2 axes (XY)	00-4076-0100-2252
3 axes (XYZ)	00-4076-0100-2253
4 axes (XYZA)	00-4076-0100-2254

Phase current in all axes: 1.25 A,
equipment feet for positioning at the workstation,
incl. external power supply 48 V / 160 W

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Motor Power Stage

Number of axes	1 to 4
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	axis 1-4: max. 1.25 A or 2.5 A (selectable) axis 5-7: max. 1.0 A (POS3 module required)
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	85…264 V AC, depending on external power supply: 48 V / 160 W, 24 V / 160 W, 24 V / 220 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	2× RS-232 (max. 115,200 baud), 1× USB 2.0 (virtual COM port), 1× Ethernet, 1× CAN bus (prepared, CAN-FD: max. 5 Mbps, Standard CAN: max. 1 Mbps, power supply: 24 V, max. 3 A)
Encoder interface (optional)	4× 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	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 voltage, 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	TANGO Desktop 2HE neo	TANGO Desktop 3HE neo
Ambient temperature	+5 °C...+45 °C	
Cooling	convection, no fan required	
Humidity	85 % max., non-condensing	
Dimensions (L × W × H)[1]	216 × 131 × 60 mm	216 × 131 × 75 mm
Weight[1]	approx. 1.4 kg	approx. 1.7 kg

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[1] without cables/plugs, without power supply
For further technical details, please refer to the operating manual, which we will be happy to provide on request.

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Quotation Request TANGO Desktop 2HE/3HE neo

Axes	up to 4 main axes or 3 auxiliary axes	2 axes (XY) *
Encoder interface	4 ports for incremental or absolute length/angle measuring systems	none Type: incremental *
Phase current	axis 1-4: 1.25 A or 2.5 A axis 5-7: 1.0 A (not selectable)	Axis 1: 1.25 A * Axis 3: 1.25 A * Axis 2: 1.25 A * Axis 4: 1.25 A *
Extension modules		
CAN+Power **	CAN-FD: max. 5 Mbps, Standard CAN: max. 1 Mbps, power supply: 24 V, max. 3 A	○ Yes ◉ No
I/O1 module **	digital, 24× input, 8× output	○ Yes ◉ No
I/O2 module	digital, 12× input, 8× output	○ Yes ◉ No
Motor brake	for axes 1-4	○ Yes ◉ No
Trigger/snapshot	position-synchronized trigger, saving the current position	○ Yes ◉ No
Housing	height 2HE: 60 mm, height 3HE: 75 mm	2HE with equipment feet *
Power supply	external desktop power supply	48 V / 160 W *
Accessories		
Operating device	Joystick or ERGODRIVE for manual operation, MF wheel: multifunction wheel	none
Position display	display screen with touch display	none
Motor cables	multiple selection possible with CTRL, more versions on request	none Z axis (2 m) Z axis (3 m) XY axes (2 m)
Notes		

* standard version ** only available with housing type 3HE

Cancel and request advice

Submit form