

Micro-size Digital Brushed DC Servo Drive **DCS303**

Features:

- * Position control mode with opto-isolated pulse and direction inputs
- * PC-based and handheld tuning tools available
- * Input voltage: 18 VDC to 30 VDC
- * Continuous current: 3 A , Peak current:15A ,
- * Powers 5 W to 90W brushed DC servo motors.
- * Adjustable position following error lock range
- * Single-ended encoder feedback
- * Micro-size, surface-mount technology



Model	Driving Motors
DCS303	18 VDC to 30 VDC brushed DC servo motors, power up to 90W

Introduction

The DCS303 is a micro-size brushed DC servo drive delivering power up to 90 W. It is ideal for low power applications with limited mounting space. Features include high reliability, easy-to-use, and micro-size.

Applications

Suitable for a wide range of equipment and instruments such as inkjet printers, solvent printers, cutting plotters, medical equipment, small automation machines, and etc. Particularly suited to applications requiring minimal vibration, low noise, high speed and high precision.

Connectors

Power and Motor Connector

Pin.	Name	Description	I/O	Pin.	Name	Description	I/O
1	Motor+	Motor positive connection	O	3	+Vdc	DC power Input (18 to 30 VDC)	I
2	Motor-	Motor negative connection	O	4	GND	Power ground	GND

Encoder Connector

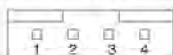
Pin.	Name	Description	I/O	Pin.	Name	Description	I/O
1	EB	Encoder Channel B Input	I	3	VCC	+5V @ 50 mA max.	O
2	EA	Encoder Channel A Input	I	4	EGND	+5V power ground	-

Command and I/O Signal Connector

Pin.	Name	Description	I/O	Pin.	Name	Description	I/O
1	PUL	Pulse signal input	I	4	EN	Enable/Disable signal input	I
2	DIR	Direction control signal input	I	5	ERR	Alarm signal output (OC output)	O
3	OPTO	Opto-coupler power input (Normal: +5V)	I	6	EGD	Opto-coupler power ground	-

RS232 Communication Interface

Pin.	Name	Description	I/O	Pin.	Name	Description	I/O
1	+5V	Power for STU-DCS	O	3	GND	Signal ground	GND
2	TxD	RS232: Transmit	O	4	RxD	RS232: Receive	I

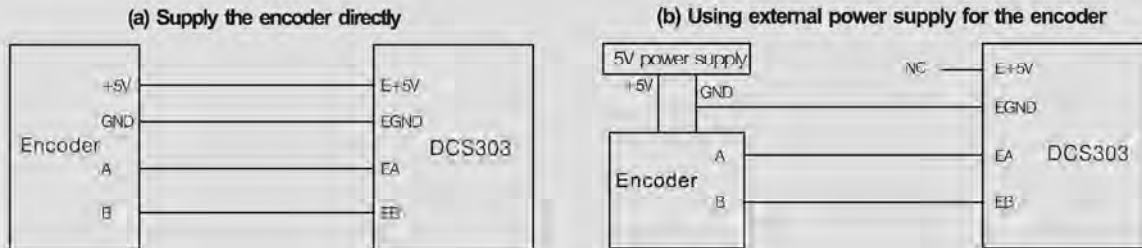


RS232 Pin assignment

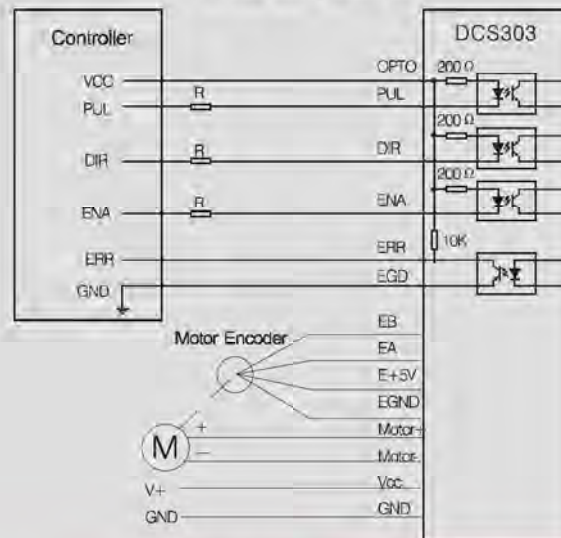
Typical Connections

Encoder Connections

The DCS303 supports an encoder with single-ended A, B signals. If the encoder drains less than 50mA, the DCS303 can supply the encoder directly, and connect it as Figure (a). If the encoder drains more than 50mA, use an external DC supply and connect it as Figure (b). Note that twisted-pair shielded cabling provides the best immunity in electrically noisy environments.

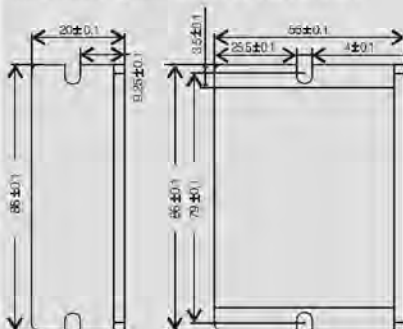


(c) Full wiring example



Mechanical Specifications (Units: mm 1 inch = 25.4 mm)

Mechanical specifications of the DCS303



DCS303: 86x55x20mm