

## Q-Motion® Servo Controller

3 AXES, FOR POSITIONERS WITH PIEZO INERTIA DRIVES



### E-873.3QTU

- + Broadband encoder input
- + Macro programmable for stand- alone functionality
- + Data recorder
- + Nonvolatile EEPROM for macros and parameters
- + Digital I/ O ports (TTL)
- + ID chip support
- + Interfaces: TCP/ IP and USB
- + Optional digital joystick for manual operation

### Digital servo controller for piezo inertia drives

3 channels with integrated power amplifiers and interpolator. Point- to- point motion, actuator mode for nanometer precision positioning at the target position.

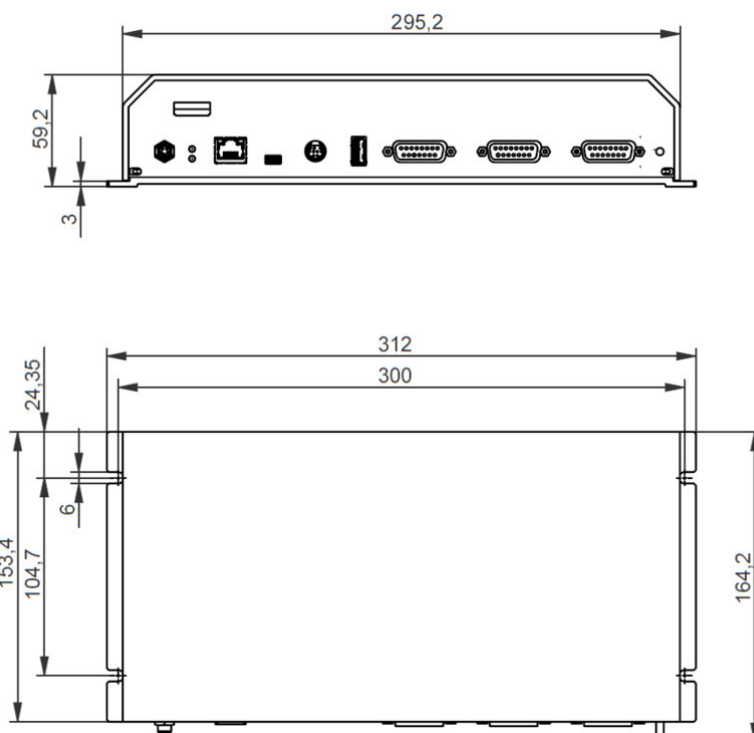
### Extensive functionality

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

### Interfaces

USB and TCP/ IP for commanding. Differential signal transmission for analog (sin/ cos) encoder signals. TTL signal inputs for reference point switch. I/ O lines (digital) for automation. Connection for digital joystick. Scope of delivery includes wide- range- input power supply as well as USB and Ethernet cable.

### Drawings / Images



E-873.3QTU,  
dimensions in mm

## Specifications

E-873.3QTU	
Function	Q- Motion® controller for positioning systems with piezo inertia drives, benchtop device with option for control cabinet mounting
Interfaces for communication	TCP/ IP, USB
Channels	3
<b>Motion and control</b>	
Servo characteristics	PID controller, on- the- fly parameter change
Encoder input	Analog encoder input sine- cosine, interpolation selectable up to 20000; Interpolation circuit for differential transmission, 1 V <sub>pp</sub> and 2.5 V offset of the encoder signal
Stall detection	Automatic servo off
Input reference switch	1 × TTL for integrated reference in the encoder
<b>Electrical properties</b>	
Max. output power	30 W per axis
Output voltage	0 to 100 V, drive- dependent selection
Max. current consumption	5 A
<b>Interfaces and operation</b>	
Motor connection / sensor connection	3 × Sub- D socket, 15- pin
I/ O lines	4 digital inputs, 4 digital outputs
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 parameters such as motor voltage, position or position error; internal safety circuitry: Watchdog timer; ID chip
Manual control (optional)	USB joystick
<b>Miscellaneous</b>	
Operating voltage	24 V, (external power supply with 24 V / 5 A in scope of delivery)
Operating temperature range	0 to 50 °C

## Order Information

### E-873.3QTU

Q- Motion® Controller, 3 Channels, TCP/ IP and USB Interface, Benchtop Device (Industry)

Ask about custom designs!

## Related Products

[Q-521 Q- Motion® Miniature Linear Positioning Stage](#)

[Q-522 Q- Motion Miniature Linear Stage](#)

[Q-545 Q- Motion® Precision Linear Stage](#)

[Q-614 Q- Motion Miniature Rotation Stage](#)

[Q-622 Q- Motion Miniature Rotation Stage](#)

[Q-632 Q- Motion Rotation Stage](#)

[N-412 Linear Actuator with PIShift Piezomotor](#)

[N-422 Linear Actuator with PIShift Piezomotor](#)

[N-470 PiezoMike Linear Actuator](#)

[N-470.V • N-470.U PiezoMike Linear Actuator](#)

[N-472 PiezoMike Linear Actuator](#)

[N-480 PiezoMike Linear Actuator](#)