

PILine® Motion Controller

FOR ULTRASONIC PIEZOMOTORS, COST- EFFICIENT AND COMPACT



C-877

- + Integrated power amplifier with dynamic frequency control
- + PID servo control with dynamic parameter switching
- + Data recorder
- + Powerful macro programming language, e.g., for stand- alone operation
- + Extensive software support, e. g., for LabVIEW, shared libraries for Windows and Linux

Servo controller and power amplifier

One and two channels, bench- top, special PID controller for ultrasonic piezomotors. Integrated power amplifier for PLine® drives and stages in performance classes 1 and 2 (C-877.1U11, only class 1). Dynamic frequency control for optimum control

Incremental encoders

Differential signal transmission (A/ B). TTL signal inputs for limit and reference point switches

Digital communication

USB and RS-232 interfaces. Data recorder. Powerful macro programming language, e. g., for stand- alone operation. Extensive software support, e. g., LabVIEW, dynamic libraries for Windows and Linux

Drawings / Images



Specifications

	C-877.1U11	C-877.2U12
Function	Controller for single- axis positioning or scanning stages with PLine® ultrasonic piezomotors (performance class 1)	Controller for single- axis positioning and scanning stages with PLine® ultrasonic piezomotors (performance class 1 and 2)
Channels	1	2
Motion and control		
Servo characteristics	PID controller, parameter change on- the- fly	PID controller, parameter change on- the- fly
Servo cycle time	100 µs	100 µs
Profile generator	Trapezoidal velocity profile	Trapezoidal velocity profile
Encoder input	A/ B quadrature TTL level, differential according to RS-422	A/ B quadrature TTL level, differential according to RS-422
Stall detection	Servo off, triggered by programmable position error	Servo off, triggered by programmable position error
Limit switches	2 x TTL (polarity programmable)	2 x TTL (polarity programmable)
Reference point switch	1 x TTL	1 x TTL
Electrical properties		
Max. output power per channel	15 W	24 W
Max. output voltage per channel	200 V _{pp} , 71 V _{eff}	200 V _{pp} , 71 V _{eff}
Interfaces and operation		
Interface / communication	USB	USB; RS-232
Motor connector	Sub- D 15- pin (f)	2 x Sub- D 15- pin (f)
Command set	PI General Command Set (GCS)	PI General Command Set (GCS)
User software	PIMikroMove	PIMikroMove
Software drivers	LabVIEW drivers, dynamic libraries for Windows and Linux	LabVIEW drivers, dynamic libraries for Windows and Linux
Supported functionality	Point- to- point motion, startup macro, data recorder for recording parameters such as motor voltage, velocity, position or position errors; internal safety circuitry: Watchdog timer; ID chip	Point- to- point motion, startup macro, data recorder for recording parameters such as motor voltage, velocity, position or position errors; internal safety circuitry: Watchdog timer; ID chip
Manual control	-	-
Miscellaneous		
Operating voltage	24 VDC from external power supply (included)	24 VDC from external power supply (included)
Max. current consumption	300 mA plus motor current (max. 0.8 A)	600 mA plus motor current (max. 4 A)
Operating temperature range	5 to 40 °C	5 to 40 °C
Mass	0.13 kg	2.4 kg
Dimensions	95 mm x 71 mm x 24 mm (incl. mounting rails)	320 mm x 150 mm x 80.5 mm (incl. mounting rails)

Order Information

C-877.1U11

Compact, Cost- Efficient Piezomotor Controller with Drive Electronics, 1 Channel, for PLine® Systems with Low Power Consumption

C-877.2U12

Compact Piezomotor Controller with Drive Electronics, 2 Channels, for PLine® Systems

Ask about custom designs!

Related Products

[C-867.U PLine® Motion Controller](#)

[U-624 Fast Miniature Rotation Stage](#)

[U-628 Fast Rotation Stage with Small Footprint](#)