Networkable Servo Controller for Stick- Slip Piezo Motors

1 AXIS, FOR POSITIONERS WITH PISHIFT INERTIA DRIVES

E-871

- Broadband encoder input
- Macro programmable for stand- alone functionality
- Data recorder
- Non- volatile EEPROM for macros and parameters
- Versatile and cost- effective
- Daisy- chain networking with Mercury Class controllers
- Digital I/ O ports (TTL)
- ID chip support
- Interfaces: RS-232 and USB
- Optional joystick for manual control

Digital servo controller for PIShift piezomotors

1 channel. Integrated power amplifier and voltage generator for PIShift piezo inertia drives. Point- to- point motion, actuator mode for nanometer- precise positioning to target position

Extensive functionality

Powerful macro command language. Non- volatile macro storage, e. g. for stand- alone functionality with autostart macro. Data recorder. ID chip for quick start- up, parameter changes on- the- fly. Extensive software support, e. g. for LabVIEW, shared libraries for Windows and Linux

Mercury class motion controller

Daisy- chain networking for up to 16 axes operated via a common computer interface.
Interfaces: USB and RS-232 for commands. A/ B (quadrature) encoder input. TTL inputs for limit and reference point switches.
I/ O ports (analog / digital) for automation. Interface for analog joystick.
Delivery scope including wide- range power supply, USB and RS-232 cable, daisy- chain network cable

Specifications

	E-871.1A1
Function	Piezomotor controller for PIShift drives and positioning systems
Channels	1
Motion and control	
Servo characteristics	PID controller, parameter changes on- the- fly
Encoder input	Analog encoder input sine- cosine,interpolation selectable up to 20000; Interpolation circuit for differential transmission 1 V_{pp} and 2.5 V offset of the encoder signal
Stall detection	Servo off
Input limit switch	2 × TTL (pull- up / pull- down, programmable)
Input reference switch	1 × TTL and Zero + & Zero- for integrated reference in the encoder
Electrical properties	
Max. output power	30 W
Output voltage	0 to 100 V, drive- dependent selection
Max. operating current	1.5 A

Interface and operation	
Communication interfaces	USB, RS-232 (9- pin (m) Sub- D)
Motor connector	HD Sub- D 15- pin (f)
Sensor connection	HD Sub- D 15- pin (m)
Controller network	Up to 16 units on single interface*
I/ O ports	4 analog / digital in, 4 digital out
Command set	PI General Command Set (GCS)
User software	PIMikroMove, PITerminal
Software drivers	LabVIEW drivers, shared libraries for Windows and Linux
Supported functionality	Point- to- point motion, start- up macro, data recorder for recording parameters as motor input voltage, position or position error; internal safety circuitry: watchdog timer; ID chip
Manual control (optional)	Pushbutton box, joystick (for 2 axes), Y- cable for 2- D motion
Miscellaneous	
Operating voltage	24 V, in the scope of delivery: external power supply with 24 V / 2.0 A
Operating temperature range	0 to 50 °C
Mass	1.1 kg
Dimensions	205 mm × 130 mm × 55 mm (incl. mounting rails)

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

Order Information

E-871.1A1
PIShift Controller, 1 Channel, Linear Encoder

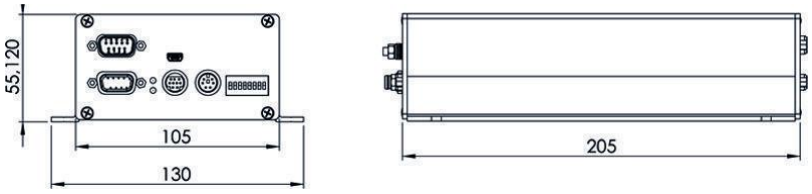
Related Products

E-870 PIShift Drive Electronics
Q-521 Q- Motion Miniature Linear Positioning Stage
Q-522 Q- Motion Miniature Linear Stage
Q-545 Q- Motion Precision Linear Stage

Technology

Piezoelectric Inertia Drives | Inertia Drives are space- saving and low- cost piezo- based inertia drives with relatively high holding forces and a travel range that is only limited by the length of the moving rod. Learn more ...

Drawings / Images



E-871, dimensions in mm