

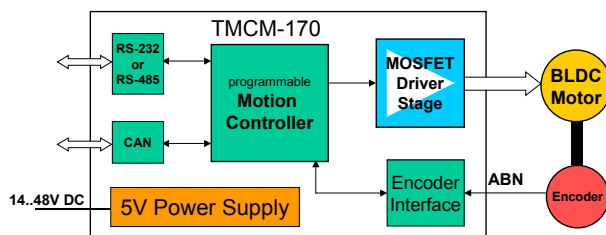
# TMCM-170

**1-Axis Motor Mounted  
BLDC Servo  
Controller / Driver  
with Encoder Inf.  
10A / 48V**

**INFO** The TCMC-170 is a controller / driver module for high performance servo drives based on brushless DC motors. It gives a high resolution like a stepper motor coupled with the high dynamic, high velocity and high reliability of a BLDC drive. A built-in ramp generator allows parameterized smooth positioning, with an external switch in order to provide for an absolute position reference. Its small form factor allows direct mounting on or into a motor-encoder assembly. The TCMC-170 integrates a position regulator and a ramp generator, to allow for velocity modes. The module can be remote controlled via an RS-232, RS-485 or via a CAN interface (ordering option). The TCMC-170 fits perfectly to the QBL5704 BLDC motors.

MAIN CHARACTERISTICS

- ELECTRICAL DATA**
  - up to 10A coil current (contact to cooling plane might be required using gap pad)
  - 12V to 48V motor supply voltage
- SUPPORTED MOTORS**
  - three phase BLDC motors from a few watts up to 500W, optional hall sensors
  - two or three channel encoder attached to mechanical axis min 256 steps resol.
  - velocity up to 100,000 rpm (el. field)
- INTERFACE**
  - CAN and RS-232 or CAN and RS-485
  - digital input for absolute pos. reference
- FEATURES**
  - servo drive allows ultra precise and fastpositioning
  - automatic positioning ramp generation with all parameters changable on-the-fly
  - different start-up modes for commutation
  - 1024 entry 10 bit motor sine commutation table
  - high efficiency, low power dissipation
  - integrated protection: reverse polarity, overload / overtemperature
- SOFTWARE**
  - stand alone operation (analog control or TMCL program) or remote controlled operation
  - PC-based demonstration software allows setting of all parameters
- OTHER**
  - pluggable connectors for interface
  - RoHS compliant
  - diameter: 61 mm (two stacked PCBs)



ORDER CODE	DESCRIPTION
<b>TMCM-170 (-option)</b>	1-axis BLDC servo controller / driver module 10A / 48V
<b>TMCM-170-CABLE</b>	Cable loom for TMCM-170
<b>Related products:</b>	QMot QBL 5704
OPTIONS	
<b>232</b>	RS232 and CAN interface
<b>485</b>	RS485 and CAN interface