

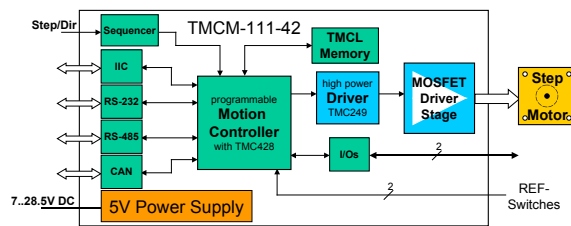
# TMCM-111-42

**1-Axis  
Motor Mounted  
Controller / Driver  
2.8A / 28.5V**

**INFO** The TMCM-111-42 is an intelligent stepper motor controller and driver module to be mounted directly on a 42 mm flange motor. This dual-PCB module converts the motor into a compact mechatronic device with bus oriented or stand-alone control. The motor, switches, power and the multi purpose I/Os can be connected with small pluggable connectors. The TMCM-111 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“ a rapid and fast development of motion control applications is guaranteed. The TMCM-111 can be controlled via an RS-232, RS-485, I2C or CAN interface. Communication traffic is kept very low since all time critical operations, e.g. ramp calculation are performed on board. The TMCL program can be stored in the on-board EEPROM for stand-alone operation. The firmware of the module can be updated via the serial interface. With the stallGuard™ feature it is possible to detect motor overload or motor stall.

MAIN CHARACTERISTICS

- ELECTRICAL DATA**
  - up to 2.8A coil current RMS (4A peak)
  - 7V to 28.5V motor supply voltage
- SUPPORTED MOTORS**
  - two-phase bipolar motors with 1A to 2.8A coil current
- INTERFACE**
  - RS-232, RS-485, I2C, or CAN 2.0b host interface
  - 2 inputs for reference and stop switches
  - 1 general purpose input and 1 output
- FEATURES**
  - high accuracy 64 times microstepping
  - high current for highly dynamic drive
  - memory for 2048 TMCL commands
  - automatic ramp generation in hardware
  - on the fly alteration of motion parameters (e.g. position, velocity, acceleration)
  - stallGuard™ for sensorless motor stall detection
  - full step frequencies up to 20kHz
  - dynamic current control
  - TRINAMIC driver technology: low power dissipation
- SOFTWARE**
  - stand-alone operation using TMCL or remote controlled operation
  - PC-based application development software TMCL-IDE included
- OTHER**
  - pluggable connectors
  - RoHS compliant
  - size: 42 x 42 mm<sup>2</sup> (2 stacked PCBs)



ORDER CODE	DESCRIPTION
<b>TMCM-111-42 (-option)</b>	1-axis 1-axis controller / driver module 2.8A / 28.5V
<b>TMCM-111-42-CABLE</b>	Cable loom for TMCM-111-42 + motor conn.
<b>OPTIONS</b>	
<b>485</b>	RS-232, IIC and RS-485 interface
<b>CAN</b>	RS-232, IIC and CAN interface