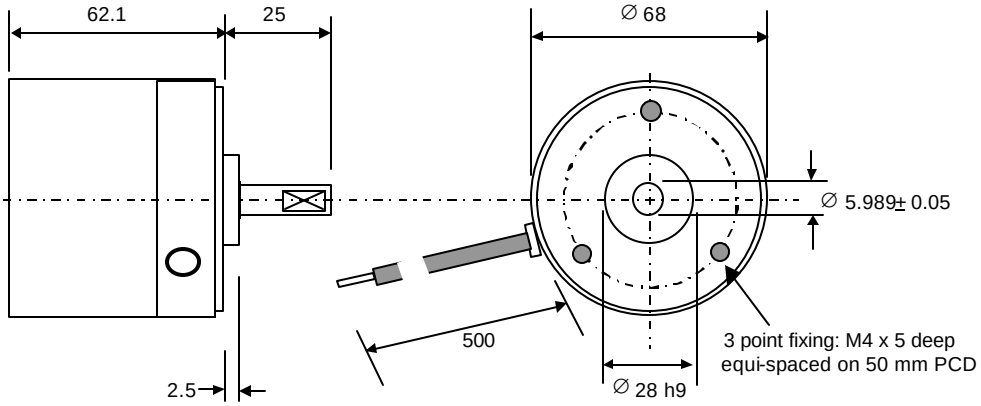
Brushless motor with integrated electronics BLDC 58

Description

The BLDC 58 is a variable speed 24 Vdc brushless motor with integrated drive electronics providing up to 50 watts continuous output power and a variable speed proportional to a 0-5 V control signal. The unit provides a compact solution to a variety of light industrial applications such as conveyor drives, paper feed and pump drives. Scientific applications include stirring equipment, peristaltic pumps, mixing machines, as well as any variable speed application that requires long maintenance free life and operating speeds from 100 to 3000 rpm. The motor's design incorporates an external rotor and magnet system which provides particularly smooth running, high grade bearings and drive electronics, all of which are housed in an enclosure suitable for use up to IP55 operating conditions. The inclusion of the drive electronics within the motor greatly simplifies the use of the motor as well as reducing overall system cost.

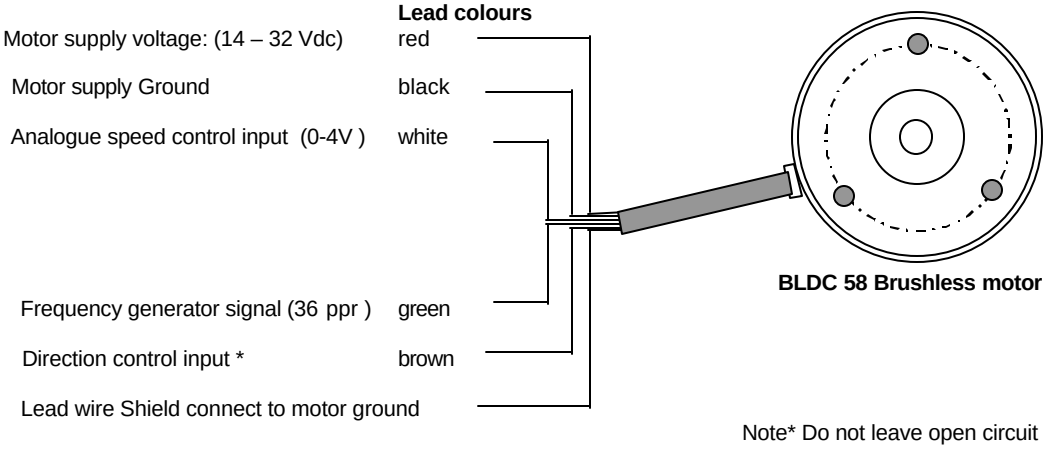
Dimensions: mm



Specification

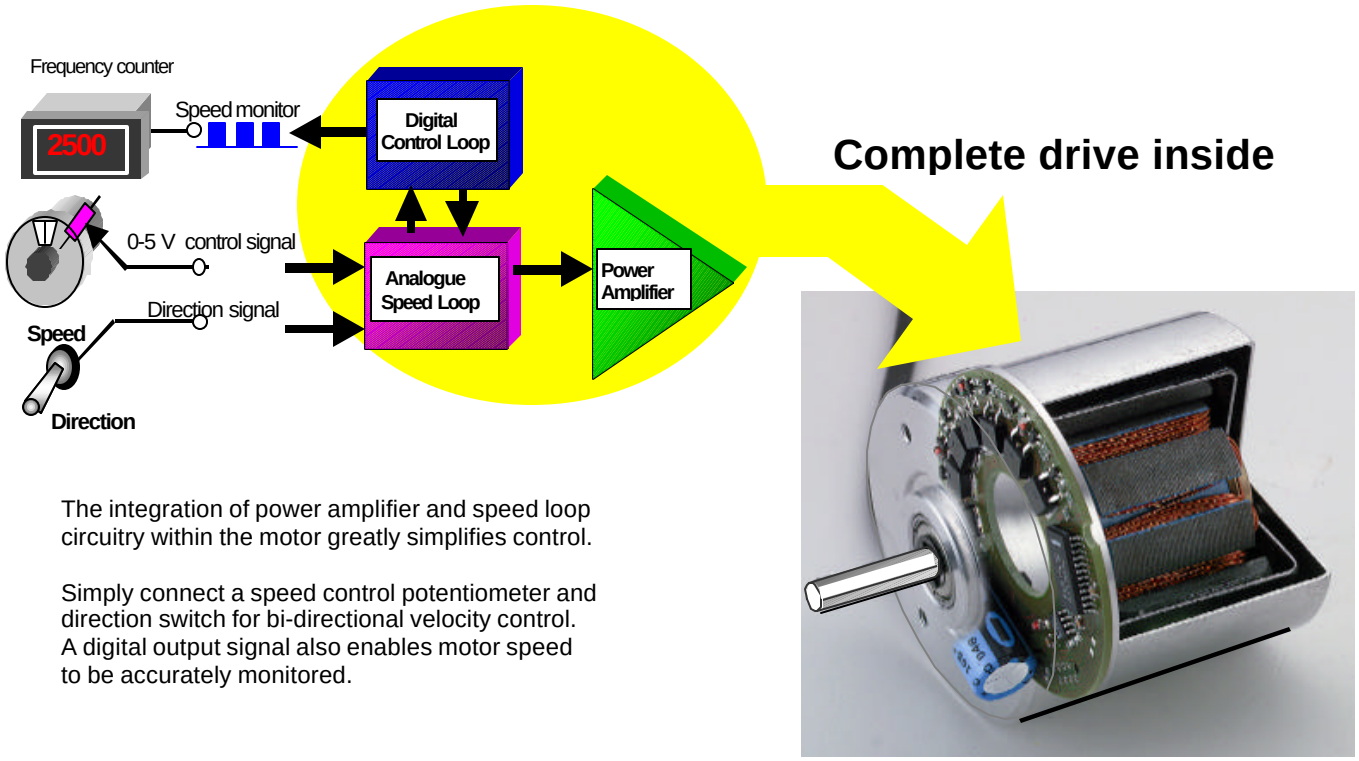
Order Code		BLDC58-35L	BLDC58-50L
Continuous output power	Watts	35	50
Maximum speed	rpm	3,650	3,650
Minimum regulated speed	rpm	≤ 100	≤ 100
Maximum speed @ rated torque	rpm	3,000	3,000
Rated Torque	Nm	0.11	0.17
Rotor inertia	$Kgcm^2$	1.2	1.2
Motor Supply voltage	Vdc	24	24
Motor supply current	Amps	1.9	2.9
Analogue speed control signal	V/1000 rpm	1.0	1.0
Alternative digital speed control signal	kHz	1 – 14.5	1 – 14.5
Digital output speed monitor	ppr	36	36
Internal Over-temperature protection		standard	standard
Bearing type		Ball	Ball

Connections:



Note* Do not leave open circuit

BLDC 58: Integrated electronics for complete drive solution



The integration of power amplifier and speed loop circuitry within the motor greatly simplifies control.

Simply connect a speed control potentiometer and direction switch for bi-directional velocity control. A digital output signal also enables motor speed to be accurately monitored.

BLDC58 Typical connections for simple speed control