

Overview over the changes and new functionality of Motion Controller V3.0 firmware revision M1 (compared to L).

Changes and fixes

No.	Affected Component	Change Description
1	EtherCAT controllers Home Offset (0x607C)	Write Access to Home Offset is functioning properly now.
2	EtherCAT controllers	In Profile poison mode (PP) an unintended positioning move could occur when doing device state machine transitions in between commanded moves. This is fixed now.

New Functions

No.	Affected Component	Description
1	All controllers in combination with a BX4 motor with sin/cos hall interface + integrated temperature sensor	The NTC sensor integrated into BX4 motors equipped with sin/cos hall sensors can be used for thermal motor protection. Setting object 2326.0B to 1 reads the temperature sensor. Object 2326.0A shows the temperature value.
2	MC5005, MC5010, MC5004 in combination with BX4 motors	Depending on their design BX4 motors show a torque ripple of up to 5%. There is a compensation function for 2232, 2250 and 3242 BX4 motors now, which is activated by setting object 0x2507.01 to 1.
3	All controllers in combination with a reference switch	A reference switch can now be assigned to an emulated digital input (using one of the analog inputs) if running out of digital inputs.