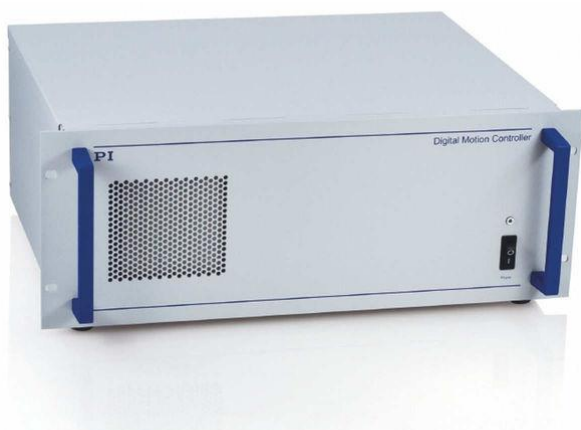


Controller for Hexapod Positioning Systems

6- D VECTOR MOTION CONTROL, COMPREHENSIVE FUNCTIONALITY



C-887

- + Sophisticated controller using vector algorithms
- + Freely programmable, virtual pivot point
- + Data recorder
- + Macro program functionality
- + Stand- alone operation possible and control through TCP/ IP and RS-232 interfaces
- + Extensive software support
- + Simulation software for working space and single strut analysis
- + Optional: Collision avoidance software

Digital controller for 6- axis parallel kinematics

Features control for two additional single axes with servo motors. Hexapods are by default configured and delivered as a system including a controller

- C-887.52 compact bench- top controller for a lower system price. Digital I/ O interfaces, e.g. for external triggering
- C-887.11 19" controller, comprises the control for two additional single axes with servo motors. Options: Control of piezo axes, photometer cards for visible light or infrared light range

Functions

Real- time system. Position control using Cartesian coordinates, vectorized motion. Stable, virtual pivot point can be defined freely in the working space. Data recorder for recording operating parameters such as motor control, velocity, position or position error. Macro command language. Stand- alone operation possible with Autostart macro or connection of keyboard and monitor. Optional: Manual control unit

Custom designs

Custom designs are available for use at high altitudes, e.g. for astronomical telescope applications. Evaluation of absolute- measuring sensors. Control of motor brakes. Evaluation of additional (redundant) position sensors for increased safety requirements, e.g. in medical technology

Extensive software

PIMikroMove user software. Common command set for all PI positioning systems. Dynamic libraries for Windows and Linux. Complete set of LabVIEW VI's. Graphical user interfaces, configuration software and graphically displayed scan routines. Optional: PIVeriMove software for checking a restricted operating space

Interfaces

TCP/ IP Ethernet can also be used for remote control and service, RS-232. Monitor, mouse and keyboard interface. On request: RS-422 for up to 1.4 km cable length

Upgrades for C-887.11 (order separately)

- Analog interfaces / photometer cards for visible light (F-206.VVU) or the infrared light range (F-206.iiU)
- F-206.NCU fast piezo nano- alignment system for alignment with nanometer precision

Accessories

- C-887.MC manual control unit for Hexapods, USB, 3 m cable
- C-887.VM1 PIVeriMove software for collision checking

Specifications

	C-887.11	C-887.52
Function	6D controller for Hexapods, incl. control of two additional single axes 19" case, rack mountable	6D controller for Hexapods, incl. control of two additional single axes Compact bench-top
Drive type	Servo motors (Hexapod and single axes) Optional: Piezo drives	Servo motors (Hexapod and single axes)
Motion and control		
Servo characteristics	32-bit PID filter	
Trajectory profile modes	Trapezoid, linear interpolation	Jerk-controlled generation of dynamics profile with linear interpolation
Processor	CPU: 1.8 GHz, motion control chip with 2.5 kHz servo update rate	CPU: ATOM dual-core (1.8 GHz) Motion control chip with 10 kHz servo update rate
Encoder input	AB (quadrature) differential TTL signal, 5 MHz	AB (quadrature) differential TTL signal, 50 MHz
Stall detection	Servo off, triggered by position error	
Reference point switches	TTL level	
Electrical properties		
Max. output power per channel	10-bit outputs for PWM drivers, 24 kHz	12-bit outputs for PWM drivers, 24 kHz
Max. output voltage per channel	TTL in PWM operation for SIGN and MAGN	
Interfaces and operation		
Interface / communication	TCP/IP, RS-232 VGA (monitor), USB (keyboard, mouse, manual control unit)	TCP/IP, RS-232 USB (manual control unit)
Hexapod connection	MDR 68-pin for data transfer M12 4-pin power input	HD Sub-D connector 78-pin (f) for data transfer M12 4-pin power input
Connectors for single axes	Sub-D connector 15-pin	
I/O ports	Optional: Analog inputs (photometer cards)	HD Sub-D 26 (f): 4 × analog input (-10 to 10 V; 12 bit) 4 × digital input (TTL) 4 × digital output (TTL)
Command set	PI General Command Set (GCS)	
User software	PIMikroMove	
Software drivers	LabVIEW driver, dynamic libraries for Windows and Linux	
Manual operation	Optional: C-887.MC control unit for Hexapods	
Miscellaneous		
Operating voltage	100 to 240 VAC, 50 / 60 Hz	24 V, max. 8 A, external power supply for 100 to 240 VAC, 50 / 60 Hz, in the scope of delivery
Operating temperature range	5 to 40 °C	
Mass	11 kg	2.8 kg
Dimensions	395 mm × 483 mm × 185 mm	280 (320) mm × 150 mm × 103 mm Power supply: 170 mm × 85 mm × 42.5 mm

Order Information

C-887.52

6D Hexapod Controller, TCP/IP, RS-232, Bench-Top Device, Control of Two Additional Servo-Motor Axes Included

C-887.11

6-D Hexapod Controller, Control of 2 Additional Servo-Motor Axes Included, TCP/IP and RS-232 Interface, 19" Chassis

Accessories

C-887.MC

Hexapod Control Unit, USB Connector, 3 m Cable

C-887.VM1

PIVeriMove Software for the Collision Check

F-206.NCU

Rapid 3-Axis Piezo Nanopositioning System for Use in Combination with Hexapod Systems. Consists of P-611.3SF NanoCube® XYZ Nanopositioning System, 100 µm × 100 µm × 100 µm, Strain Gauge Sensors with Integrated Fiber Adapter Interface and E-760.3S0 NanoCube® Piezo Controller Board, ISA Bus

F-206.iiU

Photometer Card, IR Range, 2 Channels

F-206.VVU

Photometer Card, Visible Range, 2 Channels

Related Products

[H-810 6- Axis Miniature Hexapod](#)

[H-811 6- Axis Miniature Hexapod](#)

[H-824 6- Axis Hexapod](#)

[H-840 6- Axis Hexapod](#)

[H-850 6- Axis Hexapod](#)

[H-206 6- Axis Precision Alignment System](#)

Technology

[Hexapod- Specific Software from PI | Due to their parallel kinematic structure, Hexapods necessitate a particularly complex control system. Learn more ...](#)

Drawings / Images

C-887.52

