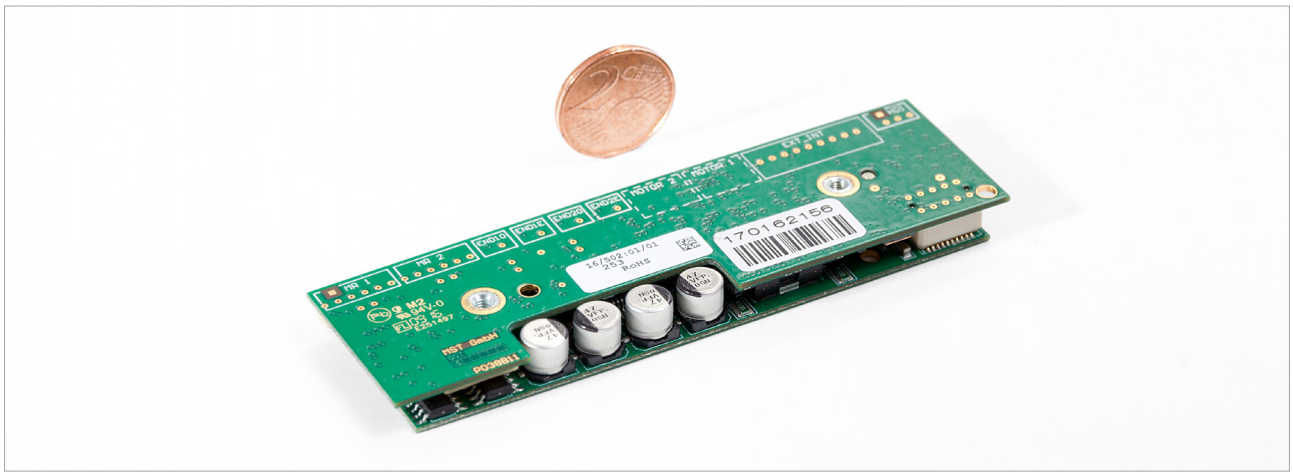
MÄRZHÄUSER WETZLAR



TANGO integrale

The High-Resolution Stepper Motor Controller for Individual System Integration.

Product Features

TANGO integrale is the miniaturized and compact stepper motor controller for 2 axes, providing the typical performance features of the TANGO product family. Due to its extremely small dimensions, the controller can be directly integrated into positioning systems. The positioning is done through programming or manual operating device. Digital inputs/outputs enable extensive additional functions.

Control of 1 or 2 axes

- motor voltage 24 V typ. / phase current 1 A max.
- both axes can be moved individually or linear interpolated simultaneously

High position resolution

- 819,200 microsteps/revolution
- exact positioning within sub-µm range
- smooth running of motors

Functions

- precise positioning in closed-loop operation with incremental length and angle measuring systems
- saving coordinates
- position-synchronous trigger output
- backlash compensation

Flat design

- small dimensions with a height of approx. 7 mm

Software support for easy integration

- „Microsoft Authenticode Certificated Driver", compatible to all Windows operating systems including Windows 10 (32/64 bit)
- compatible with native instruction set of TANGO product family
- programming by means of DLL, LabView VI and software „SwitchBoard"

Order Information

TANGO integrale	00-76-100-4803

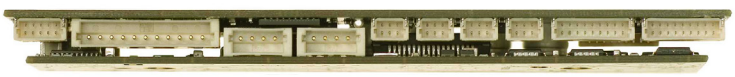
Options

Snapshot/trigger[1]	00-76-801-9801

Accessories

ERGODRIVE 2 digital[2]	00-27-322-1600
2-Axes Joystick digital	00-76-200-0820
Breakout box BOB1[3]	00-59-103-7002
Ext. 24 V power supply	00-76-203-4801

For more accessories please visit:
www.marzhauser.com



TANGO integrale in 1:1 scale

[1] activation code needed
[2] for 2 axes
[3] provides USB 2.0 port and HDI digital port

Issue: May 2017

Motor Output Stage

Number of axes	2
Supported motor types	stepper motors 2 or 4 phases, individual adaption to various motor types
Step resolution	4,096 microsteps/macrostep, 819,200 microsteps/revolution (with 200-step motor)
Phase current	max. 1 A
Motor current setting	motor current adjustment control from 0.03…1 A, adjustable via software, short-circuit-proof outputs
Motor current reduction during standstill	0…100 % of set motor current
Power supply	24 V DC typ., 10…32 V DC, 30 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 (selectable for each axis individually)
Acceleration	0.0001…20 m/s², linear or sin² (selectable for 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 180 instructions), Venus-1, Venus-2, others on request
Processing speed	up to 250 vectors/s (depending on PC model and software)

Interfaces and Functions

Communication	RS-232 (standard), USB 2.0 (optional breakout box BOB1 needed), CAN bus (available on request)
Limit switch inputs	2 inputs per axis, TTL level
Encoder interface	connection of incremental length and angle measuring systems type nanoScale[1] (1Vpp available on request) for precise positioning in closed-loop operation, analog resolution: 16 bit
Operating devices (optional)	Joystick digital, ERGODRIVE digital (automatic identification of all operating devices)
Additional inputs/outputs	1 TTL input, 1 TTL output
Input/output functions	save coordinates / move to coordinates, safety shutdown of output stage, limit switch evaluation, fast trigger functions (optional), closed-loop positioning
Other functions	on-board measuring of temperature, position correction with and without measuring system

Ambient Conditions

Ambient temperature	+5…+43 °C or +5…+62 °C (depending on the installation situation)
Cooling	convection, no fan required
Humidity	85 % max., non-condensing
Dimensions	approx. 96 × 28 × 7 mm (L × W × H, without isolating foils)
Weight	approx. 30 g (without cables)

[1] MR/analog 5Vpp

For more technical details please refer to the operating manual which we will gladly provide on request.

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