











# LSTEP PCIexpress

#### For high-precision positioning operations

The LANG positioning system LSTEP PClexpress is a high-resolution stepper motor controller for up to four axes with 2- and 3-phase stepper motors, realised as a PClexpress plug-in card for the IPC. A user-friendly, automatic controller design based on a few parameters is possible in servo mode. With our free WIN-Commander software, you can comfortably configure and also operate your system. In addition, an oscilloscope function is integrated for analysis purposes.

Communication between the IPC and the controller works via the PClexpress bus. Using our free API, simple and efficient integration into your software environment is possible. The dynamic microstep operation enables fast positioning processes with high accuracy. The small dimensions of the PClexpress card allow integration into almost all IPC housings.

You are also welcome to use the industrial PC that we have specially designed for the LSTEP PClexpress. This impresses with a robust sheet steel housing and with connector cut-outs adapted to the controller.

The integration of control and power amplifiers on a PCI plug-in card enables compact, EMC-proof systems without additional mechanical effort. This solution is therefore particularly suitable for cost sensitive applications. A variety of options enables optimised adaptation to different system requirements while at the same time providing the highest level of operating convenience.

## **Application areas**

- ✓ Machinery- and plant engineering
- ✓ Handling systems
- ✓ Test and analyzer systems
- Microscopy
- ✓ Imaging systems
- ✓ AFM microscopy
- ✓ Waferinspection and waferhandling
- Micro assembling
- Laboratory automation
- ✓ Medical technology
- Clean room applications





#### **Technical Data**

Power supply: via PC / IPC, alternatively with DC link voltage via an external power supply (12 V- 48 V)

Interfaces: internal PClexpress bus

Safety functions: Torque deactivation via disconnection of the DC link and driver voltage, stopp-input

Axes: up to 4 axes synchronous and individually controllable up to 5 A continuous current

Motor resolution: up to 32.768 microsteps per pole pair in servo- and stepper mode

Output power: operating tool: LANG WIN-Commander Version 6
End switch ports: via motor plug as well as separate plug accessible

API: DLL-Interface for Delphi, Visual C++ und Visual-Basic, to integrate in your MS® WindowsTM-application

Commands: individually customisable through a variety of commands

## **Options**

Joystick:	analog Joystick for 4 axes
Encoder evaluation:	up to 8 x sin/cos Encoder (8192-fold interpolated)
	up to 6 x TTL/RS422 Encoder (4-fold interpolated)
Multifunctionport:	2 trigger outputs with 22 modi
	1 snapshot input
	1 stop input
	pulse direction outputs for 2 further axes
	12 analog inputs
	2 analog outputs
	1 PT 100-Interface
Digital inputs and outputs:	up to 16 inputs and outputs
Analog inputs and outputs:	12 inputs and 2 outputs
Customised cables:	pre-assembled motor cables
	pre-assembled encoder cables
	further cables on demand

