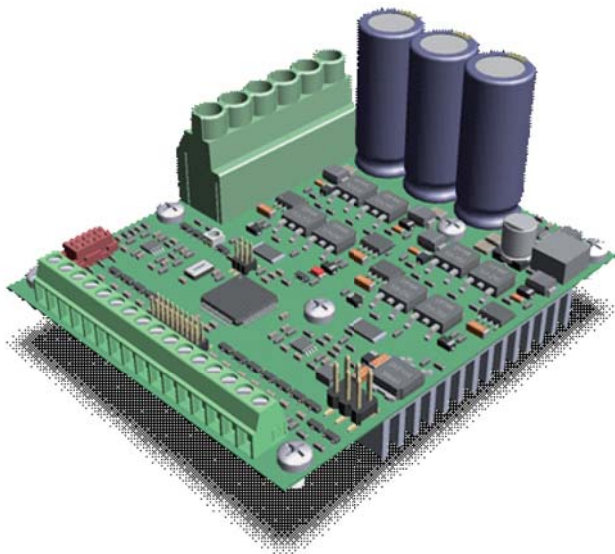




PF.0100

Electronic driver for 1 or 2 independent actuators or 2 synchronized actuators 12/24V 15A



FEATURES

- Independent control and synchronous mode
- Driver power stage operates with PWM
- Customizable acceleration and deceleration ramps
- Extreme precision and control for movement and brake
- Current and temperature limit
- Stop with limit switches
- Parameters editable in an easy and fast way thanks to a PC interface and through a USB serial converter
- Control of movements in synchronous mode by encoders with Hall effect; setting of the electronic limit switches opening and closing
- Compatible with a wide range of products and different applications
- High efficiency and low losses of power stage

PF.0100 is designed for two different modes: control of one or two independent actuators and control of two synchronized actuators with DC motors through MOSFET transistors with pulse width modulation (PWM).

In mode "2 synchronized actuators", PF.0100 ensures the balancing of actuators also in case of extremely different loads in terms of weight, shape, or distribution on the surface, allowing a stroke without any difference between the two actuators.

TECHNICAL DATA

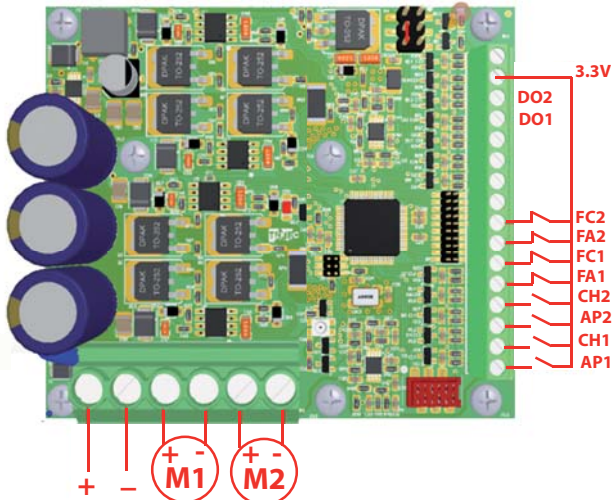
- Power supply: 12 to 48 V DC, maximum ripple 20%
- Output current: 15 A for actuator, in duty cycle S3 - 30% - 5 minutes
- PWM frequency 10 kHz
- Stand by power consumption: 50 mA @ 24 V
- 12 digital inputs (3-12 V): 8 for commands and limit switches, 4 for encoders (max 1 kHz), with operating logic programmable (positive/negative)
- 2 digital outputs NPN open collector (max 50 mA - 24 V): one for the fault and one programmable
- Dimensions:
 - without heat sink for currents up to 10 A: 86x72x30 mm (WxHxD)
 - with heat sink for currents over 10 A: 86x72x50 mm (WxHxD)

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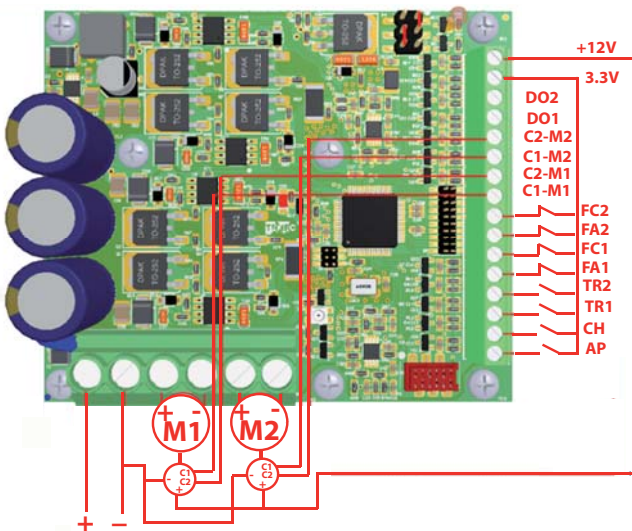
info@mecvel.com www.mecvel.com



EXAMPLE OF CONNECTION - INDEPENDENT MODE

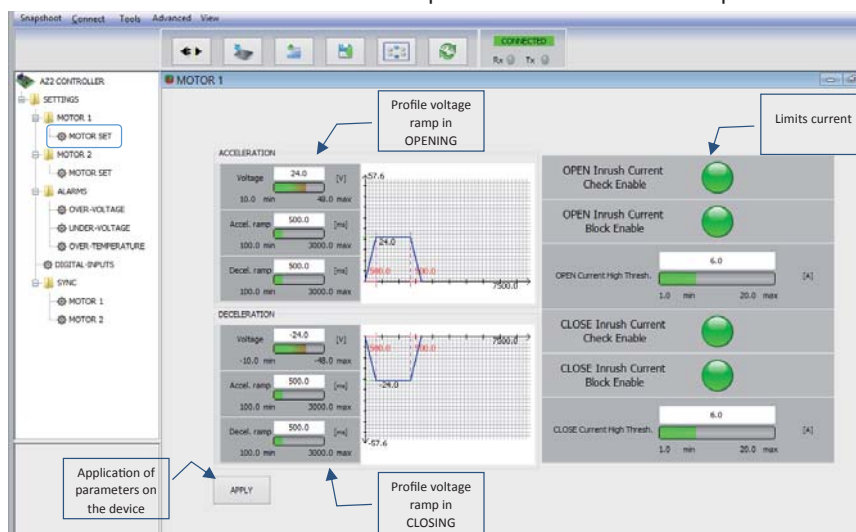


EXAMPLE OF CONNECTION - SYNCHRO MODE



SOFTWARE INTERFACE

PF.0100 interface allows to access and set parameters and control the operation in real time.



Example of editable parameters (basic version):

- Acceleration ramp OPENING
- Deceleration ramp OPENING
- Voltage OPENING
- Acceleration ramp CLOSING
- Deceleration ramp CLOSING
- Voltage CLOSING
- Limit current OPENING
- Limit current CLOSING

Example of monitorable values:

- Supply voltage
- Drive temperature
- Operating time
- Operating mode
- Current and voltage of motors
- Motor blocked
- Pulse counting, difference of position, estimated speed
- Digital inputs status: commands and limit switches

POWER TERMINALS

(Horizontal terminals)

1. "+": positive supply
2. "-": GND
3. "M1+": actuator 1, positive power supply (voltage > 0 opening)
4. "M1-": actuator 1, GND
5. "M2+": actuator 2, positive power supply (voltage > 0 opening)
6. "M2-": actuator 2, GND

SIGNAL TERMINALS

(Vertical terminals)

- | | | |
|----|-------|--|
| 1 | AP1 | Opening command actuator 1 |
| | AP | Opening command synchro mode |
| 2 | CH1 | Closing command actuator 1 |
| | CH | Closing command synchro mode |
| 3 | AP2 | Opening command actuator 2 |
| | TR1 | Enable command independent actuator 1 synchro mode |
| 4 | CH2 | Closing command actuator 2 |
| | TR2 | Enable command independent actuator 2 synchro mode |
| 5 | FA1 | Opening limit switch actuator 1 |
| 6 | FC1 | Closing limit switch actuator 1 |
| 7 | FA2 | Opening limit switch actuator 2 |
| 8 | FC2 | Closing limit switch actuator 2 |
| 9 | C1-M1 | Encoder motor 1 – channel 1 synchro mode |
| 10 | C2-M1 | Encoder motor 1 – channel 2 synchro mode |
| 11 | C1-M2 | Encoder motor 2 – channel 1 synchro mode |
| 12 | C2-M2 | Encoder motor 2 – channel 2 synchro mode |
| 13 | DO1 | Digital output 1: FAULT |
| 14 | DO2 | Digital output 2: programmable |
| 15 | | +3.3V (for command and limit switches) |
| 16 | | +12V (for power supply encoder) |



MecVel reserves the right to change products information and/or features without notice; all data contained in this catalogue are purely indicative and not binding for the company.