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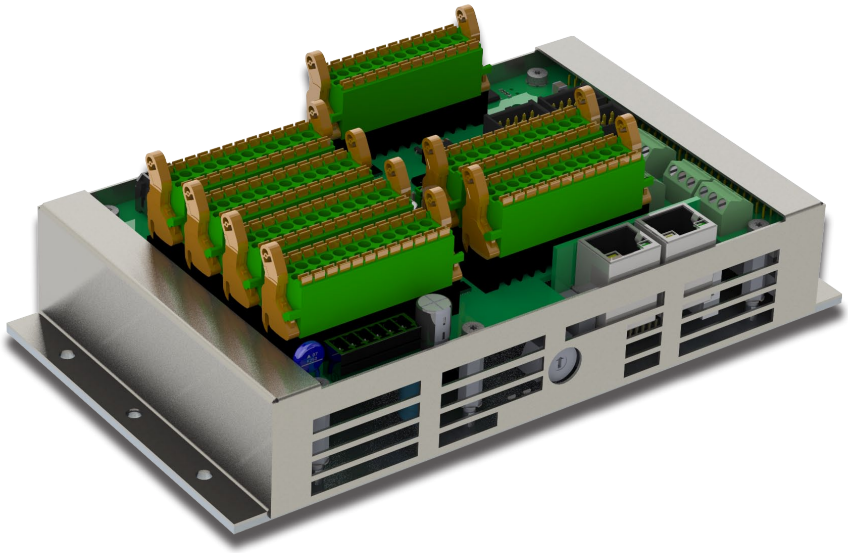
INDEL
Indelligent Automation

GIN-MAX4x4

Compact Motion Board



- Up to 32 kHz position loop
- Various analog and digital I/Os
- Full-fledged GinLink master with PRO version

Facts	
Motor voltage	24 to 48 V_{DC}, 60 V_{MAX}
Motor current per axis	Single mode: 2.5 A_{RMS}, 5 A_{RMS} peak Dual mode: 5 A_{RMS}, 10 A_{RMS} peak
Control frequency	up to 32 kHz
Motor types	PM synchronous, stepper, linear, DC
Feedback examples	2 × SinCos / Digital-Incremental 4 × EnDat 2.2 / BiSS-C / Digital-Incremental
Digital I/Os	24 × digital inputs 24 V 16 × digital outputs 24 V / 2 A
PWM	3 × outputs 2.5 A
Pulsators	2 × high-resolution outputs
Analog I/Os	14 × analog inputs 4 × analog outputs
Speed filter	Luenberger observer
Current filter per axis	4 × low-pass / notch
Interfaces	GinLink slave / GinLink master* Gigabit Ethernet RS232
CPU	ARM Cortex A9 single-core 800 MHz / ARM Cortex A9 dual-core 800 MHz *
Non-Volatile Memory	8 MByte flash 512 KB NVRAM *
Operating system	Indel real-time OS (INOS)
Dimensions	42 × 182 × 102 mm (h × w × d)

* With PRO option

The compact design of the GIN-MAX4x4 motion board, which consists of a motion and a distribution board, enables machine designs in the smallest of spaces. Up to four axes can be controlled in a coordinated manner. All conventional motor and encoder systems are supported. If required, two motor output stages can be connected in parallel to double the output power.

In addition to the motors, a wide range of analogue and digital peripherals such as dispensers, solenoid valves, PT100 temperature sensors and buttons can be connected. Furthermore, three PWM outputs are available, which can be used for any resistive and inductive loads such as the illumination of camera systems.

The GIN-MAX4x4 board is also available as PRO version, which is equipped with a dual-core CPU and GinLink master functionality. The additional CPU core makes it possible to implement the complete machine control on the motion board.

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