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Find the *Physik Instrumente C-862.10/1* at our website: *Click HERE*

This product family has been replaced by the following new product:
>> C-863 Mercury Servo Controller

C-862

Mercury™ II DC-Motor Controller/Driver



Mercury™ II Palm-Top Controller front and back view.
Euro and dollar coins for size comparison.

- **High Performance at Low Cost**
- **Integrated Driver, no External Amplifier Required**
- **Stand-Alone Functionality**
- **Daisy-Chain Network for Multi-Axis Applications**
- **Easy Address Setting**
- **Macro Command Language**
- **Non-Volatile EEPROM for Macros and Parameters**
- **Parameters can Be Changed On-the-Fly**
- **TTL Inputs for Limit & Origin Switches**
- **Motor-Brake Control**
- **Additional TTL I/O Lines**

The Mercury™ Palm-Top DC-Motor Controller is the perfect solution for motion control applications where a precision positioner is to be controlled by a PC or PLC (programmable logic controller).

Integrated Amplifier and PWM Outputs

The unique Mercury™ concept combines a high-performance motion controller and an integrated power amplifier in a small package. Additional PWM control outputs allow the direct operation of any DC-motor-driven PI micro-positioning system—even high-speed stages such as the M-500 ActiveDrive™ Translation Stages—reducing costs, increasing reliability and simplifying the setup.

Application Examples

- Flexible automation
- Quality control
- Test equipment
- Photonics packaging
- Fiber alignment

Dual Processor Architecture

The Mercury™ II controller employs a highly specialized processor providing high-performance PID motion control with many options for trajectory generation and filter settings. Position, velocity and other motion parameters can be changed on-the-fly. For increased system safety and performance, all communication and command parsing activity is handled by a second, independent processor. Any quadrature TTL incremental encoder can be used for position feedback (linear scales, rotary encoders, interferometers).

Limit and origin switch inputs and a motor-brake output are also standard.

Macro Command Language

The Mercury™ II controller offers a high-level mnemonic command language with macro and compound command functionality. Macros can be stored in the non-volatile EEPROM for later recall. An autostart macro is available to run automation tasks at power up (no run-time computer communication required!).

Network Capability

Up to 6 Mercury™ II controllers can be daisy-chained for multi-axis motion control applications.



Combination of 6 networked Mercury® Controllers

Ordering Information

C-862.00
Mercury™ II Palm-Top DC-Motor Controller Set, Including Power Supply

C-890.PS
Wide-Range Power Supply for Mercury Controller

C-862.CN
Additional Network Connecting Cable

C-862.IO
I/O Connecting Cable with Open End for C-862 Mercury™ Controller

C-862.PB3
Pushbutton Box for C-862

C-662.00
Mercury™-Step Stepper Motor Controller, Including Power Supply

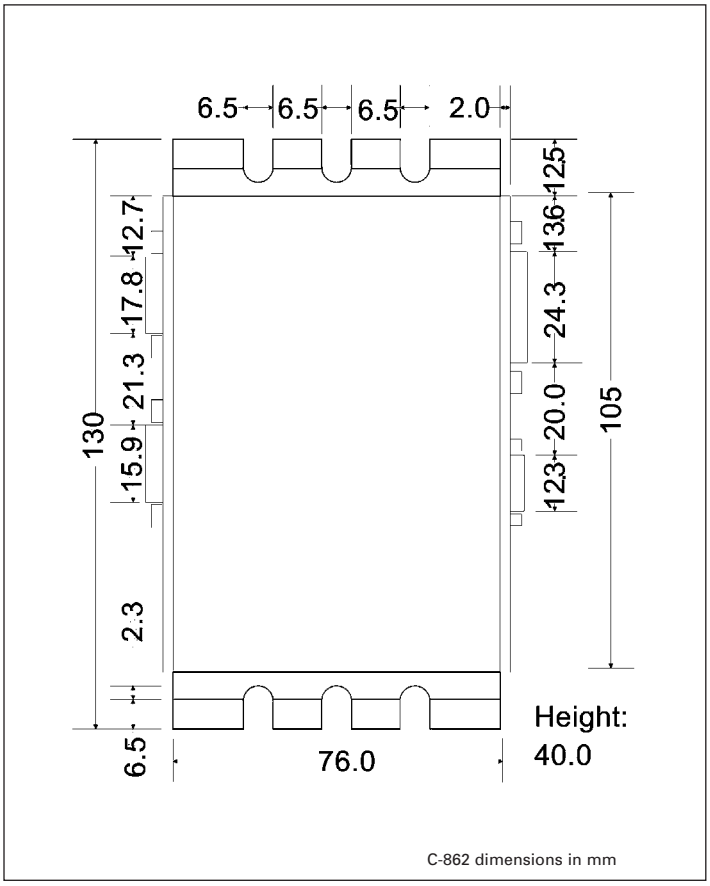
Each controller includes software, an RS-232 communications cable and a network cable. The C-862.00 set also includes the C-890.PS wide-range power supply, network-cable and a null modem cable for PC connection.

Stepper Motors

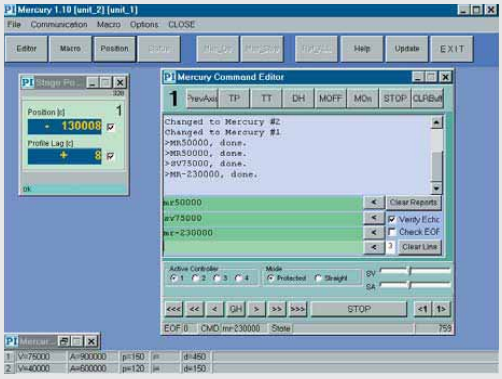
A stepper motor version of the C-862 is available as part number C-662.

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C-862 dimensions in mm



Mercury™ software, showing the terminal window and selection of controllers 1 through 4.

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Technical Data

Models	C-862
Function	Stand-alone DC-servo-motor controller
Servo characteristics	31-bit velocity, acceleration & position registers, 16-bit programmable PID, 256 µs, parameter changes on-the-fly
Output power	15-watt PWM on-board, additional output for PWM drivers
Encoder input	A/B (quadrature) TTL signals (single-ended or RS-422 differential mode), max. 10^6 counts / sec
Stall detection	Motor stop, servo off, triggered by programmable position error
Limit switches	2 TTL (pull-up/pull-down, programmable)
Origin switches	1 TTL (pull-up/pull-down, programmable), real-time position capture
Motor brake output	5 V TTL , software controllable
Additional I/O Lines	5 V TTL
Interface / Communication	RS-232, 9-pin (m) sub-D (cable included)
Command Set:	40 high-level mnemonic commands, ASCII format, compound & macro command capability (non-volatile EEPROM)
Motor connector	15-pin (f) sub-D
Internal safety features	Watchdog timer
Operating voltage	12 - 15 V, 1 - 2 A
Weight	0.3 kg

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