



STEPPER MOTOR CONTROL CARDS

The most complete range of cards for the intelligent control of stepper motors

Our motion cards are the perfect solution to manage stepper one axis or multi-axes motors with nominal current up to 0.75A. The position commands are directly sent to the motor by the personal computer through USB, serial or ethernet interface, so to answer to the best all customers' necessities.

MT2USB



Control card for two stepper motors with USB interface

GENERAL FEATURES

- Control and communication logic self supplied through the USB interface
- Motors power supply from 5 up to 36 Vdc
- Output current 0.6 A/motor phase (1,2A of peak)
- Half-step control
- Auxiliary exit (*open collector*. Max 200mA)
- Programmable speed from 35 up to 1000 half-step/s
- Braking action activable when the motor is not running

- Limit/home detectors (one for each axis) with adjustable polarity. Use of optical sensors or mechanical switches by choice.
- Position: from more than -1,2 millions up to more than +1,2 millions of half-steps
- Possibility to activate the home position research at the power up (position on «limit detection»).
- Further limit-home detection movements (negative run) lockable
- Possibility of multi-cards connection to the PC to simultaneously manage a customized number of axes.
- Dimensions : 60 x 80 x 15 mm

MT2USB MICROSTEPPER



High resolution control card for two stepper motors with USB interface

GENERAL FEATURES

- **Constant current motor driving through PWM control**
- Control and communication logic self supplied through the USB interface
- Motors power supply from 4,5 up to 30 Vdc
- Output current 0.75 A/motor phase (0,85A of peak)
- **Step, half-step, 1/4 step and 1/8 step programmable control**
- Control limit/home detectors (one for each axis) with adjustable polarity. Use of optical sensors or mechanical switches by choice.
- Auxiliary exit (*open collector*. Max 200mA)

- Programmable speed from 18 up to 500 microsteps/s.
- Position: from more than -600.000 up to more than +600.000 of microsteps
- Braking action activable when the motor is not running always with PWM current control
- Possibility to activate the home position research at the power up (position on «limit detection»).
- Further limit-home detection movements (negative run) lockable
- Possibility of multi-cards connection to the PC to simultaneously manage a customized number of axes.
- Dimensions : 60 x 80 x 15 mm



MT2ETH



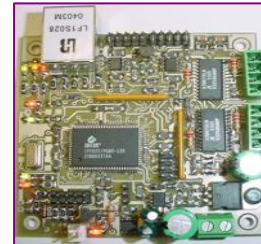
Control card for two stepper motors with ethernet interface

GENERAL FEATURES

- **Management as a server with a personal TCP/IP address et enter control**
- Power supply : from 7 up to 15 Vdc
- Consumption: 250mA @ 12 Vdc (except the motors and auxiliary exit consumption)
- Output current 0.6 A/motor phase (1,2A of peak)
- Half-step control
- Auxiliary exit (*open collector*. Max 200mA)
- Programmable speed from 1 up to 1.000 half-step/s
- Braking action activable when the motor is not running

- Limit/home detectors (two for each axis) with adjustable polarity. Use of optical sensors or mechanical switches by choice.
- Position: from more than -2 milliards up to more than +2 milliards of half-steps
- Possibility to activate the home position research at the power up (position on «limit detection»).
- Further limit-home detection movements (negative run) lockable
- Possibility of multi-cards connection to the PC (or to an HUB) to simultaneously manage a customized number of axes.
- Dimensions : 75 x 75 x 15 mm

MT2ETH MICROSTEPPER



High resolution control card for two stepper motors with ethernet interface

GENERAL FEATURES

- **Management as a server with a personal TCP/IP address et enter control**
- **Constant current motor driving trough PWM control**
- Power supply : from 7 up to 15 Vdc
- Consumption: 250mA @ 12 Vdc (except the motors and auxiliary exit consumption)
- Output current 0.75 A/motor phase (0,85A of peak)
- **Step, half-step, 1/4 step and 1/8 step programmable control**
- Auxiliary exit (*open collector*. Max 200mA)
- Programmable speed from 1 up to 1.000 microstep/s

- Braking action activable when the motor is not running always with PWM current control
- Limit/home detectors (two for each axis) with adjustable polarity. Use of optical sensors or mechanical switches by choice.
- Position: from more than -2 milliards up to more than +2 milliards of microsteps
- Possibility to activate the home position research at the power up (position on «limit detection»).
- Further limit-home detection movements (negative run) lockable
- Possibility of multi-cards connection to the PC (or to an HUB) to simultaneously manage a customized number of axes
- Dimensions : 75 x 75 x 15 mm

These cards with ethernet interface can be directly connected to a PC or to internet or ethernet. Thanks to this, their management can be done from any PC connected to the net



MT2



Control card for two stepper motors with serial interface

GENERAL FEATURES

- Power supply : from 7 up to 15 Vdc
- Consumption: 60mA @ 12 Vdc (except the motors and auxiliary exit consumption)
- Output current 0.6 A/motor phase (1,2A of peak)
- Half-step control
- Auxiliary exit (*open collector*. Max 200mA)
- Programmable speed from 35 up to 1.000 half-step/s
- Braking action activable when the motor is not running

- Limit/home detectors (one for each axis) with adjustable polarity. Use of optical sensors or mechanical switches by choice
- Position: from more than -1,2 millions up to more than +1,2 millions of half-steps
- Possibility to activate the home position research at the power up (position on «limit detection»).
- Further limit-home detection movements (negative run) lockable
- Possibility of multi-cards connection to the PC to simultaneously manage a customized number of axes
- Dimensions : 60 x 80 x 15 mm

MT2 MICROSTEPPER



High resolution control card for two stepper motors with serial interface

GENERAL FEATURES

- Constant current motor driving trough PWM control**
- Power supply : from 7 up to 15 Vdc
- Consumption: 60mA @ 12 Vdc (except the motors and auxiliary exit consumption)
- Output current 0.75 A/motor phase (0,85A of peak)
- Step, half-step, 1/4 step and 1/8 step programmable control**
- Auxiliary exit (*open collector*. Max 200mA)
- Programmable speed from 18 up to 500 microstep/s
- Position: from more than -600.000 up to more than +600.000 microsteps

- Braking action activable when the motor is not running always with PWM current control
- Limit/home detectors (one for each axis) with adjustable polarity. Use of optical sensors or mechanical switches by choice.
- Possibility to activate the home position research at the power up (position on «limit detection»).
- Further limit-home detection movements (negative run) lockable
- Possibility of multi-cards connection to the PC to simultaneously manage a customized number of axes
- Dimensions : 60 x 80 x 15 mm

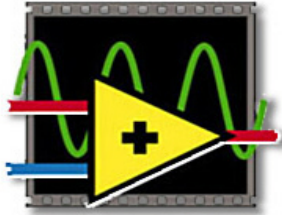


Ideazione Progettazione Sviluppo Elettronica Scientifica
 Conceiving, Planning and Development in Scientific Electronics

STEPPER MOTOR CONTROL CARDS

The most complete range of cards for the intelligent control of stepper motors

Library VI for National Instruments LabVIEW



Library VI to develop customized LabVIEW applications

GENERAL FEATURES AND PERFORMANCES

- **Supporting LabVIEW 7.1.**
- A library contains the functions through which is possible to manage the connection with the card. These functions are closely related at the device features.
- A second higher level library contains that functions to be used for application development.

- Availability of an help file that describes the use of the functions in the library.
- Availability of examples of application development with LabVIEW library functions: the examples give an introduction to how implement personalized remote control of the stepper motor control cards.

Besides Library VI, different programming languages demo softwares are available for a free downloading on the internet website: <http://www.ipses.com>

DLL for Windows 95/98/ME/2000/NT/XP



DLL to develop customized LabVIEW applications

GENERAL FEATURES AND PERFORMANCES

- A *Windows driver* which has two DLL is available. The first DDL, called **VCP** (*Virtual Com Port*), creates a virtual serial port for each device connected, allowing them to be controlled through a simple serial protocol. The second DLL, called **D2XX**, manages the communication directly toward the **USB**: with the DLL it is possible developing *ad-hoc* management software.

- Possibility of recalling these libraries from any developing environment allowing the interface to dynamic libraries.
- Supporting any 32 bit Windows operation system.
- Royalty free

D2XX functions user manual is available for a free downloading on the internet website: <http://www.ipses.com>

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