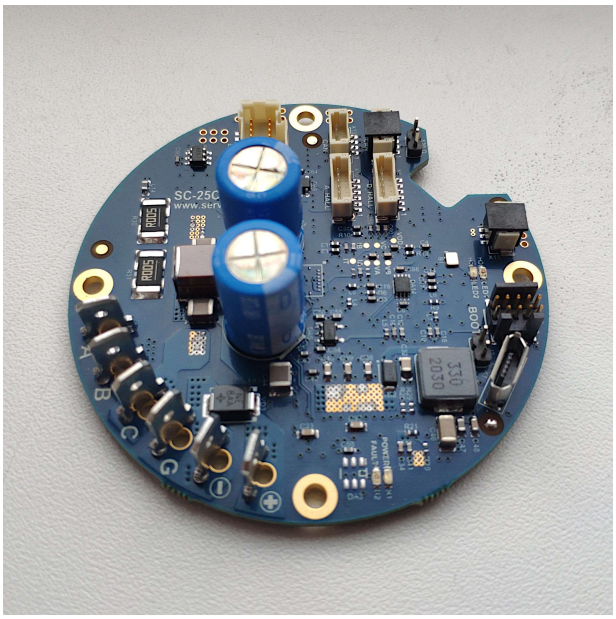
Connecting Netzer VLP Encoders with BISS-C interface to Servosila SC-series Servo Drives

Technical Note

Revision A



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Overview

This technical note is written in regards to a Netzer VLP capacitive 20-bit absolute rotary encoder with a BISS-C interface.

RELEVANT PART NUMBER:
Netzer VLP-100-II-S6

The encoder's output rate has been found sufficient to be used for servo control, direct drive control, torque control and field-oriented control (brushless motor commutation) purposes. The encoder was successfully tested in those test scenarios.

BISS-C interface: settings

The following configuration settings of the SSI/BISS-C interface of Servosila SC-series Servo Drives have been found to work well with the given model of Netzer VLP absolute encoder:

Motor Encoder (Direct Drive)	2	-	Power Cycle
Servo Encoder (Load Side)	2	-	Power Cycle

Encoder Peripherals			
Peripheral: SSI/BISS-C Encoder			
counts per revolution	1048576	counts	Power Cycle
encoder bias vs. electrical position	0	counts	
inverted installation	0	0 or 1	
request frequency: divider	2	-	Power Cycle
clock frequency: divider	64	-	Power Cycle
clock polarity	1	0 or 1	Power Cycle
clock phase	1	0 or 1	Power Cycle
total number of bits in packet	33	1-64	Power Cycle
POSITION field (count): start bit	5	-	
POSITION field (count): length	20	-	
POSITION field (count): bit inversion	0	0 or 1	
MULTI-TURN field (count): enable	0	0 or 1	
MULTI-TURN field (count): start bit	39	-	
MULTI-TURN field (count): length	6	-	
MULTI-TURN field (count): bit inversion	0	0 or 1	
MULTI-TURN Count Limit (count)	256	turns	
ERROR bit: enable	1	0 or 1	
ERROR bit: bit position	25	-	
ERROR bit: bit inversion	1	0 or 1	
WARN bit: enable	1	0 or 1	
WARN bit: bit position	26	-	
WARN bit: bit inversion	1	0 or 1	
CRC field: enable	1	0 or 1	
CRC field: start bit	27	-	
CRC field: length	6	-	
CRC field: bit inversion	1	0 or 1	
CRC input: start bit	5	-	
CRC input: length	22	-	
CRC input: bit inversion	0	0 or 1	

Servo Actuators designed around Servosila SC-series Servo Drives

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

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