

## Mercury Servo Controller

COST-EFFICIENT AND NETWORK-CAPABLE, FOR DC MOTORS AND BRUSHLESS DC MOTORS



### C-863

- High-speed encoder input to 60 MHz
- Macro programmable for stand-alone functionality
- Data recorder
- Non-volatile EEPROM for macros and parameters

#### Digital motion controller for DC servo motors

1 channel. Motion control of PI precision positioning systems with DC motors: direct motor control (analog out) and PWM output for fast PI stages with integrated ActiveDrive amplifiers or with brushless motors and integrated block commutation. PID controller. Supports motor brake

#### Extensive functionality

Powerful macro command language. Non-volatile macro storage, e. g. for stand-alone functionality with autostart macro. Data recorder. 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

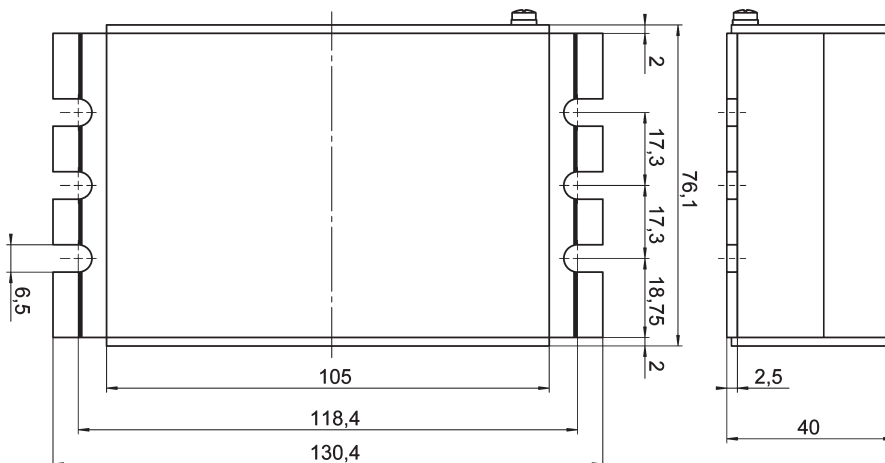
#### Accessories

- C-819.20 2-Axis Analog Joystick for Mercury Controller
- C-819.20Y Y-Cable for Connecting 2 Controllers to C-819.20
- C-170.IO I/O Cable, 2 m, Open End
- C-170.PB Pushbutton Box, 4 Buttons and 4 LEDs

C-863.11	
Function	DC servo-motor controller, 1 channel
Channels	1
<b>Motion and control</b>	
Servo characteristics	PID controller, parameter changes on the fly
Servo cycle time	50 $\mu$ s
Profile generator	Trapezoid velocity profile
Encoder input	AB (quadrature) single-ended or differential TTL signal acc. to RS-422; 60 MHz
Stall detection	Servo off, triggered by programmable position error
Limit switches	2 x TTL (polarity programmable)
Reference point switch	1 x TTL
Motor brake	1 x TTL, software controlled
<b>Electrical properties</b>	
Max. output voltage*	0 to $\pm$ 15 V for direct control of DC motor
Max. output power	30 W
Current limitation	2 A
<b>Interface and operation</b>	
Communication interfaces	USB; RS-232, Sub-D 9-pin (m)
Motor connector	Sub-D 15-pin (f)
Controller network	Up to 16 units** on a single interface
I/O ports	4 analog/digital in, 4 digital out (TTL), 5 V TTL
Command set	PI General Command Set (GCS)
User software	PIMikroMove
Software drivers	PI General Command Set shared library, LabVIEW driver, shared libraries for Windows and Linux
Supported functionality	Point-to-point motion, start-up macro, data recorder for recording parameters as motor input voltage, velocity, position or position error; internal safety circuitry: watchdog timer
Manual control	Optional: Pushbutton box, joystick (for 2 axes), Y-cable for 2-D motion
<b>Miscellaneous</b>	
Operating voltage	15 to 30 V, in the scope of delivery: external power supply 15 V / 2 A
Max. operating current	80 mA plus motor current (max. 3 A)
Operating temperature range	5 to 50°C
Ground	0.3 kg
Dimensions	130 mm x 76 mm x 40 mm

\* The output voltage depends on the connected power supply.

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



C-863, dimensions in mm