Q- Motion® Servo Controller

1 AXIS, FOR POSITIONERS WITH PIEZO INERTIA DRIVES

E-873

- Broadband encoder input
- Macro programmable for stand- alone functionality
- Data recorder
- Digital I/ O ports (TTL)
- ID chip support
- Interfaces: TCP/ IP, USB and RS-232
- Joystick input for manual operation

Digital servo controller for piezo inertia drives

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

Extensive functionality

Powerful macro command language. Nonvolatile 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

Interfaces

USB, RS-232 and TCP/ IP (version- dependent) for commanding. Differential signal transmission for digital (A/ B) or analog (sin/ cos) encoder signals, BiSS interface for absolute encoders. TTL inputs for limit and reference point switches. I/ O ports (analog / digital) for automation. Connection for analog joystick
Delivery scope including wide- range power supply, USB and RS-232 cable

Specifications

	E-873.1A1	E-873.1AR	E-873.1AT
Function	Q- Motion® controller for positioning systems with piezo inertia drives, bench-top device	Q- Motion® controller for positioning systems with piezo inertia drives, bench-top device with option for control cabinet mounting	Q- Motion® controller for positioning systems with piezo inertia drives, bench-top device with option for control cabinet mounting
Communication interfaces	TCP/ IP, USB, RS-232	USB	TCP/ IP, USB, RS-232

Specifications

	E-873.1Ax
Channels	1
Motion and Control	
Servo characteristics	PID controller, parameter change on- the- fly
Encoder input	Analog encoder input sine- cosine,interpolation selectable up to 20000; Interpolation circuit for differential transmission, 1 V_{pp} amplitude and 2.5 V offset of the encoder signal; BiSS interface for absolute encoders
Stall detection	Servo off
Input limit switch	2 × TTL (pull- up / pull- down, programmable)
Input reference switch	1 × TTL for integrated reference in the encoder
Electrical properties	
Max. output power	30 W
Output voltage	0 to 100 V, drive- dependent selection
Max. current consumption	1,5 A
Interfaces and operation	
Motor connection / sensor connection	Sub- D connector 15- pin (f)
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 functions	Point- to- point motion, start- up macro, Data recorder for recording operating data such as motor voltage, position or position error; internal safety circuitry: Watchdog timer; ID chip
Manual control (optional)	Joystick (for 2 axes), Y- cable for 2- D motions
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

Order Information

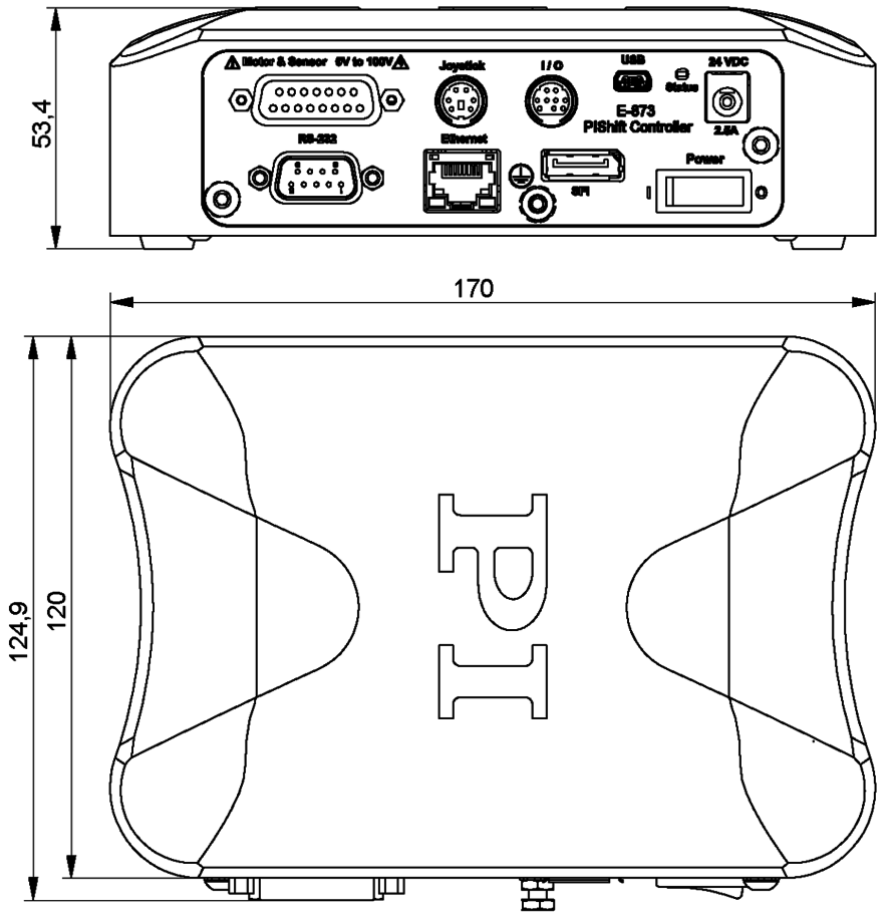
E-873.1A1
Q- Motion® Controller, 1 Channel, TCP/ IP, USB and RS-232 Interface, Bench- Top Device
E-873.1AR
Q- Motion® Controller, 1 Channel, USB Interface, Bench- Top Device (Industry)
E-873.1AT
Q- Motion® Controller, 1 Channel, TCP/ IP, USB and RS-232 Interface, Bench- Top Device (Industry)

Ask about custom designs!

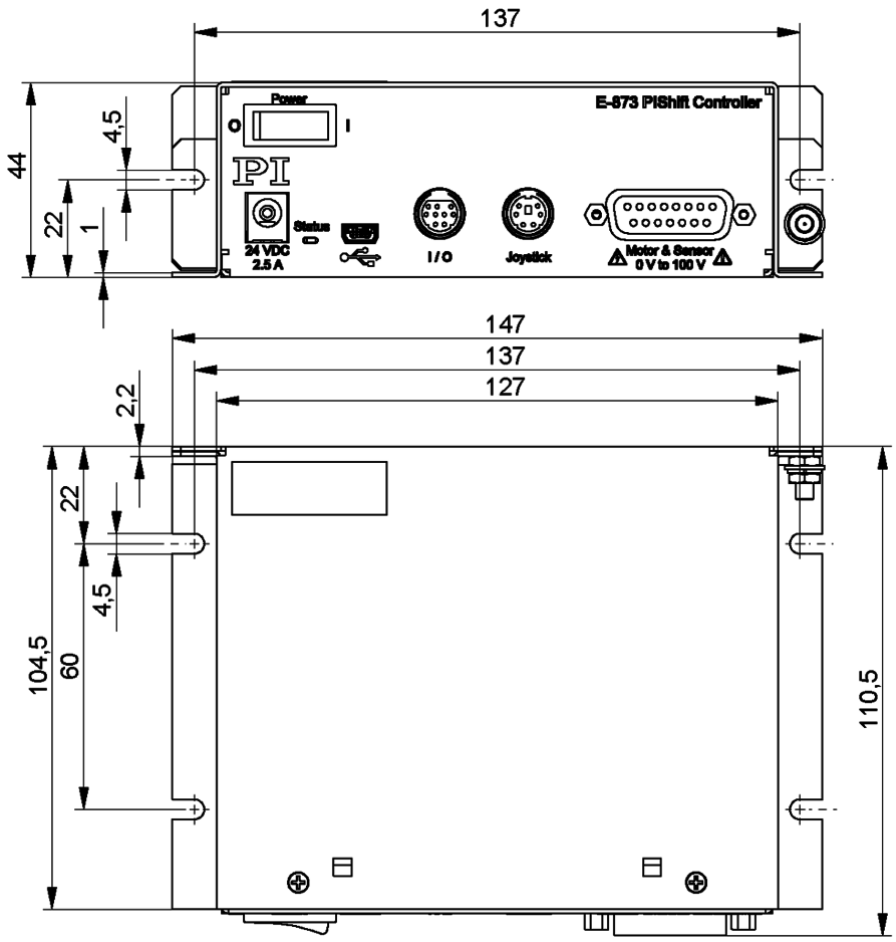
Technology

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 ...

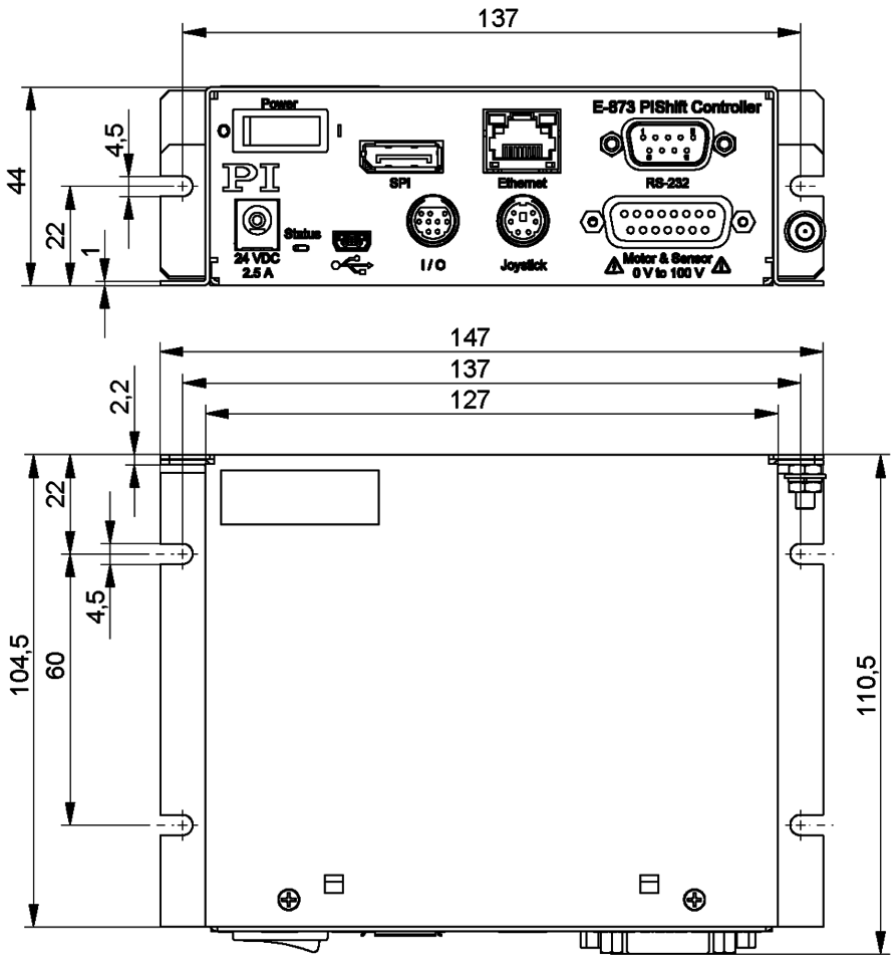
Drawings / Images



E-873.1A1,
dimensions in mm



E-873.1AR,
dimensions in mm



E-873.1AT,
dimansions in mm