

TMCM-351

3-Axis Controller / Driver 2.8A / 24V Encoder Interface Optional CANopen Firmware

INFO The TMCM-351 is a powerful triple axis 2-phase stepper motor controller/driver module with encoder interface. Using the integrated additional I/Os it even can do complete system control applications. The motors and switches can be connected easily with screw or crimp style connectors. The connection of the ${
m I}{\it I}$ TMCM-351 comes with the PC based software development environment TMCL-IDE for the Trinamic Motion Control Language (TMCL). Using predefined TMCL high level commands like "move to position" or "constant rotation" rapid and fast development be controlled via RS-232, RS485, CAN or USB interface. Communication traffic is kept very low since all time critical operations, e.g. ramp calculation are performed on board. A user TMCL program can be stored in the on board EEPROM for stand-alone via CANopen. The firmware of the module can be updated via the serial interface. With the stallGuard™ feature it is possible to detect overload and stall of the motor.

Os, the encoder and SPI can be done via a two row header. The of motion control applications is guaranteed. The TMCM-351 can operation. An optional firmware allows to control the TMCM-351

TMCM-351 Driver Driver Driver Drive V Power Supply

MAIN CHARACTERISTICS

ELECTRICAL

· up to 2.8A coil current RMS

· nom. 24V DC supply voltage (28.5V DC max)

· two-phase bipolar motors with SUPPORTED up-to 2.8A coil current

INTERFACE · RS-232, RS-485, CAN 2.0b host and USB se-

rial communication interfaces

· inputs for reference and stop switches · general purpose analog and digital I/Os

· SPI connector with three chip select signals for I/O extension

FEATURES • each axis individually programmable

· closed loop operation with TMCL possible

· up to 64 times microstepping

· memory for 2048 TMCL commands

· motion profile generation in real-time

· on the fly alteration of motion parameters

· dynamic current control

stallGuard™ for sensorless stall detection

· integrated protection

· TRINAMIC driver technology: low power dissipation, no heatsink required

software · stand-alone operation using TMCL or remote controlled operation

> PC-based application development software TMCL-IDE included

· optional CANopen firmware (CiA 301, 402)

OTHER • pluggable screw or crimp style connectors

· RoHS compliant

size: 160 x 100 mm²

ORDER CODE	DESCRIPTION
TMCM-351-E (-opt.)	TMCM-351 with encoder interface
OPTIONS	
TMCL	with TMCL firmware
CANopen	with CANopen firmware

Mouser Electronics

Authorized Distributor

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Trinamic:

TMCM-351-E-TMCL