

Four Axis Motion Controller

FOR DC MOTORS AND BRUSHLESS DC MOTORS



C-884

- High-speed encoder input up to 50 MHz
- Non-volatile memory for stand-alone operation
- Data recorder
- Interfaces: TCP/IP, USB and RS-232
- USB interface for human interface devices

Digital motion controller for DC servo motors

4 channels. Dual core architecture for increased performance and flexibility by separating command processing and PID position control. Simple adaptation / extension for OEM products possible.

Motion control of PI positioning systems with DC motors: direct motor control, PWM control for PI positioning stages with integrated ActiveDrive amplifiers or for stages with integrated block commutation (brushless motors). 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

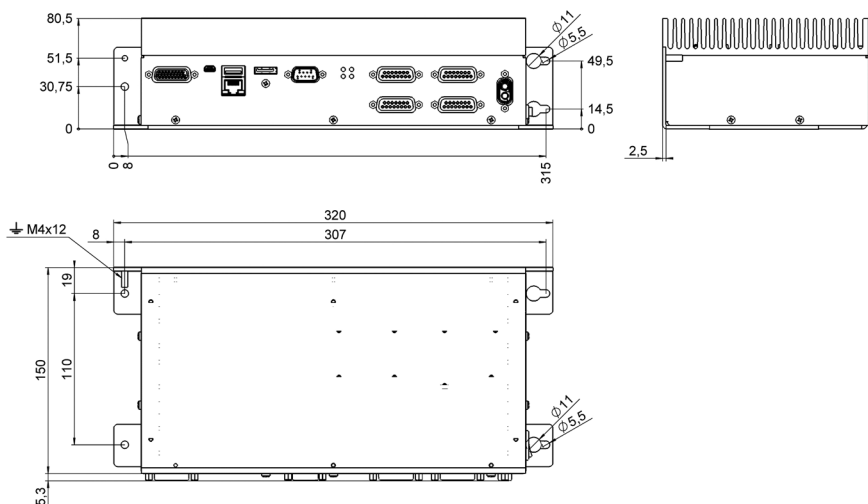
Mercury class motion controller

Interfaces: TCP/IP, 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. USB interface for HID compliant devices.

Delivery scope including wide-range power supply, USB and RS-232 cable, network cable

C-884.4D	
Function	Position control for closed-loop DC motors
Channels	4
Processor	Dual core architecture. Controller on DSP core, with extendable command interpreter on Linux ARM core
Motion and control	
Servo characteristics	PID controller, parameter changes on the fly
Servo cycle time	50 μ s
Profile generator	Trapezoid velocity profile
Encoder input	AB (quadrature) single-ended or differential TTL signal acc. to RS-422; 50 MHz
Stall detection	Servo off, triggered by programmable position error
Limit switches	2 x TTL per channel (polarity programmable)
Reference point switch	1 x TTL per channel
Motor brake	1 x TTL per channel, software controlled
Electrical properties	
Max. output voltage*	4 PWM full bridges with ± 2.5 A maximum output current each for direct motor control
Max. output power	240 W
Current limitation	2.5 A per channel
Interface and operation	
Communication interfaces	TCP/IP: RJ45/Ethernet, USB: Mini-USB type B, RS-232: Sub-D 9-pin (m)
Motor connector	4 x Sub-D, 15-pin (f)
I/O ports	4 analog in (-10 to 10 V), 4 digital in (5 V TTL), 4 digital out (5 V TTL)
Command set	PI General Command Set (GCS)
User software	PIMikroMove
Software drivers	LabVIEW driver, shared libraries for Windows and Linux
Supported functionality	Linear vector motion, point-to-point; start-up macro, data recorder for recording parameters as motor input voltage, velocity, position or position error
Manual control	USB interface for HID compliant devices
Miscellaneous	
Operating voltage	External power supply 24 V / 5 A (120 W) included in scope of delivery
Max. operating current	1 mA plus motor current (max. 11 A)
Operating temperature range	5 to 50°C
Mass	2.5 kg
Dimensions	320 mm x 150 mm x 80.5 mm (incl. mounting rails)

* The output voltage depends on the connected power supply.



C-884, dimensions in mm