

# CAN-STEPCON-1H

## High Current Stepper Motor Controller

- 3 A stepper motor output
- brake output
- 3 limit switch inputs
- easy mounting
- CiA DS-402 implementation

### Full Stepper Control

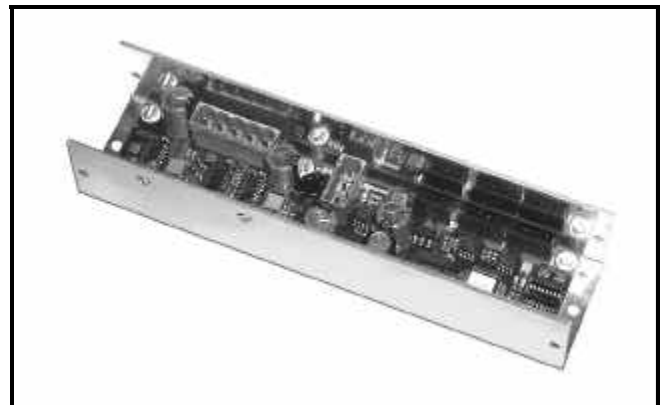
The module offers full control for one high current stepper motor channel by CiA DS-402 commands. It is equipped with two motor driver bridges that support up to  $\pm 3$  A output current. The three limit switch inputs are designed for slotted light switches. The brake output is equipped with a low side switch.

### Intelligent Microcontroller

The CAN-STEPCON-1H module is equipped with a C505CA-microcontroller with an integrated CAN interface. 2 Kbyte EEPROM is used to store module configuration data.

### LED Display and Coding Switch

The status LEDs display the CAN status of the module. The coding switch is used to set the bit rate (2 bits) and the Node-ID (6 bits).

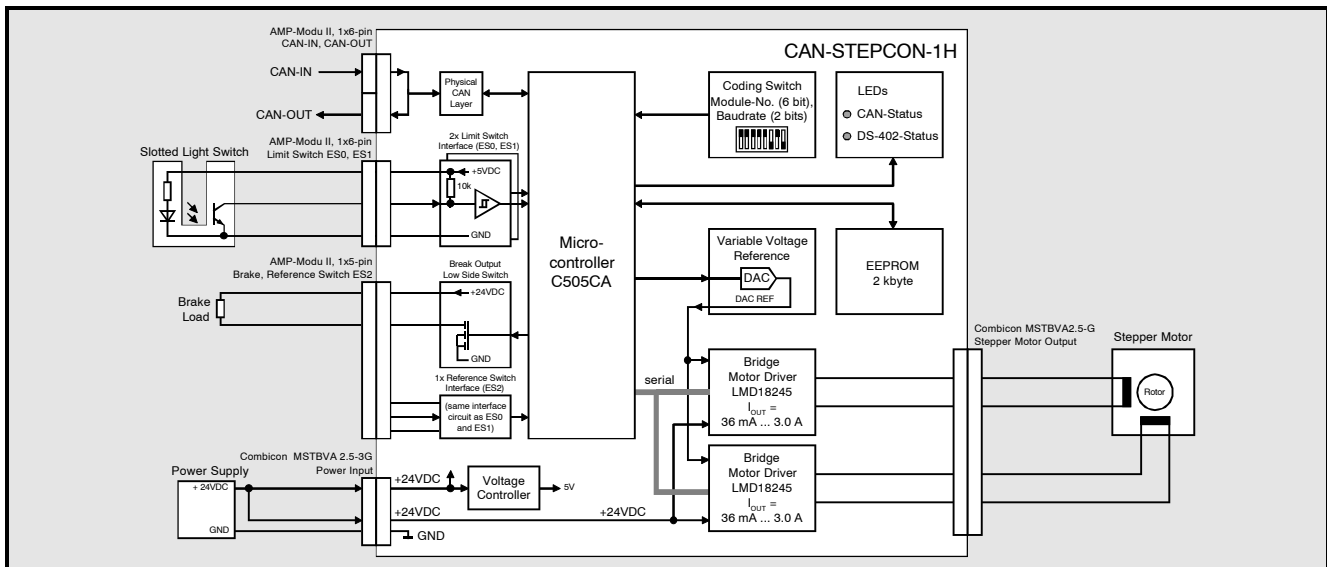


### CAN Bus

The physical CAN layer is ISO 11898-compliant and allows data-transfer rates of up to 1 Mbit/s.

### CAN Protocols

The module is operating with CANopen according to CiA-DS-301 and DS-402.



### Technical Specifications:

Stepper motor interface:	
Stepper output:	H-bridge with 2 motor driver controllers LMD18245, $U_{VCC} = 12 \text{ VDC} \dots 55 \text{ VDC}$ , programmable $I_{OUT} = 36 \text{ mA} \dots 3.0 \text{ A}$ , overtemperature and overcurrent ( $I_{LIMIT\_TYP} = 12 \text{ A}$ ) protection
Limit switch inputs:	3-pin connection for slotted light switches: +5 V power supply output, CMOS Schmitt-Trigger input 74HC86, GND
Brake output:	low side switch, $U_{VCC} = 24 \text{ VDC}$ , $I_{NOM} = 1.4 \text{ A}$ , over current protection ( $I_{LIMIT\_TYP} = 7.5 \text{ A}$ )
CAN:	
CAN controller:	C505CA, CAN2.0A (supported by firmware)
CAN interface:	differential, 1 Mbit/s, ISO11898, no electrical isolation of physical layer
Protocol:	CANopen DS-301, DS-402

General:	
LED display:	CAN status, DS-402 status
Ambient temperature:	0...50 °C
Operating voltage $U_{VCC}$ :	24 VDC (separate power supply for stepper motor drivers possible)
Case dimensions:	40 mm x 35 mm x 160 mm, 6 holes (diameter 3.5 mm) for fastening screws
Order information:	
Designation	order no.
CAN-STEPCON-1H	stepper motor controller, CANopen DS-402 C.2090.01
CAN-STEPCON-1H-MD	German users's manual C.2090.20
CAN-STEPCON-1H-ME	English users's manual C.2090.21