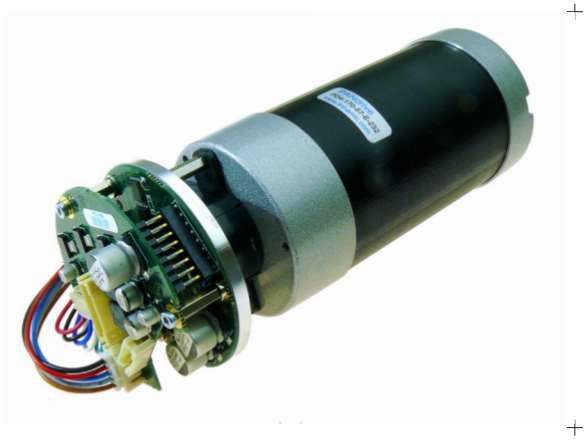
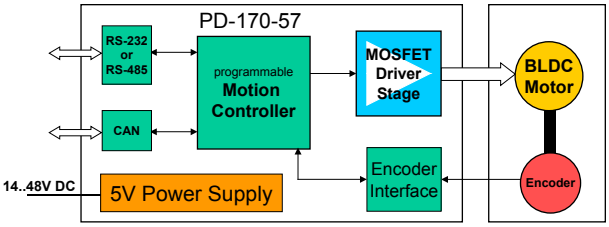


PD-170-57

**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 (TMCM-170) 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 demostration software allows setting of all parameters

OTHER
- Pluggable connectors for interface
- RoHS compliant

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