Connecting AMS AS5048A/AS5048B encoders to Servosila SC-25 Brushless Motor Controller
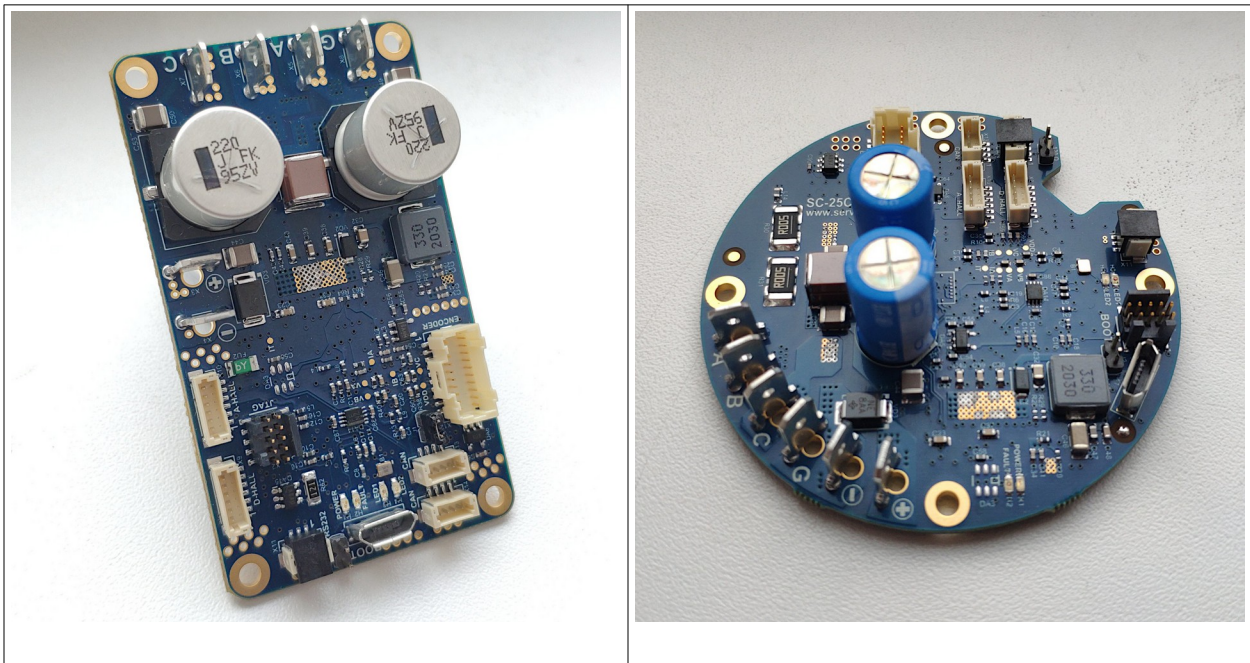
Technical Note

Revision A

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Introduction

The AMS AS5048A or AS5048B are absolute position encodes with a 14-bit high-resolution output.

PWM output

This note is written in regards to PWM output interface of the encoders. When making a cable, refer to the datasheets of both devices to match PWM pins of the corresponding connectors.

PWM configuration settings

The following configuration settings of the PWM interface of Servosila SC-25 controllers have been found to work with the AMS AS5048A encoders.

Servo Encoder	4	-		Power Cycle
Gearbox: Reduction Ratio	1	-		
> Control Laws				
> Features				
> Work Zone				
> Brake				
> Fault Management				
> Peripheral: Hall Sensors				
> Peripheral: Quadrature Encoder				
> Peripheral: SSI/BISS-C Encoder				
> Peripheral: SPI Encoder				
∨ Peripheral: PWM Encoder				
counts per revolution	4096	counts		
encoder bias vs. electrical position	0	counts		
inverted installation	0	0 or 1		
pulse period	4119	sec or clocks		
max pulse width (angle=360 deg)	4095	sec or clocks		
min pulse width (angle=0 deg)	16	sec or clocks		
pulse exit width	8	sec or clocks		
polarity inversion	1	0 or 1		Power Cycle
> Peripheral: Gate Driver				
> Networking				
> Product Activation				

Servo drives designed around SERVOSILA SC-25C brushless motor controllers

YouTube: http://www.youtube.com/user/servosila

www.servosila.com/en/motion-control