



## JXM-IO-E30

Version Update from V2.07.0.00 to V2.09.0.00

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## 1 Changes to 2.09.0.00

Overview Version 2.09.0.00

The following table gives an overview of newly added or enhanced features and fixed software bugs:

Funktion	Neu	Erweitert	Korrigiert
IDX 0x210C0x2119: A bug when resetting set points of outputs is now fixed. When changing to state OPERATIONAL, set points are now reset to 0 in all cases.			<b>√</b>
IDX 0x210C0x2119: MIN_CURRENT (SubIndex 64, uint16, r/w) and OpenLoadDetection (automatically executed at system start) can now be turned off.	✓	<b>√</b>	
This is controlled via the new SubIndex 65, OPENCIRCUIT_DETECTION.			
OPENCIRCUIT_DETECTION accepts the values 0=all off, 1=OpenLoadDetection is executed once during startup, 2=OpenLoadDetection and MIN_CURRENT are both active.			

## 2 Changes to 2.07.0.00

Overview Version 2.07.0.00 The following table gives an overview of newly added or enhanced features and fixed software bugs:

Funktion	Neu	Erweitert	Korrigiert
IDX 0x210C0x2119: Set point values for Output ports (SubIndexe 30, 31 und 32, uint8, uint16 und uint16, r/w) now can only be set in state OPERATIONAL.	✓		
In PreOPERATIONAL and when entering state OPERATIONAL set point values will be set to 0 always.			
This way, when entering state OPERATIONAL, sudden, uncontrolled actions of connected actors are prevented.			

## 3 Changes to 2.06.0.00

Overview Version 2.06.0.00 The following table gives an overview of newly added or enhanced features and fixed software bugs:

Funktion	Neu	Erweitert	Korrigiert
IDX 0x210C0x2119: Output ports provide a cable break detection (SubIndex 64, uint16, r/w). Minimal current on default is 200mA for HS3CC and HS3C, else it's 500mA. When falling below the minimal current, an EMCY-message for the repsective port is sent. Also the port state will read OPEN_CIRCUIT. Only available in state OPERATIONAL.			
IDX 0x2000: Reduction of bus load, when diag indices 1 and/or 12 are beeing included in an TPDO.		✓	

## 4 Changes to 2.04.0.00

Overview Version 2.04.0.00 The following table gives an overview of newly added or enhanced features and fixed software bugs:

Function	New	Enhanced	Fixed
If an output is configured to DI_NPN or DI_PNP, a pull up resistor is switched on or off for the corresponding group. Now this only depends on the latest configured interface.			✓
IDX 0x1010: Changes of the HeartbeatTime will now be saved.		✓	
IDX 0x6000: Display of digital values was broken in revision 2.03.0.00. This has been fixed.			✓
IDX 0x4556: When saving unchanged system parameter, the CRC was altered. This has been fixed.			✓
CanOpen stack: has been enhanced. The DLC of PDOs now no more exceeds the number of bytes mapped.		✓	
IDX 0x210C0x210F: If Setpoint O_HCURRENT was set to 0, the ouput didn't reach 0A. Instead the output stayed within the tolerance level.			<b>√</b>
This has been fixed.			
Output ports are now only active in state OPERATIONAL.	✓		
Analogue input values now have noise cancelling. The default value is 1, meaning, no noise cancellation. You can configure this in subindex 63.	✓		

## 5 Changes to 2.03.0.00

Overview Version 2.03.0.00

The following table gives an overview of newly added or enhanced features and fixed software bugs:

Function	New	Enhanced	Fixed
fixed: only on hardware revision 01.00 devices: current regulation function on PWMi_H3 was not functional. This software version does not affect devices with hardware revision 02.00 or above			<b>√</b>

# 6 Changes to 2.02.0.00

Overview Version 2.02.0.00 The following table gives an overview of newly added or enhanced features and fixed software bugs:

Function	New	Enhanced	Fixed
fixed: interrupting OS update resulted in an unusable device, that could only be repaired by the manufacturer.			✓

## 7 Changes to 2.00.0.00

Overview Version 2.00.0.00

The following table gives an overview of newly added or enhanced features and fixed software bugs:

Function	New	Enhanced	Fixed
implemented: Al_x analog input may be used as digital input by assigning interface type Dl_PNP	✓		
implemented: Save / restore of configuration data using IDX 0x1010 / 0x1011	✓		
implemented: DI_P_1 useable as additional NPN input by assigning interface type DI_PNP (requires HW Rev. 02.00) Interface type FI_NPN may now be assigned too	✓		
implemented: reading of VBAT_ECU using diag object 0x2000/13 fixed: NodeID now is calculated based on VBAT_ECU instead of VBAT_PWR (requires HW Rev. 02.00)	<b>√</b>		✓
implemented: bitwise PDO mapping	✓		
fixed: Firmware updates may now be done using other baud rates than 250Kbit			✓
fixed: erroneous activation of PWMi_HS_3 after reset in firmware as well as in bootloader			✓
fixed: reading of status of SENSOR_SUPPLY was not implemented for outputs configured as digital inputs (DI_PNP)			✓
implemented: changed to newer version of CanOpenStack, improves over all stability	✓		
implemented: configurable Base/NodeID in IDX 0x4556 ( System parameter )	✓		
improved speed of current control by changes in default values			✓
implemented: P parameter of current control now independent of battery voltage	✓		
fixed: freeze (buffer overflow) due to high load of PDO-TX			✓
fixed: reading of SPWR_3 voltage returned SPWR_2 voltage in diag object ( IDX 0x02000 )			✓
fixed: parameter FILTER_DEEP didn't work for all outputs of DO_H3 and PWM_H7			✓
implemented: generation of errors OVERCURRENT and OVERVOLTAGE in analog inputs AI			✓
implemented: full functionality in regard of operating manual Version 1.20.2 ( issued 2018-10-09 )			
fixed: diag objects may now be mapped and transmitted via PDO			✓



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