



JXM-IO-E30

Version Update from V2.16.0.00 to V2.17.0.00

Revision 1.11 March 2021 / Printed in Germany

This document has been compiled by Jetter AG with due diligence, and based on the known state of the art.

In the case of modifications, further developments or enhancements to products shipped in the past, a revised document will be supplied only if required by law, or deemed appropriate by Jetter AG. Jetter AG shall neither be liable nor responsible for any errors in form or content, lacks in updating and possibly resulting damages or disadvantages.

The logos, brand names, and product names mentioned in this document are trademarks of Jetter AG, of associated companies or other title owners and must not be used without consent of the respective title owner.

Table of contents

1	Changes to 2.17.0.00	4
2	Changes to 2.16.0.00	5
3	Changes to 2.15.0.00	6
4	Changes to 2.13.0.00	7
5	Changes to 2.12.0.00	8
6	Changes to 2.11.0.00	9
7	Changes to 2.09.0.00	11
8	Changes to 2.07.0.00	12
9	Changes to 2.06.0.00	13
10	Changes to 2.04.0.00	14
11	Changes to 2.03.0.00	15
12	Changes to 2.02.0.00	16
13	Changes to 2.00.0.00	17

1 Changes to 2.17.0.00

Overview Version 2.17.0.00

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

Funktion	New	Enhanced	Fixed
The green LED now also works on a JXM-IO-EX30.			✓

2 Changes to 2.16.0.00

Overview Version 2.16.0.00 The following table gives an overview of newly added or enhanced features and fixed software bugs:

Funktion	New	Enhanced	Fixed
Fix direction of I_COUNTER and I_DIRECTION when digital inpus are configured as rotary encoder and RESOLUTION is set to 2.			✓
Fix I_PERIODIC_TIME previously was updated after GATE_TIME. Now the calculationis triggered, when a flank is counted during frequency measuring.			✓
Fix the maximum value of DITHER_FREQUENCY to 8000.			✓
Fix the update time of TPDO4. Before, when four TPDO were configured, TPDO4 experienced delays up to 2s.			✓

3 Changes to 2.15.0.00

Overview Version 2.15.0.00 The following table gives an overview of newly added or enhanced features and fixed software bugs:

Funktion	New	Enhanced	Fixed
Fix broken os update when NodelD is changed by Config pin and or sytem parameter.			✓
Fix CAN settings if corrupted in EEPROM.			✓
Fix minimal accepted value of GATE_TIME from 1000ms to 10ms.			✓

4 Changes to 2.13.0.00

Overview Version 2.13.0.00

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

Funktion	New	Enhanced	Fixed
The NodeID of variants JXM-IO-EX30 and JXM-IO-EW30 does no longer			√
depend on whether or not VBAT_PWR is connected.			,

5 Changes to 2.12.0.00

Overview Version 2.12.0.00

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

Funktion	New	Enhanced	Fixed
IDX 0x21080x210B: fix immediate emergency message when configuring DI as frequency input. Now emergency timeout message will only be sent after the timeout_time has been exceeded.			✓
Also, change maximum timeout_time from 1000ms to 2^16ms.			
IDX 0x21080x210B: Use of AB track sensor.	✓		
(requires the combination of two ports using one Interface)			
New subindexes: I_DIRECTION (22), ENC_PNP (26) and RESOLUTION (68). Uses subindexes: I_COUNTER (17) and TIMEOUT_TIME (59).			
Subindex 26: Interface.			
Subindex 17: Input value tick count (overflow at 0 -1 and UINT32_MAX +1).			
Subindex 22: Input value direction (0=stop, 1=forward, 2=backward).			
Subindex 68: Parameter resolution in ppr (0=1/4, 1=1/2, 2=full)			
Subindex 59: Parameter period after wich the direction signals stop.			
IDX 1016: Heartbeat monitoring may trigger switch to NMT_STOPPED when timeout occurred.	√		
Subindex 0 number of monitorable NodelD's. (RO)			
Subindex 14 set the NodeID to be monitored as well as the timeout time.			
The NodeID of variants JXM-IO-EX30 and JXM-IO-EW30 does no longer depend on whether or not VBAT_PWR is connected.			✓

6 Changes to 2.11.0.00

Overview Version 2.11.0.00

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

Funktion	New	Enhanced	Fixed
IDX 0x210C0x2119: Additional feature. When set to HSxD, the functionality can be read back in I_DIGITAL.		✓	
IDX 0x210C0x2119: change default of OPENCIRCUIT_DETECTION from 2=PERMANENT to 1=STARTUP. Open cuircuit will now only be detecten during startup.	✓		
IDX 0x210C0x2115: Fixed PWM frequencey from minimal 100Hz to minimal 5 Hz.			✓
IDX 0x21000x2107: fix faulty check when voltage EMCY-Messsages are re/set.			✓
IDX all: added internal Watchdog to reboot system in case main thread execution is halted/blocked.	✓		
Fixed bug in TPDOs where the configured INHIBIT_TIME for certain values was additional 10ms longer.			✓
IDX 0x2000, SubIDX 10 to 12: Added 100mV Hysteresis. When SPWR is monitored by TPDO this prevents the TPDO form constantly triggering.	✓		
Pdated CAN driver	✓		

7 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	New	Enhanced	Fixed
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.			✓
IDX 0x210C0x2119: MIN_CURRENT (SubIndex 64, uint16, r/w) and OpenLoadDetection (automatically executed at system start) can now be turned off.	✓	√	
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.			

8 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	New	Enhanced	Fixed
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.			

9 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	New	Enhanced	Fixed
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.		✓	

10 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. 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.	✓		

11 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			✓

12 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.			✓

13 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 DI_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)	✓		✓
implemented: bitwise PDO mapping	\checkmark		
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 Al			✓
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			✓



Jetter AG Graeterstrasse 2 71642 Ludwigsburg | Germany

Phone +49 7141 2550-0 Fax +49 7141 2550-425 info@jetter.de www.jetter.de

We automate your success.