Release Notes CMMT-AS-MP

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2 Fixed Bugs in Version 36.10.4

- In operation with Profidrive AC4 and DSC, there may be a delayed "Done" signal in the technology object positioning axis of the PLC at certain bus cycle times. Positioning with Tel105 in AC4 with DSC generates a high following error The timing and controller behavior for DSC operation have been optimized

3 New Features in Version 36.10.3

- Extended encoder emulation resolution [X10]
  With Px.102730, the extended encoder emulation output can be activated. Px.102728 specifies the number of pulses, which can be set in the range of 1 to 262144.

- EMMB motors with built-in multiturn encoders can be used as singleturn encoders without an external battery if the parameter Px.103805 is not set to active.

- Extended capabilities for naming firmware and parameter files for FoE. See "EtherCAT › Mailbox Communication › File Access over EtherCAT (FoE)".

- The hash code of the active parameter set can be read with parameter Px.102764.

- The behavior of dynamic torque boosting can now be defined and set via parameter Px.102223 See "Control › Limitations › Torque limitation" for more details.

- For position and speed commands, jerk can additionally be limited in the Application Limit Manager. The limits can be set using parameters Px.102777 (lower limit) and Px.102778 (upper limit).

- Error reaction for mains supply overvoltage diagnosis (Dx 02 | 03 | 00039) selectable (Warning or Stop Cat. 1).

4 Fixed Bugs in Version 36.10.3

- Vertical axes could accelerate in the wrong direction due to an unfavorably configured offset (Px.969).
  A setpoint monitoring prevents movement in the wrong direction.

- In homing methods 23/27 with a very short configured search limit, an error is reported too early regarding the search limit. In this case, the axis must already be on the reference switch at the start of the homing method.
  In this case, the search limit is deactivated, preventing any error message.

- The text for the diagnosis Dx 13 | 01 | 00214 (error acknowledgment) was not displayed in the message directory.

- No physical zero pulse was evaluated for SIN/COS encoders.
  With Px.102795, it can now be set whether the zero pulse should still be generated internally or if the physical pulse from the encoder should be used.

- Changes to the selected holding brake (Px.29) could lead to unexpected behavior of the brakes.
  Changes to this parameter must now be activated through a reinit.

- Very short STO pulses lead to undefined states in the CiA402 state machine.
  Safety events SS0/SS1/SS2 are processed correctly in the CiA402 state machine.

- The timestamp in the EtherCAT diagnosis log or in parameter Px.43550 is not updated in free run.
  The timestamp is now updated every 200 ms in free run.

- CIA402 referencing variant 37 - current position only possible in Operation Enabled.
  Only referencing variant 37 is always initiated as soon as requested - standard CIA402.

- CIA402 torques are only specified on the drive side, which is not CIA402 compliant.
  Switchable via parameter P0.1128062.0.0 to motor side; the default setting remains non-compliant with CIA402.

- Firmware update is too time-consuming.
  Firmware size has been reduced through compression to enable faster updates.

- The compensation time (Px.113036) for the digital input for position detection can only take positive values.
  The parameter can now also accept negative values, allowing positions to be approximated that are temporally before the input signal.

- In the position detection function in modulo mode, the offset parameters Px.113024 and Px.113025 had no effect.

- Parameter Px.1209 was mapped in the wrong address range.
  Object mapping was changed from 2288:01 to 217F:0B.

- The selection of the module mode via parameter Px.113100 was not stored persistently.

- Using CiA402 unit increments can lead to noise in the following error when connecting to the FAS.

- Multiple Modbus-TCP connections led to unexpected device errors.

- A speed override of 0 causes an error message.
  With a speed override of 0, the axis stops without an error message and remains in the current motion command.

- In EtherNet/IP, the input-only connection is not possible with EPD process data.

- Error in drive release in CIA402 operating mode CSV with active CIA unit increments.
  Incorrect internal position setpoints for non-trivial decimal numbers for the active feedforward constant in the unit m/s/s² have been corrected.

- In the controller release "I/O or Fieldbus," the drive could not be switched on via the CTRL-EN input without fieldbus release.
  See "Motion Control › Modes of Operations › Switch-on/off behaviour and controller enable › Function".

- In "leader/follower" mode, the follower axis briefly moves against the direction of the leader axis during synchronization.
  The follower axis moves directly in the same direction as the leader axis.

- A valid motor swap now triggers an additional reinitialization request.

- For third-party motors with EnDat 2.2 multiturn encoders and a resolution of >65535 (e.g., EBI 1335), a position jump may occur at system startup.

- During the brake test, the lift monitoring was not activated in all phases, which could lead to undesired axis movement.
  The lift limit monitoring is active during all phases of the brake test.

- For BiSS rotary encoders, saving the zero point shift could sporadically lead to a defective motor.

- In leader/follower operation, unexpected position changes may occur in the follower axis, if it is

- operational before the leader's initialization phase.

- Unexpected software limit error received without movement.

5 New Features in Version 35.9.2 (V352)

- Firmware package files have been renamed, and the versioning format has been changed:
  CMMT-MP-V34.0.13.18_Release.pck -› drive-hp-g1_35.9.1.pck

- Position-dependent torque control:
  It is now possible to specify a torque as a feedforward value for the control based on the position.
  More information can be found in the documentation.

- Modbus timeout can be set via FAS using parameter Px.102393.

- Support for multiple parameter sets:
  The device supports up to 4 different parameter sets, each stored in a slot. The web server can be used to set which parameter set should be active on the next restart. This allows for quick switching between different configurations.

- Extended parameterization options for Hiperface encoders:
  - Enable manual parameterization using Px.64140
  - Enter the number of Sin/Cos cycles per revolution from product information in Px.6412
  - Enter the number of singleturn resolutions per revolution in Px.6413
  - Enter the multiturn resolution per revolution in Px.6414
  - Select whether multiturn encoder is used in Px.6415
  - Select whether linear encoder is used in Px.100000

6 Fixed Bugs in Version 35.9.2 (V352)

- Direction reversal in master-slave operation is not detected.
  Changes to the direction reversal Px.1170 affect the configuration of X10.

- Gear In/Out as a slave via X10 interface can cause a software crash (status led is flickering red).

- Modbus connection is not properly closed by disconnecting and reconnecting the cable.
  Reconnection is now performed correctly.

- Drive can be released by fieldbus when control authority is set to "I/O".
  It is not possible to release the drive via fieldbus when control authority is set to "I/O".

- Digital output linkage "Bit 16 CiA402 0x60FE" and "Bit 17 CiA402 0x60FE" is not selectable for CMMT-ST.

- CiA object 0x60FE (digital outputs) is not updated.
  Parameter P1.1128054 (mapped to CiA402 object 0x60FE) is not updated when changing outputs through the motion profile or fieldbus.

- Holding brake cannot be opened via FAS while STO is active.

- Current position in module operation in the module window area remains 0.

- Referencing with EMMB-AS can be lost on device restart.

- Unexpected error message "Process data connection lost" in combination with EtherNet/IP and Modbus.
  This was reported although no control is requested via control word 1 (STW1) bit 10.

- An input offset can be used for the analog input before the deadzone using parameter Px.102673.

- Improved evaluation of stroke limits for referencing methods with automatic direction reversal.
  For all referencing methods where the search direction is reversed, for example, when reaching a stop, it is now possible to adjust the stroke limit monitoring independently of the direction.

- Warning "Incorrect IP address settings" after changing the telegram selection with EtherNet/IP.
  The IP address remains unchanged.

- With CMMT-ST-MP in combination with a motor with a holding brake, the brake is not opened by a configured digital input.
  The holding brake is opened by setting the configured input.

- PROFIdrive telegram 103 and telegram 4 cannot be used with IRT / AC4.
  Both telegrams can also be used with IRT / AC4.

- For manually configured Hiperface encoders, when the parameter Px.6412 does not correspond to a power of 2, the target position is calculated incorrectly.
  The configuration of arbitrary values in the parameter Px.6412 is supported.