JX2-CNT1

Version Update

from V3.01 to V3.02

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1 Introduction

1.1 Overview of Version Updates

Overview of Version Updates			
Version	**Description**	**Added**	**Fixed**
V3.02	Reversal of counting direction of the SSI encoder	✓	
	Master/slave operation with JM-2xx	✓	
	Frequency measurement using SSI encoders	✓	
V3.01	Frequency measurement	✓	
	Register 3xx3 "Status / controlling the dual-channel counter"	✓	
	Reading in SSI encoder data		✓
V2.11	Frequency measurement	✓	
	Register 3xx8 "Filter frequency"	✓	
	Master/Slave Operation	✓	
	Register 3xx3 "Status of the dual-channel counter"	✓	

1.2 System Requirements

Software Versions of Controllers and Submodule JX6-SB(-I)	
Controller	**Minimum Software Version**
JC-241, JC-243, JC-246, NANO-B, NANO-C, NANO-D	All versions
JX6-SB(-I) (for JC-647, DELTA, JC-800)	All versions

2 Enhancements

2.1 Reversal of counting direction of the SSI encoder

In register 3xx3 "Status / Controller" the counting direction of the SSI encoder position can be reversed. To this end, bit 9 must be set or reset.

2.2 Master/slave operation with JM-2xx

Master/slave operation with JM-2xx has been optimized for incremental encoder, as well as for SSI encoder:

- Synchronization has been optimized
- Synchronous acquisition of the respective encoder position has been optimized.

In previous versions extremely high data traffic on the system bus could produce audible jitter in synchronous position transfer between JX2-CNT1 and JM-2xx slave modules. This bug is fixed in this version.

2.3 Frequency measurement using SSI encoders

In previous versions evaluation errors occured in frequency measurements using SSI encoders which had a word width of less than 24 bits. On encoder overflow the frequency measurment returned an incorrect value. In addition, the combination of very small word width of the encoder, for example 10 or 12 bits, and hig speed resulted in incorrect frequency calculations.

Starting from this version, any SSI encoder with a word width of 10-24 bits can be used for frequency calculations.

3   Corrections

None