

EPOS4

Positioning Controllers Firmware Version «Readme»

Edition December 2017

It is essential that you read / understand / follow the below information!

VERSION DETAILS

Positioning Controllers	Order Number	Firmware Version		Hardware Version	Application	
		Latest Edition	First Edition		Number	Version
EPOS4 Module 24/1.5 EPOS4 Compact 24/1.5 CAN	536630 546714	0x0130	0x0110	0x6050	0x0000	0x0000
EPOS4 Module 50/5 EPOS4 Compact 50/5 CAN	534130 541718	0x0130	0x0110	0x6150	0x0000	0x0000
EPOS4 Module 50/8 EPOS4 Compact 50/8 CAN	504384 520885	0x0130	0x0100	0x6551	0x0000	0x0000
EPOS4 Module 50/15 EPOS4 Compact 50/15 CAN	504383 520886	0x0130	0x0100	0x6552	0x0000	0x0000
EPOS4 50/5	546047	0x0130	0x0120	0x6350	0x0000	0x0000



Note: The firmware of an extension is part of the above listed main firmware and cannot be downloaded as a stand-alone item. Download and installation take place via the respective positioning controller.

Extensions	Order Number	Firmware Version		Hardware Version	Application	
		Latest Edition	First Edition		Number	Version
EPOS4 EtherCAT Card	581245	0x0100	0x0100	0x5100	0x0000	0x0000

IMPORTANT INFORMATION

The functionality of an EPOS4 device is determined by its internal operating system (the so-called firmware). The firmware itself is subject to continuous development as part of an ongoing improvement process and is therefore being updated on a regular basis.

- EPOS4 devices are shipped with the latest firmware version available.
- New versions may feature additional or enhanced functionality as well as improved safety-relevant functions, which might not be fully compatible with former versions!

- You can update your device with the latest available versions of firmware and «EPOS Studio» (maxon motor's graphical user interface for EPOS positioning controllers). You may access the downloads at <http://epos.maxonmotor.com>.



Note: Before downloading a new version, you must check for its compatibility with the hardware version you are currently using! Consult maxon motor if you are in doubt.

- Earlier versions are available on request.
- The currently used versions of both firmware and hardware can be read out from the controller using the «EPOS Studio».
- To install a new firmware version, use the “Firmware Download Wizard” in «EPOS Studio».
- Be aware that you alone are responsible for using the appropriate firmware version in your present device. Consult maxon motor if you are in doubt.



Note: maxon motor ag or its representatives do not take responsibility nor obligation for any defect (such as, but not concluding; malfunction of the device and/or attached equipment, loss of production, etc.) caused by incompatibility of firmware versions and/or by mismatch of a particular firmware version with a given hardware version!

VERSION HISTORY

EPOS4_0130h_xxxxh_0000h_0000h (Release 2017-12)		
Binary Files	EPOS4 Module 24/1.5 EPOS4 Compact 24/1.5 CAN	EPOS4_0130h_6050h_0000h_0000h.bin
	EPOS4 Module 50/5 EPOS4 Compact 50/5 CAN	EPOS4_0130h_6150h_0000h_0000h.bin
	EPOS4 Module 50/8 EPOS4 Compact 50/8 CAN	EPOS4_0130h_6551h_0000h_0000h.bin
	EPOS4 Module 50/15 EPOS4 Compact 50/15 CAN	EPOS4_0130h_6552h_0000h_0000h.bin
	EPOS4 50/5	EPOS4_0130h_6350h_0000h_0000h.bin
Features	Introduction	EPOS4 EtherCAT extension
	Communication	EtherCAT communication (CoE) for EPOS4 accessories with EtherCAT extension added
	Modes of operation	Cyclic Synchronous Position (CSP) added
	Custom persistent memory	Object to store custom values added
Changes	Bugfix	Position controller: anti-windup behavior improved
	Bugfix	Analog inputs: Display of negative values corrected
	Bugfix	SSI encoder: Reading special bits fixed
	Bugfix	CAN gateway: Sporadic watchdog error fixed
	Bugfix	CAN: Automatic bit rate detection fixed
	Bugfix	Statusword: Internal limit signalization corrected
	Bugfix	CST statusword: Drive follows command signalization corrected
	Bugfix	General minor bug fixing and improvements

EPOS4_0120h_xxxxh_0000h_0000h (Release 2017-06)

Binary Files	EPOS4 Module 24/1.5 EPOS4 Compact 24/1.5 CAN	EPOS4_0120h_6050h_0000h_0000h.bin
	EPOS4 Module 50/5 EPOS4 Compact 50/5 CAN	EPOS4_0120h_6150h_0000h_0000h.bin
	EPOS4 Module 50/8 EPOS4 Compact 50/8 CAN	EPOS4_0120h_6551h_0000h_0000h.bin
	EPOS4 Module 50/15 EPOS4 Compact 50/15 CAN	EPOS4_0120h_6552h_0000h_0000h.bin
	EPOS4 50/5	EPOS4_0120h_6350h_0000h_0000h.bin
Features	Introduction	EPOS4 50/5
	SSI encoder	EC (BLDC) motor commutation by SSI absolute encoder only (without Hall sensors) added
	Digital I/Os	Digital input functionality «Drive enable» and «Quick stop» added
	Watchdog	Watchdog handling (including error signalization) added
Changes	CAN PDO	CAN PDO communication performance improved
	System monitoring	System performance monitoring (including error signalization) improved
	Bugfix	PVM statusword: Target reached signalization at velocity limitation corrected
	Bugfix	Mechanical tuning: Error handling at wrong torque constant detection improved

EPOS4_0110h_xxxxh_0000h_0000h (Release 2016-11)

Binary Files	EPOS4 Module 24/1.5 EPOS4 Compact 24/1.5 CAN	EPOS4_0110h_6050h_0000h_0000h.bin
	EPOS4 Module 50/5 EPOS4 Compact 50/5 CAN	EPOS4_0110h_6150h_0000h_0000h.bin
	EPOS4 Module 50/8 EPOS4 Compact 50/8 CAN	EPOS4_0110h_6551h_0000h_0000h.bin
	EPOS4 Module 50/15 EPOS4 Compact 50/15 CAN	EPOS4_0110h_6552h_0000h_0000h.bin
Features	Introduction	EPOS4 Module 24/1.5 and EPOS4 Compact 24/1.5 CAN EPOS4 Module 50/5 and EPOS4 Compact 50/55 CAN
	RS232 interface	RS232 communication interface added
	USB to CAN gateway	Basic USB-to-CAN gateway functionality (SDO communication only)
	RS232 to CAN gateway	Basic RS232-to-CAN gateway functionality (SDO communication only)
	SSI encoder	Support of SSI absolute encoders added
	Holding brake	Autonomous control of a holding brake based on the device state added
	Software position limits	Software position limits functionality added

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EPOS4_0110h_xxxxh_0000h_0000h (Release 2016-11)

Changes	Digital I/Os	Default values of object "Digital input configuration" (0x3142) adapted
	CAN heartbeat	Stability of heartbeat consumer improved
	Regulation Tuning	Object "Electrical system parameters" (0x3002) added
	Device state machine	Behavior at enabling while actual velocity is not zero improved
		Standstill window functionality added to detect standstill condition of the axis
	USB interface	Sensor handling at USB bus powering improved
	Bugfix	Wrong resetting of communication parameters to default value after firmware update fixed
	Bugfix	Sporadic Hall angle detection errors during alignment solved
	Bugfix	CAN PDO configuration handling corrected
	Bugfix	Data recorder: sporadic wrong recording data due to time stamp overflow solved
	Bugfix	Current offset calibration improved to prevent sporadic wrong current offset values
Bugfix	Sporadic communication blockage during boot up eliminated	

EPOS4_0100h_xxxxh_0000h_0000h (Release 2016-06)

Binary Files	EPOS4 Module 50/8 EPOS4 Compact 50/8 CAN	EPOS4_0100h_6551h_0000h_0000h.bin
	EPOS4 Module 50/15 EPOS4 Compact 50/15 CAN	EPOS4_0100h_6552h_0000h_0000h.bin
Features	Full range	Initial release