10 mm

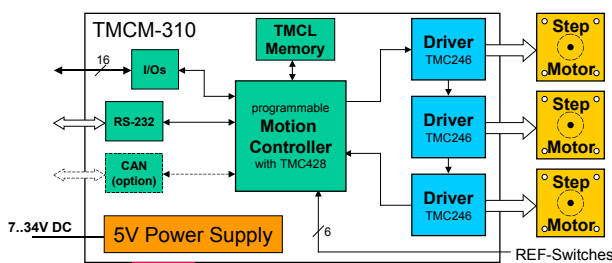# TMCM-310

3-Axis
Controller / Driver
1.1A / 34V

INFO The TMCM-310 is a triple axis 2-phase stepper motor controller and driver module. It provides a complete single board motion control solution at low cost. Using the integrated additional I/Os it even can do complete system control applications. The motors and switches can be connected easily with screw terminals. The connection of the multi purpose I/Os can be done via a dual-in-line pin connector. The TMCM-310 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 of motion control applications is guaranteed. The TMCM-310 can be controlled via the RS-232 or the optional CAN 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 operation. 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.

MAIN CHARACTERISTICS

ELECTRICAL DATA
· up to 1.1A coil current RMS (1.5A peak)
· 8V to 34V supply voltage

SUPPORTED MOTORS
· two-phase bipolar motors with 0.3A to 1.1A coil current

INTERFACE
· RS-232 and optional CAN 2.0b host interface
· inputs for reference and stop switches
· general purpose analog and digital I/Os

FEATURES
· up to 16 times microstepping
· memory for 2048 TMCL commands
· automatic ramp generation in hardware
· on the fly alteration of motion parameters (e.g. position, velocity, acceleration)
· stallGuard™ feature for sensorless stall detection
· full step frequencies up to 20kHz
· dynamic current control
· TRINAMIC driver technology: no heatsink required

SOFTWARE
· stand-alone operation using TMCL or remote controlled operation
· PC-based application development software TMCL-IDE included

OTHER
· pluggable / screw terminal connectors
· RoHS compliant
· size: 160 x 100 mm²

ORDER CODE	DESCRIPTION
TMCM-310/SG	3-axis controller / driver module 1.1A / 34V with stallGuard™
TMCM-310/SG-CAN	3-axis controller / driver module 1.1A / 34V with stallGuard™ and CAN