



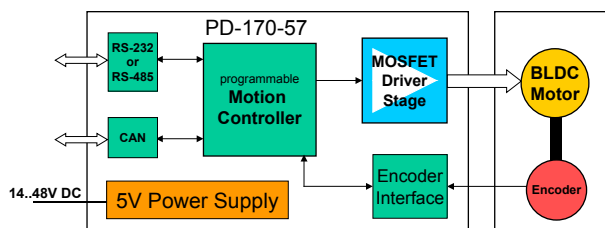
# PD-170-57

**57mm diameter  
BLDC Encoder Motor with  
Controller / Driver  
and Serial Interface**

**INFO** The PD-170-57 is a full mechatronic solution including a 57 mm brushless DC motor. It combines a convenient servo controller electronic (TMC170) and an optical encoder with a range of different motor types. The PD-170-57 offers two motor torque options and can be controlled via RS232, RS485 or CAN interface. The power supply can be connected via screw connectors and the interface and the multi-purpose I/Os can be connected via high density JST connectors. This PANdrive combines the high resolution commonly known from stepper motors with the high dynamic, high velocity and high reliability of a BLDC drive. It integrates a position regulator and a ramp generator. The ramp generators supports parameterized smooth positioning also with an external switch in order to support an absolute position reference.

**MAIN CHARACTERISTICS**

- ELECTRICAL DATA**
  - 12V to 48V supply voltage
  - up to 10A coil current
- MOTOR DATA**
  - total length: 144 mm / 156 mm
  - rated torque: 0.32 / 0.42 Nm
  - number of poles: 4
  - please also refer to the motor datasheet
- INTERFACE**
  - RS-232, RS-485 or CAN 2.0b host interface
- FEATURES**
  - servo drive allows ultra precise and fast positioning
  - automatic positioning ramp generation with all parameters changeable on-the-fly
  - different start up-modes for commutation and initialization
  - high efficiency, low power dissipation electronics
  - integrated protection: reverse polarity, overload / overtemperature
  - 3 channel encoder with 500 CPR giving a resolution of 2000 positions per revolution
- 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



ORDER CODE	DESCRIPTION
<b>PD4-170-57-E (-option)</b>	BLDC servo module with motor QBL5704-94-04-032
<b>PD5-170-57-E (-option)</b>	BLDC servo module with motor QBL5704-116-04-042
<b>OPTIONS</b>	
<b>232</b>	RS-232 and CAN interface
<b>485</b>	RS-485 and CAN interface