

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

PiezoWalk® NEXACT® Controller

Networkable Controller for NEXACT® Linear Drives and Positioners



E-861

- High-speed encoder input
- Macro programmable for stand-alone functionality
- Data recorder
- Nonvolatile EEPROM for macros and parameters
- Daisy chain networking

Digital servo controller for NEXACT® piezo motors
1 axis. Supports motion types of the PiezoWalk® drives: Nanostepping mode for longer distances. Highly dynamic positioning within one step with resolutions below one nanometer.

Interfaces and communication
USB and RS-232 interfaces for commanding. A/B quadrature encoder input. TTL inputs for limit and reference point switches. I/O lines (analog/digital) for automation. Interface for analog joystick. Daisy chain networking for up to 16 axes operated via a common computer interface.

Extensive functions, software support
Powerful macro command language. Nonvolatile macro storage, e.g., for stand-alone operation with autostart macro. Data recorder. PID controller, parameter changing during operation. Extensive software support, e.g., for LabVIEW, C, C++, MATLAB, Python. PIMikroMove user software.

Fields of application

- 2-photon microscopy, confocal microscopy
- 3-D imaging
- Laser technology
- Interferometry
- Biotechnology
- Micromanipulation
- Autofocus with high demands on travel range

09.03.2018

Specifications

	E-861.1A1
Function	Controller for NEXACT® drives, suitable for PiezoWalk® drives
Drive type	NEXACT® piezo motor
Axes	1
Supported functions	Startup macro. Data recorder for recording operating data such as motor voltage, velocity, position or position error. Internal safety circuitry: Watchdog timer.

Motion and control	E-861.1A1
Controller type	PID controller, parameter changing during operation
Trajectory profiles	Trapezoidal
Encoder input	Analog encoder input sine-cosine, interpolation selectable up to 1000; Interpolation electronics for differential transmission, 1 V_{pp} and 2.5 V offset of the encoder signal
Stall detection	Automatic motor stop when a programmable position error is exceeded
Input limit switch	2 × TTL (pull-up/pull-down, programmable)
Input reference point switch	1 × TTL

Electrical properties	E-861.1A1
Max. output power	40 W
Output voltage	-10 to +45 V
Max. current consumption	2 A

Interfaces and operation	E-861.1A1
Communication interfaces	USB, RS-232
Motor connection	HD Sub-D 15 (f)
Sensor connection	HD Sub-D 15 (m)
Controller network	Up to 16 units on single interface*
I/O lines	4 analog/digital in, 4 digital out (TTL)
Command set	PI General Command Set (GCS)
User software	PIMikroMove
Application programming interfaces	API for C / C++ / C# / VB.NET / Python, drivers for LabVIEW
Manual control (optional)	Pushbutton box, joystick (for 2 axes), Y cable for 2-D motion

Miscellaneous	E-861.1A1
Operating voltage	24 V; in the scope of delivery: External power adapter with 24 V, 2 A
Operating temperature range	0 to 50 °C
Mass	1.1 kg
Dimensions	206 mm × 130 mm × 66 mm (incl. mounting rails)

* 16 units with USB; 6 units with RS-232.

Ordering Information

E-861.1A1
PiezoWalk® NEXACT® controller, 1 axis, benchtop device, linear encoder, USB and RS-232 interfaces, I/O, connecter for joystick

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP