

World First Ethernet & PoE motion control card FiveCo Thursday 19 February 2004

This is the world first Ethernet and PoE motion control card. This small card (81x71x20) allows you to control small and medium size electrical DC motor (with brushes) from 1 to 70W (continuous power). You can control speed or position of the motor using the integrated PID regulation algorithm using a web browser interface.



This is a compact four quadrant motion control board for brushed DC motors. This card offers the best performance/price ratio available on the market. It is small (7x7 cm) and has an high quality motion regulation (32bit PID, 4kHz loop). The card may be used to control DC motors from 2 to150 [W] in position or speed as well as a trapezoid speed profile trajectory (encoder needed). This solution basically prevents motor wear because the current is always calculated in order to optimize the rotation of the motor.

Hi-Precision control

With a 4000Hz regulation loop maximum frequency this board offers an optimum solution also for those who need quick control of small mechanical systems. (precision tooling, medical devices, drug delivery, small robotics,)

Integrated Security

The board includes an automatic and configurable current limitation system, an integrated limit control and a programmable watchdog that avoid problems when an important breakdown occurs.

Ethernet controlled

The main interface of this card is the Ethernet protocol. You simply have to connect it to an Ethernet network (private or public) and you will be able to configure the settings and communicate the orders to the card. Every computer is now provided with an Ethernet port (Network card), cables and hubs are available worldwide at low prices.

Power Over Ethernet (IEEE 802.3af)

This card is compatible with the newly approved IEEE 802.3af industrial standard (3Com, Nortel Networks, Texas Instruments...) that allows to power devices using the existing Ethernet cables. FiveCo's card is the world's first motion control card that can be powered from a PoE compliant hub up to 16W (48V - 0.35A).

Http browser configuration

Nothing has never been so simple so far. Just connect the card with the Ethernet connection of your PC/MAC. Run your Internet Browser (Java enabled) and load the default configuration page stored on the card (no Internet access needed). You are then allowed to change the parameters of the card.

Main Control

The card can be controlled with different solutions:

- a) For a very simple application it is enough to connect two buttons to the external limit connector and to program once the regulation parameters through the Ethernet cable (speed and/or position).
- b) The card can be connected to an industrial PLC (Programmable Logic Controller) that offers an Ethernet connection. (used to connect the PLC on the network) and then send TCP commands to the card.
- c) The card can also be controlled by a PC provided with an Ethernet card. High Level commands (ex: "go to position 1200") can be sent through a TCP socket connection between the card and the host application.
- d) Especially dedicated software can be developed in different languages that include a TCP socket communication. Software can be written in C/C++, Pascal, Delphi, Labview or many others languages

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