

IDX

Firmware Version «Readme»

Edition 2025-05 | DocID rel12957

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

VERSION DETAILS

Drive	Firmware Version		Hardware Version	Application	
	Latest Edition	First Edition		Number	Version
IDX 56	0x0180	0x160	0x6751	0x0000	0x0000
IDX 70	0x0180	0x170	0x6650	0x0000	0x0000

IMPORTANT INFORMATION

The functionality of an IDX drive 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.

- IDX drives 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’s graphical user interface for EPOS positioning controllers and IDX drives). You may access the downloads at <http://idx.maxongroup.com>.

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

maxon 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

IDX_0180h_xxxxh_0000h_0000h (Release 2025-05)		
Binary Files	IDX 56	IDX_0180h_6751h_0000h_0000h.bin
	IDX 70	IDX_0180h_6650h_0000h_0000h.bin
Features	Homing	New objects 0x605D “Halt option code” and 0x607C “Home offset” for SPS homing function-block compatibility
	CSV mode	Torque offset functionality added
Changes	EtherCAT communication	The error detection mechanism related to RX queue overflow (Error 0x8182) has been modified.
	CAN auto bitrate detection	Startup, reset behavior improved
	Bugfix	Limit switch handling with EtherCAT communication fixed
	Bugfix	Halt state behavior in homing mode corrected
	Bugfix	Target position and target velocity handling in disabled state corrected
	Bugfix	General minor bug fixing and improvements

IDX_0170h_xxxxh_0000h_0000h (Release 2021-04)

Binary Files	IDX 56	IDX_0170h_6751h_0000h_0000h.bin
	IDX 70	IDX_0170h_6650h_0000h_0000h.bin
Features	Introduction	«IDX 70»
	Position window	Position window functionality for PPM and HMM added
	Controller identification	Optical node identification by blinking LED added
	System monitoring	Actual PWM duty cycle object added
	Drive protection	Objects to configure the undervoltage, overvoltage, and thermal overload error limits added
	Error behavior	NMT state in case of CAN heartbeat error is new configurable
	SSI encoder	Homing methods with (virtual) index added
Changes	CAN communication	Support of Node-ID 255 (undefined) added (used as default value if no valid preset)
	EtherCAT communication	Check of minimal cycle time added. Process data latency improved.
	Regulation tuning	Improvements and corrections in regulation tuning system identification
	Velocity controller	Velocity controller filter cut off frequency object (0x30A2; 0x05) added
	Position controller	Position controller I gain scaling object (0x30A1; 0x09) added
	System monitoring	System overload signalization changed to warning (instead of error)
	Bugfix	Touch probe: occasionally wrong sensor index detection corrected
	Bugfix	CAN PDO: unexpected "CAN Rx queue overflow error" at overlapping PDO and SYNC frames fixed
	Bugfix	PPM with dual loop configuration: sporadic trajectory discontinuity corrected
	Bugfix	General minor bug fixing and improvements

IDX_0161h_xxxxh_0000h_0000h (Release 2020-04)

Binary Files	IDX 56	IDX_0161h_6751h_0000h_0000h.bin
Changes	Bugfix	Transfer of occasionally incorrect actual position values via EtherCAT resolved

IDX_0160h_xxxxh_0000h_0000h (Release 2019-11)

Binary Files	IDX 56	IDX_0160h_6751h_0000h_0000h.bin
Features	Full range	Initial release

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