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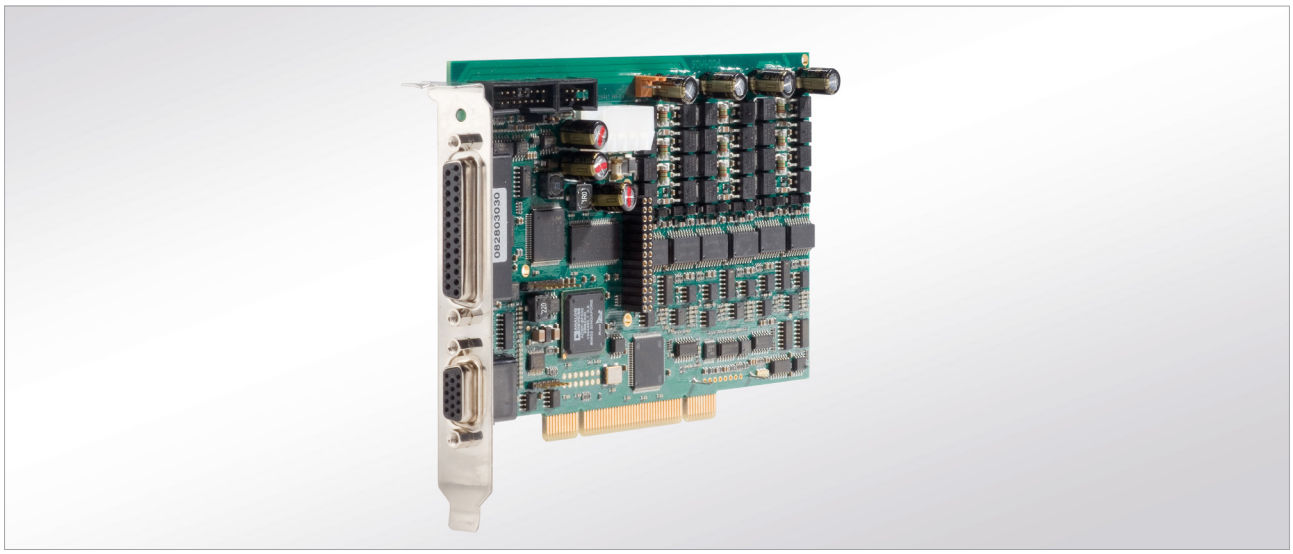

TANGO PCI-S

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

Product Features

TANGO PCI-S is the slot card version of the TANGO product family and can be integrated via PCI bus in your PC system. It enables control of up to 4 axes. In cascaded operation up to 16 axes can be controlled.

The positioning is done through programming or via manual operating device. Digital and analog inputs/outputs provide numerous additional functions.

Easy PC integration
operation via PCI bus, fast data transfer and simple installation with virtual com port driver.

Positioning within sub-µm range
position resolution of 819,200 micro-steps/revolution

Maximum torque, even at high speed
48 V motor voltage, up to 4,200 revolutions/min, phase currents of up to 2.5 A

Energy-efficient ecological design
lower power dissipation, resulting in decreased caloric development and lower power consumption, no fan required

Sensitive manual operation
via Joystick or ERGODRIVE

„Microsoft Authenticode Certificated Driver"
compatible to all Windows operating systems including Windows 10 (32/64 bit)

Intuitive operating surface and DLL support
enables easy integration and command input

Order Information

TANGO 1 PCI-S[1]	00-76-150-2801
TANGO 2 PCI-S[2]	00-76-150-2802
TANGO 3 PCI-S[3]	00-76-150-2803
TANGO 4 PCI-S[4]	00-76-150-2804

Accessories

1-Axis Joystick	00-76-100-0823
2-Axes Joystick	00-76-200-0820
3-Axes Joystick	00-76-300-0820
3-Axes Joystick[5]	00-76-300-0821
4-Axes Joystick[5]	00-76-400-0820
ERGODRIVE 2[2]	00-27-322-1600
ERGODRIVE 3[3]	00-27-322-1500
Motor cable Z-axis[6]	00-76-102-9803
Motor cables XY-axes[6]	00-76-202-0808
Motor cables XYZ-axes[6]	00-76-302-0809
Motor cable 4th axis[6]	00-76-402-0810

[1] 1 axis
[2] 2 axes
[3] 3 axes
[4] 4 axes
[5] with multi-function wheel
[6] cable length: 2 m

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Motor Output Stage

Amount of axes	1 to 4
Supported motor types	stepper motor 2 or 4 phases, individual adaption to step angle of the motor
Step resolution	4,096 micro-steps/macro-step, 819,200 micro-steps/revolution (with 200-step motor)
Max. phase current	axis 1 to 3: 1.25 A or 2.5 A axis 4: 1.0 A
Motor current setting	motor current adjustment control from 0.03 A to max. phase current, adjustable via software, motor phase correction, short-circuit-proof outputs
Motor current reduction during standstill	0...100 % of motor current setting
Supply	100...240 V AC optional: external 24 V or 48 V power supply

Positioning

Positioning modes	positioning of distance and vectors, track function, positioning by setting speed and diretcion, simultaneous positioning of vectors and single axes, manual positioning, override position
Speed range	0.000001...70 rps (each axis individually)
Acceleration	0.0001...20 m/s², linear or sin² (each axis individually)
Travel range	distance: max. ±2.6 m
Programming	ASCII command language (> 160 commands)
Processing speed	up to 250 vectors/s (depending on PC model and software)
Processor system	DSP, 396 MHz, 16 MByte SDRAM, 4 MBit Flash Memory, 256 KBit EPROM

Interfaces and Functions

Measuring systems	connection of measuring systems for length and angles for high-precision positioning in closed-loop operation (axes XYZ), supports all customary optical systems as well as Märzhäuser MR measuring system
Encoder interface (optional)	1Vpp, MR/analog 5Vpp, TTL (RS-422) interpolation of analog encoder signal up to factor 51,400 (14 Bit) TTL quadrature with an input frequency of up to 30 MHz
Operating devices	Joystick, ERGODRIVE (automatic identification)
Further inputs/outputs (AUX I/O, optional)	analog input 0–5 V, analog outputs 0–10 V, TTL I/O, TTL limit-switch inputs
Input/output functions	saves coordinates, emergency stop, safety shutdown of output stage, position-synchronous trigger outputs, output of analog voltage, limit-switch evaluation, closed-loop positioning
Miscellaneous	position correction with and without measuring system, reading of / writing on electronic type label (ETS), fitted in positioning mechanics, for customer-related data or for setting of parameters

Ambient Conditions

Operating temperature	+5 °C...+70 °C
Cooling	normal convection, no fan required
Measurements (L × W)	167.64 × 106.68 mm (without slot bracket/plugs)
Weight	approx. 0.2 kg (without slot bracket/plugs)