ZC300 Series Motion Controller, 1–3 Axes, Built-in Motor Driver, USB

Model ZC300 Series · waveqvanta.com/products/zc300-series-motion-controller

Compact point-to-point position controller for one to three axes with built-in drivers and Modbus commands.



The ZC300 series is a point-to-point position control system for one to three axes. Motor drivers are built in, and the controller combines a simple front-panel interface, a range of function parameters and Modbus-protocol control commands to make system integration straightforward.

Key features

- Controls 1 to 3 axes in point-to-point positioning
- Built-in motor drivers; output frequency 15 Hz–65 kHz with trapezoidal acceleration
- Modbus-protocol command set over USB or optional RS485
- 128 × 64 dot backlit, wide-angle LCD with motion-control and numeric keys
- Emergency stop key halts all connected stages
- Independent limit and origin sensor inputs on each axis; optional 3 isolated inputs and 3 outputs

Specifications

Axes	1–3
Output Frequency	15 Hz–65 kHz
Acceleration / Deceleration	Trapezoidal
Motor Driver	Built in
Display	LCD, 128 × 64 dots, backlit, wide viewing angle
Communication	USB; RS485 optional
Command Protocol	Modbus
Signal Detection	Independent left/right limit and origin sensor inputs per axis
I/O Inputs	3 optocoupler-isolated inputs (optional)
I/O Outputs	3 open-collector optocoupler-isolated outputs (optional)
Front Panel	Motion-control keys, numeric keys, emergency stop key
Power Supply	180–264 V AC
Dimensions	344 × 329 × 134 mm
Weight	≤ 6 kg
Operating Temperature	0–60 °C
Storage Temperature	−20 to 80 °C
Operating Humidity	20–85%
Storage Humidity	0–95%

Typical applications

- Control of motorized linear and rotation stages
- System integration via Modbus commands
- Laboratory positioning setups
- Automated test fixtures