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1. Introduction

Observation: For traceability reasons, the product revision is changed when there is an enhancement in its functional features or any change of the manufactory process and/or raw material. In the case that the user cannot find on the following tables the reason of the product revision, it is implicit that there was a change in the internal manufactory process and/or hardware, without affects the product functionality/compatibility.

Software available at https://smartstore.beijerelectronics.com/
Update procedures & support details visit https://www.beijerelectronics.com/

2. Nexto System

2.1 Nexto XP

2.1.1 BCS-XP300 – COMPACT PLC 16DI 16DO – BJ

REV	Description	Version	Date
BU	▪ Included a new command on System Web Page to reset the controller. ▪ Included support for Automation Composer persistent variables. ▪ Improvements in the System Web Page regarding USB 3G/4G modem usability and configuration. ▪ Fixed a login issue where access was denied due to a phantom active session (system indicated another user was logged in). ▪ Fixed a minor issue which could prevent USB WiFi adapters from connecting to SSIDs containing spaces.	1.14.106.0	03/08/2026

	▪ Fixed an issue where the USB 3G/4G modem would fail to reconnect following a communication failure with the SIM card. ▪ Fixed a problem where modifying the controller's system time could cause an overflow error in the OpenVPN connection. ▪ Fixed an OpenVPN configuration issue where the "Client-to-Client communication" feature could remain permanently enabled internally. ▪ Fixed an issue where the OpenVPN section in the System Web Page could become inaccessible after removing a certificate and resetting the controller. ▪ Fixed a problem with gratuitous ARP which could prevent the Ethernet interface to communicate after a download changing Ethernet parameters and later connecting the cable. ▪ Fixed an issue where the System Web Page would time out during data transfers to USB mass storage devices. ▪ Fixed the validation of maximum number of characters for User and Password on System Web Page. ▪ Fixed an issue where the controller could fail to load the application from a USB mass storage device. ▪ Fixed a problem where FTP Server communication with the client would not restore automatically after a network interruption. ▪ Fixed an issue which could incorrectly print a "Power failure" log message during a power down. ▪ Changed system permissions to allow multiple Mastertool instances to connect simultaneously with read-write access. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
BT	▪ Updated the product label for UL Listed / Class I, Division 2, Groups A, B, C, D T4 (C1D2) certification compliance. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.86.0	22/05/2026
BS	▪ Support for BCS Tools 3.77. ▪ Included commands to enable/disable the USB through the System Web Page and application. ▪ Fixed a problem that could result in session timeout during the download of large projects. ▪ Fixed a problem where the “Execute” button of Network Sniffer could be blocked. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.86.0	04/03/2026
BR	▪ Optimization in the time of the product testing process. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.77.0	15/01/2026
BQ	▪ Included support for EtherNet/IP Adapter Remote Mode (configurable via the System Web Page). ▪ Included support for the new parameter of Modbus Server drivers introduced on BCS Tools 3.75 which allows connections from other ethernet interfaces. ▪ Included a log message to inform lost of persistent/retain data after applying the settings via EasyConnection. ▪ Included a new feature to not load the Firewall rules when starting the controller with "dontbootapp". ▪ Fixed an issue introduced in version 1.14.20.0 where the controller could stop due a software watchdog when operarting in CANopen Slave Remote Mode. ▪ Fixed wrong number of BCS Tools Version in the Overview page when using BCS Tools 3.31. ▪ Fixed the Firewall issue where the user must add a rule for	1.14.77.0	10/11/2025

	the HTTP port. ▪ Fixed issue where the System Web Page could receive an error pop-up when accessing the Operation Mode or Network tabs. ▪ Fixed a problem where the Watch Variables tab in System Web Page could not update. ▪ Fixed a potential issue where the Management tab may keep loading until to be reloaded. ▪ Fixed issue where the System State diagnostic shows “Stop” instead of “No Application” after a Reset Origin. ▪ Fixed an issue where the programming system displayed duplicate read-only client connections. ▪ Fixed a problem where “InvalidDutyCycle” status was not turning on when duty cycle set to 0%. ▪ Removed BCS Tools Version number from the Overview page when configured as Remote Mode. ▪ General improvements in the Firewall web page usability. ▪ Improvements in the usability of import/export and configuration of Firewall feature. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
BP	▪ Fixed an issue introduced on version 1.12.24.0 where the controller could suffer a retentivity loss (retain data initialized) when powered off within a time window of 5 seconds after the application goes to RUN. ▪ Included support for version 5.0 of TP-Link UE300 USB-Ethernet adapter. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.12	10/06/2025
BO	▪ Included a new field in Overview tab of System Web Page informing the version of BCS Tools used by the application. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.7	03/04/2025
BN	▪ Starting on this revision, the product becomes certified for UL Listed/Class I, Division 2, Groups A, B, C, D T4 (C1D2). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.6	19/02/2025
BM	▪ Fixed a problem where, in very rare occasions, the controller firmware could be corrupted after a power down, making it unable to boot again (bricked). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.6	16/12/2024
BL	▪ Updated the electrical circuit of the product's overlay, which is now fixed to the connector in a different way, providing additional security when fixing the overlay. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.4	09/12/2024
BK	▪ Support for BCS Tools 3.63 ▪ Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater) ▪ Improvements on System Web Page to enhance the reliability and usability. ▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using “enforced encryption” option. ▪ Fixed a problem where the internal RS-485 termination was always turned on, independently of the setting selected on CPU configuration screen. ▪ Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected.	1.14.36.4	30/09/2024

	▪ Fixed a problem on OpenVPN where it could incorrectly show a valid certificate as invalid. ▪ Fixed a problem on CAN interface which could cause communication errors with baudrate below 500kbit/s ▪ Fixed visual issues on Firewall section of System Web Page ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		

BJ	▪ Support for BCS Tools 3.61
	▪ Included support for FTP
	▪ Improvements on System Web Page
	  ▪ Changed the timezone of the Clock Setting to match the user's computer .
	  ▪ Fixed error that could make the firewall rules not to be applied when the selected interfaces was "any"
	▪ Improved firmware update time
	▪ Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely.
	▪ Limited the maximum number of OPC UA Server sessions to 50
	▪ Fixed a problem introduced on version 1.12.5.3 where the controller could potentially fail to restore retain data if turned off in a very specific and short time window during the initialization process (while the application is still in STOP).
	▪ Fixed an issue that could make the current Application of the device not to be erased when transfering a new Application through the USB
	▪ Fixed a problem where the Ethernet port could stop to work on high traffic scenario
	▪ Fixed an incompatibility between USB Ethernet Adapter and VPN
	▪ Fixed an issue where it was not possible to create a user (User Management)
	▪ Fixed a problem introduced on version 1.12.24.0 which was making the CPU status on the treeview to become a red triangle when using BCS Tools version lower than 3.40
	▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.
		1.14.20.0	08/02/2024

BI	▪ Improvement in the product packaging process, where the connectors are now assembled instead of being delivered in a zip bag. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	19/12/2023
BH	▪ Improvement of the mecanic pieces of the product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	06/11/2023
BG	▪ Support for BCS Tools 3.52. ▪ New graphical design of System Web Page. ▪ Included support on System Web Page to set the PLC clock (time/date). ▪ Removed the requirement of PLC in STOP to perform a firmware update (now it will stop automatically). ▪ Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway. ▪ Included support to identify the device through the "wink" command on programming tool. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	05/09/2023
BF	▪ Fixed a problem introduced on the previous version, where the CAN Remote Mode stopped to work. ▪ Improvement on the MQTT to support multi-level topics	1.12.24.3	04/08/2023

	wildcard ('#'). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.		
BE	▪ Support for BCS Tools 3.51. ▪ Included support to OpenVPN, Firewall and USB-Ethernet Adapter. ▪ Improvements on System Web Page: ▪ Included configuration for OpenVPN, Firewall and USB-Ethernet Adapter. ▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer. ▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default. ▪ Optimization in the time required to perform the firmware update process. ▪ Fixed USB modem problem where the controller could suffer a memory leak when the modem reconnect multiple times. ▪ Fixed interoperability problem where the Ethernet/IP stop to communicate after inserting/configuring an USB modem. ▪ Fixed OPC UA interoperability with Kepware. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.24.0	21/06/2023
BD	▪ Hardware improvement to suport new PHY component (shortage issue) ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.5	25/01/2023
BC	▪ Fixed a problem where the Ethernet port could eventually fail to communicate when connecting the controller directly to a computer (point-to-point). ▪ Fixed CANopen Slave problem where the controller could not resume the communication after a failure in the CAN bus. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.5	16/01/2023
BB	▪ Support for BCS Tools 3.40. ▪ Fixed a problem where 3G/4G Modem could fail to reconnect after a communication failure. ▪ Increased the storage capability for the source code, stored now on a 64MB space that is shared with application and Webvisu files. It is necessary to reboot the controller without application to make this new space available. The source code size verification (warning message) was updated accordingly on BCS Tools 3.40. ▪ Fixed possible issue where the Web Page turns unaccesible after using it for a very long time. ▪ Fixed the retain system to keep the values after a reboot caused by an internal software error. ▪ Fixed potential exception when an application is removed (reset origin). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.3	15/12/2022
BA	▪ Minor hardware changes in order to improve the product. ▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product. ▪ Info: This version was built with CODESYS Control	1.11.10.0	06/12/2022

	Runtime Toolkit 3.5.15.0.		
AZ	▪ Improvement in the production process. Changed RTD settings in product testing. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	04/07/2022
AY	▪ Minor hardware adjustments to support a new alternative part number (due to the shortage of electronic components). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	27/05/2022
AX	▪ Minor hardware adjustments to support a new alternative part number (due to the shortage of electronic components). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	04/03/2022
AW	▪ Changes in the source code shared with other products that doesn't affect this product behavior. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	18/01/2022
AV	▪ Improved startup stability under specific situations with low power supply voltage. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.2.0	27/10/2021
AU	▪ New format of firmware update file. This update requires the controller running on firmware version 1.9.29.0 or greater. ▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface. ▪ Included login mechanism for operation mode page in web interface. ▪ Included a new reset mechanism to solve connection failures of USB modem. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.2.0	26/07/2021
-	▪ Changed firmware update mechanism to include support for the new file format that will be introduced on upcoming versions. ▪ Included support for PROFINET Controller. ▪ Included support to CAN J1939. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.29.0	26/07/2021
AT	▪ Included support for *"number of connected clients"* diagnostic in status bar. To see this diagnostic, BCS Tools version 3.31 or greater is required. ▪ Removed the hidden page "getlogs" from the system web page to improve cyber security. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.25.0	13/01/2021
AS	▪ Change in the product hardware to support minimum operation temperature of - 20ºC. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.17.0	28/12/2020
AR	▪ Included support for USB WiFi adapters. ▪ Included suppport for additional USB modem devices: Huawei E3276 and E8372. ▪ Fixed a problem on the PTO fast output that could potentially turn on the next normal digital output. ▪ Fixed a problem where the digital input value was not updated on the execution of external interrupt task. ▪ Fixed a problem related to the system webpage cache. This eliminates the need of clearing the cache on browser side, which was previously required under some circumstances to show the page correctly.	1.9.17.0	18/08/2020

	▪ Updated the product label for compliance of the UL certification, File Number E496087. ▪ Included protectors for the product connectors. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.		
AQ	▪ Improved performance (CPU clock increased by 85% with bootloader version 1.0.0.15 included on this version). ▪ Included support to USB modem. ▪ Included support to TLS v1.2 and client certificate in the Function Block MQTT Client (the last one requires the BCS Tools 3.23 or greater). ▪ Improved immunity level of RTD inputs against external electromagnetic interferences. ▪ Fixed a problem that could cause corruption of operating system in case of engergy interruption during a specific moment of power-up process, leading the controller to a permanent inoperative state. ▪ Fixed a problem on CANopen Remote I/O mode which could eventually prevent the controller from starting up. ▪ Fixed a problem that could make the DG LED to blink 4x with no reason. ▪ Improvements on CANopen Remote I/O mode. ▪ Improvements on serial communication. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.9.0	29/05/2020
AP	▪ Included support for USB Serial RS-232 converter ▪ Included support for the latest version of LibSQLClient library. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.11.0	09/01/2020
AO	▪ Included support for CANopen Manager (requires BCS Tools 3.19 or greater). ▪ Included support for MQTT Client Function Block (requires BCS Tools 3.19 or greater). ▪ Fixed the diagnostic tDetailed.Serial.COM1.wRXPendingBytes which stopped to work on previous version, affecting the Function Block of Serial communication. ▪ Fixed a situation that could cause a drift of RTC time higher than the specified. ▪ Included support for CAN termination configuration, introduced on BCS Tools 3.19. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.5.0	11/12/2019
AN	▪ Included bootloader version 1.0.0.11, which increases the immunity level against external electromagnetic interferences. The bootloader is now included inside the firmware image file, and will be updated automatically during the firmware update process **ONLY** if the controller is running with version 1.7.49.0 or greater. If the firmware update process is performed on a controller with an installed firmware lower than 1.7.49.0, it is required to perform the update procedure **AGAIN** (i.e, twice, to the same version) to have the bootloader updated. ▪ Included support for Ethernet/IP Scanner. ▪ Included support for I/O expansion through CANopen (CANopen Slave mode). ▪ Included support for 2400 and 4800 bits/s baudrates on the serial communication. ▪ Improvements on MODBUS RTU Slave timing, where sporadic communication errors could occur on a RS-485	1.7.49.0	27/09/2019

	network composed by several slaves. ▪ Changed maximum source code size from 16MB to 26MB (requires a reboot with no apllication to apply this increase; the warning message updated on version 3.18 of BCS Tools). ▪ Fixed EasyConnection behavior, where the application was not being erased after applying the new IP adress, resulting on returning to the IP address set by the application. ▪ Improved mounting of USB mass storage devices, increasing the compatiblity with certain models of flash drives. ▪ Fixed maximum number of ARTI/OPC DA connections from 4 to 8. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.		
AM	▪ Fixed generation of counter interrupt. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.40.0	07/09/2019
AL	▪ Replacement for the overlay flat cable connector part number and change in the insertion procedure. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.35.0	06/06/2019
AK	▪ Included support for new homologated memories ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.35.0	21/05/2019
AJ	▪ Fixed external input I02, which stopped to work on previous version. ▪ Improvements on fast inputs and outputs. ▪ Improvements on the USB mass storage mounting system. ▪ Improved EMC immunity level ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.32.0	09/05/2019
AI	▪ Included support for OPC UA protocol ▪ Included support for MSSQL_Client Function Block for accessing Microsoft databases. ▪ Included a fixed DNS Server configuration (8.8.8.8 and 8.8.4.4) ▪ Included support for Fast I/O (counters, external interrupts, PTO/PWM outputs). ▪ Included support for FAT32 LBA filesystem, used on big capacity USB mass storage devices. ▪ Fixed a problem on function GetTimeZone, which could cause an exception leading the CPU to STOP. ▪ Improvements on GetDateAndTime and GetDayOfWeek functions, which could cause peak on execution time. ▪ Fixed a problem on RS-485 serial driver, which could cause random errors on MODBUS RTU communication. ▪ Fixed an RTD reading error that affected a small group of manufactured units ▪ Changed the value of some resistors and capacitors for standarization with other products (does not affects product's technical characteristics) ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.17.0	15/03/2019
AH	▪ Change in manufacturing documentation to include additional information for soldering the CPU crystal. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.7.0	30/01/2019
AG	▪ Changed to update status of digital input LEDs even with no application loaded ▪ Changed to blink 1x the DG LED when no application is loaded	1.7.7.0	05/12/2018

	▪ Fixed company name on “Target Vendor” field on gateway scan ▪ Removed log message generated when the system time is updated by SNTP (to avoid log being flooded with this message) ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.		
AF	▪ Improved LED diagnostic indication ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.5.0	12/11/2018
AE	▪ Included support for USB mass storage devices ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.3.0	26/10/2018
AD	▪ Initial revision. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.40.	1.7.0.12	10/10/2018
	▪		

2.1.2 BCS-XP315 – COMPACT PLC 16DI 16DO 5AI 2RTD – BJ

REV	Description	Version	Date
BV	▪ Included a new command on System Web Page to reset the controller. ▪ Included support for Automation Composer persistent variables. ▪ Improvements in the System Web Page regarding USB 3G/4G modem usability and configuration. ▪ Fixed a login issue where access was denied due to a phantom active session (system indicated another user was logged in). ▪ Fixed a minor issue which could prevent USB WiFi adapters from connecting to SSIDs containing spaces. ▪ Fixed an issue where the USB 3G/4G modem would fail to reconnect following a communication failure with the SIM card. ▪ Fixed a problem where modifying the controller's system time could cause an overflow error in the OpenVPN connection. ▪ Fixed an OpenVPN configuration issue where the "Client-to-Client communication" feature could remain permanently enabled internally. ▪ Fixed an issue where the OpenVPN section in the System Web Page could become inaccessible after removing a certificate and resetting the controller. ▪ Fixed a problem with gratuitous ARP which could prevent the Ethernet interface to communicate after a download changing Ethernet parameters and later connecting the cable. ▪ Fixed an issue where the System Web Page would time out during data transfers to USB mass storage devices. ▪ Fixed the validation of maximum number of characters for User and Password on System Web Page. ▪ Fixed an issue where the controller could fail to load the application from a USB mass storage device. ▪ Fixed a problem where FTP Server communication with the client would not restore automatically after a network interruption. ▪ Fixed an issue which could incorrectly print a "Power failure" log message during a power down. ▪ Changed system permissions to allow multiple Mastertool instances to connect simultaneously with read-write access.	1.14.106.0	03/08/2026

	▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
BU	▪ Updated the product label for UL Listed / Class I, Division 2, Groups A, B, C, D T4 (C1D2) certification compliance. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.86.0	22/05/2026
BT	▪ Support for BCS Tools 3.77. ▪ Included commands to enable/disable the USB through the System Web Page and application. ▪ Fixed a problem that could result in session timeout during the download of large projects. ▪ Fixed a problem where the “Execute” button of Network Sniffer could be blocked. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.86.0	04/03/2026
BS	▪ Optimization in the time of the product testing process. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.77.0	15/01/2026
BR	▪ Included support for EtherNet/IP Adapter Remote Mode (configurable via the System Web Page). ▪ Included support for the new parameter of Modbus Server drivers introduced on BCS Tools 3.75 which allows connections from other ethernet interfaces. ▪ Included a log message to inform lost of persistent/retain data after applying the settings via EasyConnection. ▪ Included a new feature to not load the Firewall rules when starting the controller with "dontbootapp". ▪ Fixed an issue introduced in version 1.14.20.0 where the controller could stop due a software watchdog when operarting in CANopen Slave Remote Mode. ▪ Fixed wrong number of BCS Tools Version in the Overview page when using BCS Tools 3.31. ▪ Fixed the Firewall issue where the user must add a rule for the HTTP port. ▪ Fixed issue where the System Web Page could receive an error pop-up when accessing the Operation Mode or Network tabs. ▪ Fixed a problem where the Watch Variables tab in System Web Page could not update. ▪ Fixed a potential issue where the Management tab may keep loading until to be reloaded. ▪ Fixed issue where the System State diagnostic shows “Stop” instead of “No Application” after a Reset Origin. ▪ Fixed an issue where the programming system displayed duplicate read-only client connections. ▪ Fixed a problem where “InvalidDutyCycle” status was not turning on when duty cycle set to 0%. ▪ Removed BCS Tools Version number from the Overview page when configured as Remote Mode. ▪ General improvements in the Firewall web page usability. ▪ Improvements in the usability of import/export and configuration of Firewall feature. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.77.0	10/11/2025
BQ	▪ Fixed an issue introduced on version 1.12.24.0 where the controller could suffer a retentivity loss (retain data initialized) when powered off within a time window of 5 seconds after the application goes to RUN. ▪ Included support for version 5.0 of TP-Link UE300 USB-Ethernet adapter. ▪ Info: This version was built with CODESYS Control	1.14.36.12	10/06/2025

	Runtime Toolkit 3.5.18.60.		
BP	▪ Included a new field in Overview tab of System Web Page informing the version of BCS Tools used by the application. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.7	03/04/2025
BO	▪ Starting on this revision, the product becomes certified for UL Listed/Class I, Division 2, Groups A, B, C, D T4 (C1D2). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.6	19/02/2025
BN	▪ Fixed a problem where, in very rare occasions, the controller firmware could be corrupted after a power down, making it unable to boot again (bricked). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.6	16/12/2024
BM	▪ This new product revision refers to changes in internal documentation, in which similar products were changed, which did not affect this product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.4	23/10/2024
BL	▪ Updated the electrical circuit of the product's overlay, which is now fixed to the connector in a different way, providing additional security when fixing the overlay. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.4	07/10/2024
BK	▪ Support for BCS Tools 3.63 ▪ Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater) ▪ Improvements on System Web Page to enhance the reliability and usability. ▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using “enforced encryption” option. ▪ Fixed a problem where the internal RS-485 termination was always turned on, independently of the setting selected on CPU configuration screen. ▪ Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected. ▪ Fixed a problem on OpenVPN where it could incorrectly show a valid certificate as invalid. ▪ Fixed a problem on CAN interface which could cause communication errors with baudrate below 500kbit/s ▪ Fixed visual issues on Firewall section of System Web Page ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.4	30/09/2024
BJ	▪ Support for BCS Tools 3.61 ▪ Included support for FTP ▪ Improvements on System Web Page • Changed the timezone of the Clock Setting to match the user’s computer . • Fixed error that could make the firewall rules not to be applied when the selected interfaces was “any” ▪ Improved firmware update time ▪ Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely. ▪ Limited the maximum number of OPC UA Server sessions to 50 ▪ Fixed a problem introduced on version 1.12.5.3 where the controller could potentially fail to restore retain data if turned off in a very specific and short time window during the initialization process (while the application is still in	1.14.20.0	08/02/2024

	STOP). ▪ Fixed an issue that could make the current Application of the device not to be erased when transfering a new Application through the USB ▪ Fixed a problem where the Ethernet port could stop to work on high traffic scenario ▪ Fixed an incompatibility between USB Ethernet Adapter and VPN ▪ Fixed an issue where it was not possible to create a user (User Management) ▪ Fixed a problem introduced on version 1.12.24.0 which was making the CPU status on the treeview to become a red triangle when using BCS Tools version lower than 3.40 ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
BI	▪ Improvement in the product packaging process, where the connectors are now assembled instead of being delivered in a zip bag. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	19/12/2023
BH	▪ Improvement of the mecanic pieces of the product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	06/11/2023
BG	▪ Support for BCS Tools 3.52. ▪ New graphical design of System Web Page. ▪ Included support on System Web Page to set the PLC clock (time/date). ▪ Removed the requirement of PLC in STOP to perform a firmware update (now it will stop automatically). ▪ Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway. ▪ Included support to identify the device through the "wink" command on programming tool. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	05/09/2023
BF	▪ Fixed a problem introduced on the previous version, where the CAN Remote Mode stopped to work. ▪ Improvement on the MQTT to support multi-level topics wildcard (‘#’). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.24.3	04/08/2023
BE	▪ Support for BCS Tools 3.51. ▪ Included support to OpenVPN, Firewall and USB-Ethernet Adapter. ▪ Improvements on System Web Page: ▪ Included configuration for OpenVPN, Firewall and USB-Ethernet Adapter. ▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer. ▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default. ▪ Optimization in the time required to perform the firmware update process. ▪ Fixed USB modem problem where the controller could suffer a memory leak when the modem reconnect multiple times. ▪ Fixed interoperability problem where the Ethernet/IP stop to communicate after inserting/configuring an USB modem. ▪ Fixed OPC UA interoperability with Kepware.	1.12.24.0	21/06/2023

	▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.		
BD	▪ Hardware improvement to suport new PHY component (shortage issue) ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.5	25/01/2023
BC	▪ Fixed a problem where the Ethernet port could eventually fail to communicate when connecting the controller directly to a computer (point-to-point). ▪ Fixed CANopen Slave problem where the controller could not resume the communication after a failure in the CAN bus. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.5	16/01/2023
BB	▪ Support for BCS Tools 3.40. ▪ Fixed a problem where 3G/4G Modem could fail to reconnect after a communication failure. ▪ Increased the storage capability for the source code, stored now on a 64MB space that is shared with application and Webvisu files. It is necessary to reboot the controller without application to make this new space available. The source code size verification (warning message) was updated accordingly on BCS Tools 3.40. ▪ Fixed possible issue where the Web Page turns unaccesible after using it for a very long time. ▪ Fixed the retain system to keep the values after a reboot caused by an internal software error. ▪ Fixed potential exception when an application is removed (reset origin). ▪ Included support for additional analog inputs using LibIntegratedIoExt introduced on BCS Tools 3.40. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.3	15/12/2022
BA	▪ Minor hardware changes in order to improve the product. ▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	06/12/2022
AZ	▪ Improvement in the production process. Changed RTD settings in product testing. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	04/07/2022
AY	▪ Minor hardware adjustments to support a new alternative part number (due to the shortage of electronic components). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	27/05/2022
AX	▪ Minor hardware adjustments to support a new alternative part number (due to the shortage of electronic components). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	04/03/2022
AW	▪ Changes in the source code shared with other products that doesn't affect this product behavior. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	18/01/2022
AV	▪ Small changes in the produtct’s hardware to improve font startup behavior, making startup faster. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.2.0	27/10/2021

AU	▪ New format of firmware update file. This update requires the controller running on firmware version 1.9.29.0 or greater. ▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface. ▪ Included login mechanism for operation mode page in web interface. ▪ Included a new reset mechanism to solve connection failures of USB modem. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.2.0	26/07/2021
-	▪ Changed firmware update mechanism to include support for the new file format that will be introduced on upcoming versions. ▪ Included support for PROFINET Controller. ▪ Included support to CAN J1939. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.29.0	26/07/2021
AT	▪ Included support for *"number of connected clients"* diagnostic in status bar. To see this diagnostic, BCS Tools version 3.31 or greater is required. ▪ Removed the hidden page "getlogs" from the system web page to improve cyber security. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.25.0	13/01/2021
AS	▪ Change in the product hardware to support minimum operation temperature of - 20ºC. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.17.0	28/12/2020
AR	▪ Included support for USB WiFi adapters. ▪ Included suppport for additional USB modem devices: Huawei E3276 and E8372. ▪ Fixed a problem on the PTO fast output that could potentially turn on the next normal digital output. ▪ Fixed a problem that could lead to a negative offset on RTD reading. ▪ Fixed a problem where the digital input value was not updated on the execution of external interrupt task. ▪ Fixed a problem related to the system webpage cache. This eliminates the need of clearing the cache on browser side, which was previously required under some circumstances to show the page correctly. ▪ Updated the product label for compliance of the UL certification, File Number E496087. ▪ Included protectors for the product connectors. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.17.0	18/08/2020
AQ	▪ Improved performance (CPU clock increased by 85% with bootloader version 1.0.0.15 included on this version). ▪ Included support to USB modem. ▪ Included support to TLS v1.2 and client certificate in the Function Block MQTT Client (the last one requires the BCS Tools 3.23 or greater). ▪ Improved immunity level of RTD inputs against external electromagnetic interferences. ▪ Fixed a problem that could cause corruption of operating system in case of engergy interruption during a specific moment of power-up process, leading the controller to a permanent inoperative state. ▪ Fixed a problem on CANopen Remote I/O mode which could eventually prevent the controller from starting up. ▪ Improvements on CANopen Remote I/O mode.	1.9.9.0	29/05/2020

	▪ Improvements on serial communication. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.		
AP	▪ Included support for USB Serial RS-232 converter ▪ Included support for the latest version of LibSQLClient library. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.11.0	09/01/2020
AO	▪ Included support for CANopen Manager (requires BCS Tools 3.19 or greater). ▪ Included support for MQTT Client Function Block (requires BCS Tools 3.19 or greater). ▪ Fixed the diagnostic tDetailed.Serial.COM1.wRXPendingBytes which stopped to work on previous version, affecting the Function Block of Serial communication. ▪ Fixed a situation that could cause a drift of RTC time higher than the specified. ▪ Included support for CAN termination configuration, introduced on BCS Tools 3.19. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.5.0	11/12/2019
AN	▪ Included bootloader version 1.0.0.11, which increases the immunity level against external electromagnetic interferences. The bootloader is now included inside the firmware image file, and will be updated automatically during the firmware update process **ONLY** if the controller is running with version 1.7.49.0 or greater. If the firmware update process is performed on a controller with an installed firmware lower than 1.7.49.0, it is required to perform the update procedure **AGAIN** (i.e, twice, to the same version) to have the bootloader updated. ▪ Included support for Ethernet/IP Scanner. ▪ Included support for I/O expansion through CANopen (CANopen Slave mode). ▪ Included support for 2400 and 4800 bits/s baudrates on the serial communication. ▪ Improvements on MODBUS RTU Slave timing, where sporadic communication errors could occur on a RS-485 network composed by several slaves. ▪ Changed maximum source code size from 16MB to 26MB (requires a reboot with no apllication to apply this increase; the warning message updated on version 3.18 of BCS Tools). ▪ Fixed EasyConnection behavior, where the application was not being erased after applying the new IP adress, resulting on returning to the IP address set by the application. ▪ Improved mounting of USB mass storage devices, increasing the compatiblity with certain models of flash drives. ▪ Fixed maximum number of ARTI/OPC DA connections from 4 to 8. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.49.0	27/09/2019
AM	▪ Fixed generation of counter interrupt. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.40.0	07/09/2019
AL	▪ Replacement for the overlay flat cable connector part number and change in the insertion procedure. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.35.0	06/06/2019
AK	▪ Included support for new homologated memories	1.7.35.0	21/05/2019

	▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.		
AJ	▪ Fixed external input I02, which stopped to work on previous version. ▪ Improvements on fast inputs and outputs. ▪ Improvements on the USB mass storage mounting system. ▪ Improved EMC immunity level ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.32.0	09/05/2019
AI	▪ Included support for OPC UA protocol ▪ Included support for MSSQL_Client Function Block for accessing Microsoft databases. ▪ Included a fixed DNS Server configuration (8.8.8.8 and 8.8.4.4) ▪ Included support for Fast I/O (counters, external interrupts, PTO/PWM outputs, ...) ▪ Included support for FAT32 LBA filesystem, used on big capacity USB mass storage devices ▪ Fixed a problem on function GetTimeZone, which could cause an exception leading the CPU to STOP. ▪ Improvements on GetDateAndTime and GetDayOfWeek functions, which could cause peak on execution time. ▪ Fixed a problem on RS-485 serial driver, which could cause random errors on MODBUS RTU communication ▪ Fixed an RTD reading error that affected a small group of manufactured units ▪ Changed the value of some resistors and capacitors for standarization with other products (does not affects product's technical characteristics) ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.17.0	15/03/2019
AH	▪ Change in manufacturing documentation to include additional information for soldering the CPU crystal. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.7.0	30/01/2019
AG	▪ Changed to update status of digital input LEDs even with no application loaded ▪ Changed to blink 1x the DG LED when no application is loaded ▪ Fixed company name on "Target Vendor" field on gateway scan ▪ Removed log message generated when the system time is updated by SNTP (to avoid log being flooded with this message) ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.7.0	05/12/2018
AF	▪ Improved LED diagnostic indication ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.5.0	12/11/2018
AE	▪ Included support for USB mass storage devices ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.3.0	26/10/2018
AD	▪ Initial revision. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.40.	1.7.0.12	10/10/2018

2.1.3 BCS-XP325 – COMPACT PLC 16DI 16DO 5AI 4AO 2RTD – BJ

REV	Description	Version	Date
BZ	▪ Included a new command on System Web Page to reset the	1.14.106.0	03/08/2026

	controller. ▪ Included support for Automation Composer persistent variables. ▪ Improvements in the System Web Page regarding USB 3G/4G modem usability and configuration. ▪ Fixed a login issue where access was denied due to a phantom active session (system indicated another user was logged in). ▪ Fixed a minor issue which could prevent USB WiFi adapters from connecting to SSIDs containing spaces. ▪ Fixed an issue where the USB 3G/4G modem would fail to reconnect following a communication failure with the SIM card. ▪ Fixed a problem where modifying the controller's system time could cause an overflow error in the OpenVPN connection. ▪ Fixed an OpenVPN configuration issue where the "Client-to-Client communication" feature could remain permanently enabled internally. ▪ Fixed an issue where the OpenVPN section in the System Web Page could become inaccessible after removing a certificate and resetting the controller. ▪ Fixed a problem with gratuitous ARP which could prevent the Ethernet interface to communicate after a download changing Ethernet parameters and later connecting the cable. ▪ Fixed an issue where the System Web Page would time out during data transfers to USB mass storage devices. ▪ Fixed the validation of maximum number of characters for User and Password on System Web Page. ▪ Fixed an issue where the controller could fail to load the application from a USB mass storage device. ▪ Fixed a problem where FTP Server communication with the client would not restore automatically after a network interruption. ▪ Fixed an issue which could incorrectly print a "Power failure" log message during a power down. ▪ Changed system permissions to allow multiple Mastertool instances to connect simultaneously with read-write access. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
BY	▪ Updated the product label for UL Listed / Class I, Division 2, Groups A, B, C, D T4 (C1D2) certification compliance. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.86.0	22/05/2026
BX	▪ Support for BCS Tools 3.77. ▪ Included commands to enable/disable the USB through the System Web Page and application. ▪ Fixed a problem that could result in session timeout during the download of large projects. ▪ Fixed a problem where the “Execute” button of Network Sniffer could be blocked. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.86.0	04/03/2026
BW	▪ Optimization in the time of the product testing process. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.77.0	15/01/2026
BV	▪ Included support for EtherNet/IP Adapter Remote Mode (configurable via the System Web Page). ▪ Included support for the new parameter of Modbus Server drivers introduced on BCS Tools 3.75 which allows connections from other ethernet interfaces.	1.14.77.0	10/11/2025

	▪ Included a log message to inform lost of persistent/retain data after applying the settings via EasyConnection. ▪ Included a new feature to not load the Firewall rules when starting the controller with "dontbootapp". ▪ Fixed an issue introduced in version 1.14.20.0 where the controller could stop due a software watchdog when operarting in CANopen Slave Remote Mode. ▪ Fixed wrong number of BCS Tools Version in the Overview page when using BCS Tools 3.31. ▪ Fixed the Firewall issue where the user must add a rule for the HTTP port. ▪ Fixed issue where the System Web Page could receive an error pop-up when accessing the Operation Mode or Network tabs. ▪ Fixed a problem where the Watch Variables tab in System Web Page could not update. ▪ Fixed a potential issue where the Management tab may keep loading until to be reloaded. ▪ Fixed issue where the System State diagnostic shows “Stop” instead of “No Application” after a Reset Origin. ▪ Fixed an issue where the programming system displayed duplicate read-only client connections. ▪ Fixed a problem where “InvalidDutyCycle” status was not turning on when duty cycle set to 0%. ▪ Removed BCS Tools Version number from the Overview page when configured as Remote Mode. ▪ General improvements in the Firewall web page usability. ▪ Improvements in the usability of import/export and configuration of Firewall feature. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
BU	▪ Fixed an issue introduced on version 1.12.24.0 where the controller could suffer a retentivity loss (retain data initialized) when powered off within a time window of 5 seconds after the application goes to RUN. ▪ Included support for version 5.0 of TP-Link UE300 USB-Ethernet adapter. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.12	10/06/2025
BT	▪ Included a new field in Overview tab of System Web Page informing the version of BCS Tools used by the application. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.7	03/04/2025
BS	▪ Starting on this revision, the product becomes certified for UL Listed/Class I, Division 2, Groups A, B, C, D T4 (C1D2). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.6	20/02/2025
BR	▪ Fixed a problem where, in very rare occasions, the controller firmware could be corrupted after a power down, making it unable to boot again (bricked). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.6	16/12/2024
BQ	▪ This new product revision refers to changes in internal documentation, in which similar products were changed, which did not affect this product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.4	16/10/2024
BP	▪ Updated the electrical circuit of the product's overlay, which is now fixed to the connector in a different way, providing additional security when fixing the overlay.	1.14.36.4	03/10/2024

	▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
BO	▪ Support for BCS Tools 3.63 ▪ Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater) ▪ Improvements on System Web Page to enhance the reliability and usability. ▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using “enforced encryption” option. ▪ Fixed a problem where the internal RS-485 termination was always turned on, independently of the setting selected on CPU configuration screen. ▪ Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected. ▪ Fixed a problem on OpenVPN where it could incorrectly show a valid certificate as invalid. ▪ Fixed a problem on CAN interface which could cause communication errors with baudrate below 500kbit/s ▪ Fixed visual issues on Firewall section of System Web Page ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.4	30/09/2024

BN	▪ Support for BCS Tools 3.61
	▪ Included support for FTP
	▪ Improvements on System Web Page
	  ▪ Changed the timezone of the Clock Setting to match the user’s computer .
	  ▪ Fixed error that could make the firewall rules not to be applied when the selected interfaces was “any”
	▪ Improved firmware update time
	▪ Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely.
	▪ Limited the maximum number of OPC UA Server sessions to 50
	▪ Fixed a problem introduced on version 1.12.5.3 where the controller could potentially fail to restore retain data if turned off in a very specific and short time window during the initialization process (while the application is still in STOP).
	▪ Fixed an issue that could make the current Application of the device not to be erased when transfering a new Application through the USB
	▪ Fixed a problem where the Ethernet port could stop to work on high traffic scenario
	▪ Fixed an incompatibility between USB Ethernet Adapter and VPN
	▪ Fixed an issue where it was not possible to create a user (User Management)
	▪ Fixed a problem introduced on version 1.12.24.0 which was making the CPU status on the treeview to become a red triangle when using BCS Tools version lower than 3.40
	▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.
		1.14.20.0	08/02/2024

BM	▪ Improvement in the product packaging process, where the connectors are now assembled instead of being delivered in a zip bag. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	19/12/2023
BL	▪ Improvement of the mecanic pieces of the product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	06/11/2023

BK	▪ Support for BCS Tools 3.52. ▪ New graphical design of System Web Page. ▪ Included support on System Web Page to set the PLC clock (time/date). ▪ Removed the requirement of PLC in STOP to perform a firmware update (now it will stop automatically). ▪ Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway. ▪ Included support to identify the device through the "wink" command on programming tool. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	05/09/2023
BJ	▪ Fixed a problem introduced on the previous version, where the CAN Remote Mode stopped to work. ▪ Improvement on the MQTT to support multi-level topics wildcard (‘#’). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.24.3	04/08/2023
BI	▪ Support for BCS Tools 3.51. ▪ Included support to OpenVPN, Firewall and USB-Ethernet Adapter. ▪ Improvements on System Web Page: ▪ Included configuration for OpenVPN, Firewall and USB-Ethernet Adapter. ▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer. ▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default. ▪ Optimization in the time required to perform the firmware update process. ▪ Fixed USB modem problem where the controller could suffer a memory leak when the modem reconnect multiple times. ▪ Fixed interoperability problem where the Ethernet/IP stop to communicate after inserting/configuring an USB modem. Fixed OPC UA interoperability with Kepware. Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.24.0	21/06/2023
BH	▪ Hardware improvement to suport new PHY component (shortage issue) ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.5	25/01/2023
BG	▪ Fixed a problem where the Ethernet port could eventually fail to communicate when connecting the controller directly to a computer (point-to-point). ▪ Fixed CANopen Slave problem where the controller could not resume the communication after a failure in the CAN bus. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.5	16/01/2023
BF	▪ Support for BCS Tools 3.40. ▪ Fixed a problem where 3G/4G Modem could fail to reconnect after a communication failure. ▪ Increased the storage capability for the source code, stored now on a 64MB space that is shared with application and Webvisu files. It is necessary to reboot the controller without application to make this new space available. The source code size verification (warning message) was updated accordingly on BCS Tools 3.40.	1.12.5.3	15/12/2022

	▪ Fixed possible issue where the Web Page turns unaccesible after using it for a very long time. ▪ Fixed the retain system to keep the values after a reboot caused by an internal software error. ▪ Fixed potential exception when an application is removed (reset origin). ▪ Included support for additional analog inputs using LibIntegratedIoExt introduced on BCS Tools 3.40. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.		
BE	▪ Minor hardware changes in order to improve the product. ▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	06/12/2022
BD	▪ Improvement in the production process. Changed RTD settings in product testing. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	04/07/2022
BC	▪ Minor hardware adjustments to support a new alternative part number (due to the shortage of electronic components). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	27/05/2022
BB	▪ Minor hardware adjustments to support a new alternative part number (due to the shortage of electronic components). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	04/03/2022
BA	▪ Changes in the source code shared with other products that doesn't affect this product behavior. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	18/01/2022
AZ	▪ Small changes in the produtct's hardware to improve font startup behavior, making startup faster. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.2.0	27/10/2021
AY	▪ New format of firmware update file. This update requires the controller running on firmware version 1.9.29.0 or greater. ▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface. ▪ Included login mechanism for operation mode page in web interface. ▪ Included a new reset mechanism to solve connection failures of USB modem. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.2.0	26/07/2021
-	▪ Changed firmware update mechanism to include support for the new file format that will be introduced on upcoming versions. ▪ Included support for PROFINET Controller. ▪ Included support to CAN J1939. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.29.0	26/07/2021
AX	▪ Included support for *"number of connected clients"* diagnostic in status bar. To see this diagnostic, BCS Tools version 3.31 or greater is required. ▪ Removed the hidden page "getlogs" from the system web page to improve cyber security. ▪ Info: This version was built with CODESYS Control	1.9.25.0	13/01/2021

	Runtime Toolkit 3.5.15.0.		
AW	▪ Change in the product hardware to support minimum operation temperature of - 20ºC. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.17.0	28/12/2020
AV	▪ Updated the product label for compliance of the UL certification, File Number E496087. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.17.0	18/08/2020
AU	▪ Included support for USB WiFi adapters. ▪ Included suppport for additional USB modem devices: Huawei E3276 and E8372. ▪ Fixed a problem on the PTO fast output that could potentially turn on the next normal digital output. ▪ Fixed a problem that could lead to a negative offset on RTD reading. ▪ Fixed a problem where the digital input value was not updated on the execution of external interrupt task. ▪ Fixed a problem related to the system webpage cache. This eliminates the need of clearing the cache on browser side, which was previously required under some circumstances to show the page correctly. ▪ Included protectors for the product connectors. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.17.0	18/08/2020
AT	▪ Improved performance (CPU clock increased by 85% with bootloader version 1.0.0.15 included on this version). ▪ Included support to USB modem. ▪ Included support to TLS v1.2 and client certificate in the Function Block MQTT Client (the last one requires the BCS Tools 3.23 or greater). ▪ Improved immunity level of RTD inputs against external electromagnetic interferences. ▪ Fixed a problem that could cause corruption of operating system in case of engergy interruption during a specific moment of power-up process, leading the controller to a permanent inoperative state. ▪ Fixed a problem on CANopen Remote I/O mode which could eventually prevent the controller from starting up. ▪ Improvements on CANopen Remote I/O mode. ▪ Improvements on serial communication. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.9.0	29/05/2020
AS	▪ Included support for USB Serial RS-232 converter ▪ Included support for the latest version of LibSQLClient library. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.11.0	01/09/2020
AR	▪ Included support for MQTT Client Function Block (requires BCS Tools 3.19 or greater). ▪ Fixed the diagnostic tDetailed.Serial.COM1.wRXPendingBytes which stopped to work on previous version, affecting the Function Block of Serial communication. ▪ Fixed a situation that could cause a drift of RTC time higher than the specified. ▪ Included support for CAN termination configuration, introduced on BCS Tools 3.19. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.5.0	11/12/2019
AQ	▪ Included bootloader version 1.0.0.11, which increases the	1.7.49.0	27/09/2019

	immunity level against external electromagnetic interferences. The bootloader is now included inside the firmware image file, and will be updated automatically during the firmware update process **ONLY** if the controller is running with version 1.7.49.0 or greater. If the firmware update process is performed on a controller with an installed firmware lower than 1.7.49.0, it is required to perform the update procedure **AGAIN** (i.e, twice, to the same version) to have the bootloader updated. ▪ Included support for Ethernet/IP Scanner. ▪ Included support for I/O expansion through CANopen (CANopen Slave mode). ▪ Included support for 2400 and 4800 bits/s baudrates on the serial communication. ▪ Improvements on MODBUS RTU Slave timing, where sporadic communication errors could occur on a RS-485 network composed by several slaves. ▪ Changed maximum source code size from 16MB to 26MB (requires a reboot with no apllication to apply this increase; the warning message updated on version 3.18 of BCS Tools). ▪ Fixed EasyConnection behavior, where the application was not being erased after applying the new IP adress, resulting on returning to the IP address set by the application. ▪ Improved mounting of USB mass storage devices, increasing the compatiblity with certain models of flash drives. ▪ Fixed maximum number of ARTI/OPC DA connections from 4 to 8. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.		
AP	▪ Fixed generation of counter interrupt. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.40.0	07/09/2019
AO	▪ Replacement for the overlay flat cable connector part number and change in the insertion procedure. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.35.0	06/06/2019
AN	▪ Included support for new homologated memories ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.35.0	21/05/2019
AM	▪ Fixed external input I02, which stopped to work on previous version. ▪ Improvements on fast inputs and outputs. ▪ Improvements on the USB mass storage mounting system. ▪ Improvements in CANopen Manager performance. ▪ Improved EMC immunity level ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.32.0	09/05/2019
AL	▪ Included support for OPC UA protocol ▪ Included support for MSSQL_Client Function Block for accessing Microsoft databases. ▪ Included a fixed DNS Server configuration (8.8.8.8 and 8.8.4.4) ▪ Included support for Fast I/O (counters, external interrupts, PTO/PWM outputs, ...) ▪ Included support for CANopen Manager ▪ Included support for FAT32 LBA filesystem, used on big capacity USB mass storage devices ▪ Fixed a problem on function GetTimeZone, which could cause an exception leading the CPU to STOP. ▪ Improvements on GetDateAndTime and GetDayOfWeek	1.7.17.0	15/03/2019

	functions, which could cause peak on execution time. ▪ Fixed a problem on RS-485 serial driver, which could cause random errors on MODBUS RTU communication ▪ Fixed an RTD reading error that affected a small group of manufactured units ▪ Changed the value of some resistors and capacitors for standarization with other products (does not affects product's technical characteristics) ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.		
AK	▪ Change in manufacturing documentation to include additional information for soldering the CPU crystal. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.7.0	30/01/2019
AJ	▪ Changed to update status of digital input LEDs even with no application loaded ▪ Changed to blink 1x the DG LED when no application is loaded ▪ Fixed company name on "Target Vendor" field on gateway scan ▪ Removed log message generated when the system time is updated by SNTP (to avoid log being flooded with this message) ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.7.0	05/12/2018
AI	▪ Improved LED diagnostic indication ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.5.0	12/11/2018
AH	▪ Included support for USB mass storage devices ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.3.0	26/10/2018
AG	▪ Initial revision. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.40.	1.7.0.12	10/10/2018

2.1.4 BCS-XP340 – COMPACT PLC 16DI 16DO 5AI 4AO 2RTD WEB – BJ

REV	Description	Version	Date
BG	▪ Included a new command on System Web Page to reset the controller. ▪ Included support for Automation Composer persistent variables. ▪ Improvements in the System Web Page regarding USB 3G/4G modem usability and configuration. ▪ Fixed a login issue where access was denied due to a phantom active session (system indicated another user was logged in). ▪ Fixed a minor issue which could prevent USB WiFi adapters from connecting to SSIDs containing spaces. ▪ Fixed an issue where the USB 3G/4G modem would fail to reconnect following a communication failure with the SIM card. ▪ Fixed a problem where modifying the controller's system time could cause an overflow error in the OpenVPN connection. ▪ Fixed an OpenVPN configuration issue where the "Client-to-Client communication" feature could remain permanently enabled internally. ▪ Fixed an issue where the OpenVPN section in the System	1.14.106.0	03/08/2026

	Web Page could become inaccessible after removing a certificate and resetting the controller. ▪ Fixed a problem with gratuitous ARP which could prevent the Ethernet interface to communicate after a download changing Ethernet parameters and later connecting the cable. ▪ Fixed an issue where the System Web Page would time out during data transfers to USB mass storage devices. ▪ Fixed the validation of maximum number of characters for User and Password on System Web Page. ▪ Fixed an issue where the controller could fail to load the application from a USB mass storage device. ▪ Fixed a problem where FTP Server communication with the client would not restore automatically after a network interruption. ▪ Fixed an issue which could incorrectly print a "Power failure" log message during a power down. ▪ Changed system permissions to allow multiple Mastertool instances to connect simultaneously with read-write access. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
BF	▪ Updated the product label for UL Listed / Class I, Division 2, Groups A, B, C, D T4 (C1D2) certification compliance. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.86.0	22/05/2026
BE	▪ Support for BCS Tools 3.77. ▪ Included commands to enable/disable the USB through the System Web Page and application. ▪ Fixed a problem that could result in session timeout during the download of large projects. ▪ Fixed a problem where the “Execute” button of Network Sniffer could be blocked. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.86.0	04/03/2026
BD	▪ Optimization in the time of the product testing process. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.77.0	15/01/2026
BC	▪ Included support for the new parameter of Modbus Server drivers introduced on BCS Tools 3.75 which allows connections from other ethernet interfaces. ▪ Included a log message to inform lost of persistent/retain data after applying the settings via EasyConnection. ▪ Included a new feature to not load the Firewall rules when starting the controller with "dontbootapp". ▪ Fixed wrong number of BCS Tools Version in the Overview page when using BCS Tools 3.31. ▪ Fixed the Firewall issue where the user must add a rule for the HTTP port. ▪ Fixed issue where the System Web Page could receive an error pop-up when accessing the Operation Mode or Network tabs. ▪ Fixed a problem where the Watch Variables tab in System Web Page could not update. ▪ Fixed a potential issue where the Management tab may keep loading until to be reloaded. ▪ Fixed issue where the System State diagnostic shows “Stop” instead of “No Application” after a Reset Origin. ▪ Fixed an issue where the programming system displayed duplicate read-only client connections. ▪ Fixed a problem where “InvalidDutyCycle” status was not turning on when duty cycle set to 0%. ▪ General improvements in the Firewall web page usability.	1.14.77.0	10/11/2025

	▪ Improvements in the usability of import/export and configuration of Firewall feature. ▪ Removed the support for Operation Mode in the System Web Page (if configured as CANopen Slave, will return to PLC mode after the update). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
BB	▪ Fixed an issue introduced on version 1.12.24.0 where the controller could suffer a retentivity loss (retain data initialized) when powered off within a time window of 5 seconds after the application goes to RUN. ▪ Included support for version 5.0 of TP-Link UE300 USB-Ethernet adapter. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.12	10/06/2025
BA	▪ Included a new field in Overview tab of System Web Page informing the version of BCS Tools used by the application. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.7	03/04/2025
AZ	▪ Starting on this revision, the product becomes certified for UL Listed/Class I, Division 2, Groups A, B, C, D T4 (C1D2). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.6	20/02/2025
AY	▪ Fixed a problem where, in very rare occasions, the controller firmware could be corrupted after a power down, making it unable to boot again (bricked). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.6	16/12/2024
AX	▪ This new product revision refers to changes in internal documentation, in which similar products were changed, which did not affect this product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.4	12/11/2024
AW	▪ Support for BCS Tools 3.63 ▪ Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater) ▪ Improvements on System Web Page to enhance the reliability and usability. ▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using “enforced encryption” option. ▪ Fixed a problem where the internal RS-485 termination was always turned on, independently of the setting selected on CPU configuration screen. ▪ Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected. ▪ Fixed a problem on OpenVPN where it could incorrectly show a valid certificate as invalid. ▪ Fixed a problem on CAN interface which could cause communication errors with baudrate below 500kbit/s ▪ Fixed visual issues on Firewall section of System Web Page ▪ Fixed a problem on WebVisu introduced on version 1.14.20.0 which could cause a PLC reset when downloading the application ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.4	30/09/2024
AV	▪ Support for BCS Tools 3.61 ▪ Included support for FTP ▪ Improvements on System Web Page ▪ Changed the timezone of the Clock Setting to match the	1.14.20.0	08/02/2024

	user's computer . ▪ Fixed error that could make the firewall rules not to be applied when the selected interfaces was "any" ▪ Fixed a problem related to the Trend Graphic of the WebVisu where the controller could restart if the Application use it ▪ Improved firmware update time ▪ Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely. ▪ Limited the maximum number of OPC UA Server sessions to 50 ▪ Fixed a problem introduced on version 1.12.5.3 where the controller could potentially fail to restore retain data if turned off in a very specific and short time window during the initialization process (while the application is still in STOP). ▪ Fixed an issue that could make the current Application of the device not to be erased when transfering a new Application through the USB ▪ Fixed a problem where the Ethernet port could stop to work on high traffic scenario ▪ Fixed an incompatibility between USB Ethernet Adapter and VPN ▪ Fixed an issue where it was not possible to create a user (User Management) ▪ Fixed a problem introduced on version 1.12.24.0 which was making the CPU status on the treeview to become a red triangle when using BCS Tools version lower than 3.40 ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
AU	▪ Improvement in the product packaging process, where the connectors are now assembled instead of being delivered in a zip bag. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	19/12/2023
AT	▪ Improvement of the mecanic pieces of the product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	06/11/2023
AS	▪ Support for BCS Tools 3.52. ▪ New graphical design of System Web Page. ▪ Included support on System Web Page to set the PLC clock (time/date). ▪ Removed the requirement of PLC in STOP to perform a firmware update (now it will stop automatically). ▪ Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway. ▪ Included support to identify the device through the "wink" command on programming tool. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	05/09/2023
AR	▪ Fixed a problem introduced on the previous version, where the CAN Remote Mode stopped to work. ▪ Improvement on the MQTT to support multi-level topics wildcard ('#'). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.24.3	04/08/2023
AQ	▪ Support for BCS Tools 3.51. ▪ Included support to OpenVPN, Firewall and USB-Ethernet Adapter. ▪ Improvements on System Web Page: ▪ Included configuration for OpenVPN, Firewall and USB-	1.12.24.0	21/06/2023

	Ethernet Adapter. ▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer. ▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default. ▪ Optimization in the time required to perform the firmware update process. ▪ Fixed USB modem problem where the controller could suffer a memory leak when the modem reconnect multiple times. ▪ Fixed interoperability problem where the Ethernet/IP stop to communicate after inserting/configuring an USB modem. ▪ Fixed OPC UA interoperability with Kepware. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.		
AP	▪ Hardware improvement to suport new PHY component (shortage issue) ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.5	25/01/2023
AO	▪ Fixed a problem where the Ethernet port could eventually fail to communicate when connecting the controller directly to a computer (point-to-point). ▪ Fixed CANopen Slave problem where the controller could not resume the communication after a failure in the CAN bus. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.5	16/01/2023
AN	▪ Support for BCS Tools 3.40. ▪ Fixed a problem where 3G/4G Modem could fail to reconnect after a communication failure. ▪ Increased the storage capability for the source code, stored now on a 64MB space that is shared with application and Webvisu files. It is necessary to reboot the controller without application to make this new space available. The source code size verification (warning message) was updated accordingly on BCS Tools 3.40. ▪ Fixed possible issue where the Web Page turns unaccesible after using it for a very long time. ▪ Fixed the retain system to keep the values after a reboot caused by an internal software error. ▪ Fixed potential exception when an application is removed (reset origin). ▪ Included support for additional analog inputs using LibIntegratedIoExt introduced on BCS Tools 3.40. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.3	15/12/2022
AM	▪ Minor hardware changes in order to improve the product. ▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	06/12/2022
AL	▪ Improvement in the production process. Changed RTD settings in product testing. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	04/07/2022
AK	▪ Minor hardware adjustments to support a new alternative	1.11.10.0	27/05/2022

	part number (due to the shortage of electronic components). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.		
AJ	▪ Minor hardware adjustments to support a new alternative part number (due to the shortage of electronic components). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	04/03/2022
AI	▪ Changes in the source code shared with other products that doesn't affect this product behavior. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.10.0	18/01/2022
AH	▪ Small changes in the produtct's hardware to improve font startup behavior, making startup faster. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.2.0	27/10/2021
AG	▪ New format of firmware update file. This update requires the controller running on firmware version 1.9.29.0 or greater. ▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface. ▪ Included login mechanism for operation mode page in web interface. ▪ Included a new reset mechanism to solve connection failures of USB modem. ▪ Fixed misaligned memory exception due to IEC104 server mappings. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.2.0	26/07/2021
-	▪ Changed firmware update mechanism to include support for the new file format that will be introduced on upcoming versions. ▪ Included support for PROFINET Controller. ▪ Included support to CAN J1939. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.29.0	26/07/2021
AF	▪ Included support for *"number of connected clients"* diagnostic in status bar. To see this diagnostic, BCS Tools version 3.31 or greater is required. ▪ Removed the hidden page "getlogs" from the system web page to improve cyber security. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.25.0	13/01/2021
AE	▪ Change in the product hardware to support minimum operation temperature of - 20ºC. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.17.0	28/12/2020
AD	▪ Included support for USB WiFi adapters. ▪ Included suppport for additional USB modem devices: Huawei E3276 and E8372. ▪ Fixed a problem on the PTO fast output that could potentially turn on the next normal digital output. ▪ Fixed a problem that could lead to a negative offset on RTD reading. ▪ Fixed a problem where the digital input value was not updated on the execution of external interrupt task. ▪ Fixed a problem related to the system webpage cache. This eliminates the need of clearing the cache on browser side, which was previously required under some circumstances to show the page correctly. ▪ Updated the product label for compliance of the UL certification, File Number E496087. ▪ Included protectors for the product connectors.	1.9.17.0	18/08/2020

	▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.		
AC	▪ Improved performance (CPU clock increased by 85% with bootloader version 1.0.0.15 included on this version). ▪ Included support for IEC 104 Server protocol (requires BCS Tools 3.23 or greater) ▪ Included support to USB modem. ▪ Included support to TLS v1.2 and client certificate in the Function Block MQTT Client (the last one requires the BCS Tools 3.23 or greater). ▪ Improved immunity level of RTD inputs against external electromagnetic interferences. ▪ Fixed a problem that could eventually generate an error when downloading an application with Webvisu. ▪ Fixed a problem that could cause corruption of operating system in case of engergy interruption during a specific moment of power-up process, leading the controller to a permanent inoperative state. ▪ Fixed a problem on CANopen Remote I/O mode which could eventually prevent the controller from starting up. ▪ Improvements on CANopen Remote I/O mode. ▪ Improvements on serial communication. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.9.0	29/05/2020
AB	▪ Included support for USB Serial RS-232 converter ▪ Included support for the latest version of LibSQLClient library. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.11.0	09/01/2020
AA	▪ Initial revision. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.5.0	11/12/2019

2.1.5 BCS-XP350 – COMPACT PLC 16DI 16DO 5AI 2RTD MOTION – BJ

REV	Description	Version	Date
AU	▪ Included a new command on System Web Page to reset the controller. ▪ Included support for Automation Composer persistent variables. ▪ Improvements in the System Web Page regarding USB 3G/4G modem usability and configuration. ▪ Fixed a login issue where access was denied due to a phantom active session (system indicated another user was logged in). ▪ Fixed a minor issue which could prevent USB WiFi adapters from connecting to SSIDs containing spaces. ▪ Fixed an issue where the USB 3G/4G modem would fail to reconnect following a communication failure with the SIM card. ▪ Fixed a problem where modifying the controller's system time could cause an overflow error in the OpenVPN connection. ▪ Fixed an OpenVPN configuration issue where the "Client-to-Client communication" feature could remain permanently enabled internally. ▪ Fixed an issue where the OpenVPN section in the System	1.14.106.0	03/08/2026

	Web Page could become inaccessible after removing a certificate and resetting the controller. ▪ Fixed a problem with gratuitous ARP which could prevent the Ethernet interface to communicate after a download changing Ethernet parameters and later connecting the cable. ▪ Fixed an issue where the System Web Page would time out during data transfers to USB mass storage devices. ▪ Fixed the validation of maximum number of characters for User and Password on System Web Page. ▪ Fixed an issue where the controller could fail to load the application from a USB mass storage device. ▪ Fixed a problem where FTP Server communication with the client would not restore automatically after a network interruption. ▪ Fixed an issue which could incorrectly print a "Power failure" log message during a power down. ▪ Changed system permissions to allow multiple Mastertool instances to connect simultaneously with read-write access. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
AT	▪ Updated the product label for UL Listed / Class I, Division 2, Groups A, B, C, D T4 (C1D2) certification compliance. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.86.0	22/05/2026
AS	▪ Support for BCS Tools 3.77. ▪ Included commands to enable/disable the USB through the System Web Page and application. ▪ Fixed a problem that could result in session timeout during the download of large projects. ▪ Fixed a problem where the “Execute” button of Network Sniffer could be blocked. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.86.0	04/03/2026
AR	▪ Optimization in the time of the product testing process. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.77.0	15/01/2026
AQ	▪ Included support for the new parameter of Modbus Server drivers introduced on BCS Tools 3.75 which allows connections from other ethernet interfaces. ▪ Included a log message to inform lost of persistent/retain data after applying the settings via EasyConnection. ▪ Included a new feature to not load the Firewall rules when starting the controller with "dontbootapp". ▪ Fixed wrong number of BCS Tools Version in the Overview page when using BCS Tools 3.31. ▪ Fixed the Firewall issue where the user must add a rule for the HTTP port. ▪ Fixed issue where the System Web Page could receive an error pop-up when accessing the Operation Mode or Network tabs. ▪ Fixed a problem where the Watch Variables tab in System Web Page could not update. ▪ Fixed a potential issue where the Management tab may keep loading until to be reloaded. ▪ Fixed issue where the System State diagnostic shows “Stop” instead of “No Application” after a Reset Origin. ▪ Fixed an issue where the programming system displayed duplicate read-only client connections. ▪ Fixed a problem where “InvalidDutyCycle” status was not turning on when duty cycle set to 0%. ▪ General improvements in the Firewall web page usability.	1.14.77.0	10/11/2025

	▪ Improvements in the usability of import/export and configuration of Firewall feature. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
AP	▪ Fixed an issue introduced on version 1.12.24.0 where the controller could suffer a retentivity loss (retain data initialized) when powered off within a time window of 5 seconds after the application goes to RUN. ▪ Included support for version 5.0 of TP-Link UE300 USB-Ethernet adapter. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.12	10/06/2025
AO	▪ Included a new field in Overview tab of System Web Page informing the version of BCS Tools used by the application. • Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.7	03/04/2025
AN	• This new product revision refers to changes in internal documentation, in which similar products were changed, which did not affect this product. • Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.6	20/03/2025
AM	• Starting on this revision, the product becomes certified for UL Listed/Class I, Division 2, Groups A, B, C, D T4 (C1D2). • Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.6	20/02/2025
AL	▪ Updated the electrical circuit of the product's overlay, which is now fixed to the connector in a different way, providing additional security when fixing the overlay. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60. ▪ Updated the product label for compliance of the UL certification, File Number E496087.	1.14.36.6	23/01/2025
AK	▪ Fixed a problem where, in very rare occasions, the controller firmware could be corrupted after a power down, making it unable to boot again (bricked). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.6	16/12/2024
AJ	▪ Support for BCS Tools 3.63 ▪ Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater) ▪ Improvements on System Web Page to enhance the reliability and usability. ▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using “enforced encryption” option. ▪ Fixed a problem where the internal RS-485 termination was always turned on, independently of the setting selected on CPU configuration screen. ▪ Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected. ▪ Fixed a problem on OpenVPN where it could incorrectly show a valid certificate as invalid. ▪ Fixed a problem on CAN interface which could cause communication errors with baudrate below 500kbit/s ▪ Fixed visual issues on Firewall section of System Web Page ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.4	30/09/2024
AI	▪ Support for BCS Tools 3.61 ▪ Included support for FTP ▪ Improvements on System Web Page	1.14.20.0	08/02/2024

	▪ Changed the timezone of the Clock Setting to match the user's computer . ▪ Fixed error that could make the firewall rules not to be applied when the selected interfaces was "any" ▪ Improved firmware update time ▪ Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely. ▪ Limited the maximum number of OPC UA Server sessions to 50 ▪ Fixed a problem introduced on version 1.12.5.3 where the controller could potentially fail to restore retain data if turned off in a very specific and short time window during the initialization process (while the application is still in STOP). ▪ Fixed an issue that could make the current Application of the device not to be erased when transfering a new Application through the USB ▪ Fixed a problem where the Ethernet port could stop to work on high traffic scenario ▪ Fixed an incompatibility between USB Ethernet Adapter and VPN ▪ Fixed an issue where it was not possible to create a user (User Management) ▪ Fixed a problem introduced on version 1.12.24.0 which was making the CPU status on the treeview to become a red triangle when using BCS Tools version lower than 3.40 ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
AH	▪ Improvement in the product packaging process, where the connectors are now assembled instead of being delivered in a zip bag. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	19/12/2023
AG	▪ Improvement of the mecanic pieces of the product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	06/11/2023
AF	▪ Support for BCS Tools 3.52. ▪ New graphical design of System Web Page. ▪ Included support on System Web Page to set the PLC clock (time/date). ▪ Removed the requirement of PLC in STOP to perform a firmware update (now it will stop automatically). ▪ Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway. ▪ Included support to identify the device through the "wink" command on programming tool. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	05/09/2023
AE	▪ Improvement on the MQTT to support multi-level topics wildcard ('#'). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.24.3	04/08/2023
AD	▪ Support for BCS Tools 3.51. ▪ Included support to OpenVPN, Firewall and USB-Ethernet Adapter. ▪ Improvements on System Web Page: ▪ Included configuration for OpenVPN, Firewall and USB-Ethernet Adapter. ▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer.	1.12.24.0	21/06/2023

	▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default. ▪ Optimization in the time required to perform the firmware update process. ▪ Fixed USB modem problem where the controller could suffer a memory leak when the modem reconnect multiple times. ▪ Fixed interoperability problem where the Ethernet/IP stop to communicate after inserting/configuring an USB modem. ▪ Fixed OPC UA interoperability with Kepware. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.		
AC	▪ Hardware improvement to suport new PHY component (shortage issue) ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.5	25/01/2023
AB	▪ Fixed a problem where the Ethernet port could eventually fail to communicate when connecting the controller directly to a computer (point-to-point). ▪ Fixed CANopen Slave problem where the controller could not resume the communication after a failure in the CAN bus. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.5	16/01/2023
AA	▪ Initial revision. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.3	15/12/2022

2.2 Nexto XF

2.2.1 BCS-XF300 – CPU 2ETH,USB,RS485,CAN, 16DI 16DO - BJ

REV	Description	Version	Date
AE	▪ Included a new command on System Web Page to reset the controller. ▪ Fixed an issue where the controller could fail to load the application from a USB mass storage device. ▪ Fixed a potential controller reset caused by an exception when exposed to a network flood caused by Ethernet loopback. ▪ Fixed an issue where the PTO output could generate more pulses than configured with a specific combination of high frequencies and a low pulse count. ▪ Fixed an issue which could incorrectly print a "M4F failure" log message after restarting the controller. ▪ Changed system permissions to allow multiple Mastertool instances to connect simultaneously with read-write access. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.105.0	03/08/2026
AD	▪ Support for BCS Tools version 4.1.0. ▪ Included support for Firewall, OpenVPN, and FTP Server configurations via the System Web Page. ▪ Included support for DHCP. ▪ Included support for NIC Teaming. ▪ Included support for Switch mode with MRP and RSTP protocols for ring topologies. ▪ Included support for the Docker feature (available as a separate specific firmware file provided together with the standard	1.14.99.3	02/07/2026

	firmware). ▪ Included support for USB network devices, including 3G/4G modems, Ethernet adapters, and WiFi adapters (list of supported models informed on product documentation). ▪ Included support for Automation Composer persistent variables. ▪ Included diagnostic for hardware watchdog reset. ▪ Included support for integrated I/O hardware failure diagnostics. ▪ Improvements in the System Web Page network settings to prevent IP changes when the application utilizes paired modes (NIC Teaming or Switch). ▪ Improvements in the System Web Page for Memory Card management, now displaying unsupported format and uninserted card states. ▪ Performance improvements for standard digital outputs operating under low MainTask cycle times. ▪ Fixed an issue that occurred when generating over 17 million pulses on PTO fast outputs. ▪ Fixed a potential issue where the controller could restart when generating a small number of pulses at high frequencies via PTO. ▪ Fixed a login issue where access was denied due to a phantom active session (system indicated another user was logged in). ▪ Fixed a problem where serial communication via Function Blocks could be lost when operating at low baud rates (e.g., 2400 bps). ▪ Fixed an issue where the controller could cause serial interference to other devices on the RS-485 bus during initialization. ▪ Fixed an issue that could result in the loss of retain/persistent data when utilizing the maximum available memory. ▪ Fixed a problem where configuring the PTO with low frequencies could cause high jitter in the MainTask. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
AC	▪ Fixed an issue that could cause the controller to reboot after approximately 20 days of continuous operation when no device was connected to the USB port. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.88.4	01/06/2026
AB	▪ New version due to the shared software platform with XF300-B, with no impact on this model. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.88.3	22/05/2026
AA	▪ Initial revision ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.88.2	23/03/2026

2.2.2 BCS-XF300-B – CPU 2ETH,USB,RS485,CAN, 16DI 16DO BASIC - BJ

REV	Description	Version	Date
AE	▪ Included a new command on System Web Page to reset the controller. ▪ Fixed an issue where the controller could fail to load the application from a USB mass storage device. ▪ Fixed a potential controller reset caused by an exception when exposed to a network flood caused by Ethernet loopback. ▪ Fixed an issue where the PTO output could generate more pulses than configured with a specific combination of high frequencies and a low pulse count.	1.14.105.0	03/08/2026

	▪ Fixed an issue which could incorrectly print a "M4F failure" log message after restarting the controller. ▪ Changed system permissions to allow multiple Mastertool instances to connect simultaneously with read-write access. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
AD	▪ Support for BCS Tools version 4.1.0. ▪ Included support for Firewall, OpenVPN, and FTP Server configurations via the System Web Page. ▪ Included support for DHCP. ▪ Included support for NIC Teaming. ▪ Included support for Switch mode with RSTP protocol for ring topologies. ▪ Included support for USB network devices, including 3G/4G modems, Ethernet adapters, and WiFi adapters (list of supported models informed on product documentation). ▪ Included support for Automation Composer persistent variables. ▪ Included diagnostic for hardware watchdog reset. ▪ Included support for integrated I/O hardware failure diagnostics. ▪ Improvements in the System Web Page network settings to prevent IP changes when the application utilizes paired modes (NIC Teaming or Switch). ▪ Improvements in the System Web Page for Memory Card management, now displaying unsupported format and uninserted card states. ▪ Performance improvements for standard digital outputs operating under low MainTask cycle times. ▪ Fixed an issue that occurred when generating over 17 million pulses on PTO fast outputs. ▪ Fixed a potential issue where the controller could restart when generating a small number of pulses at high frequencies via PTO. ▪ Fixed a login issue where access was denied due to a phantom active session (system indicated another user was logged in). ▪ Fixed a problem where serial communication via Function Blocks could be lost when operating at low baud rates (e.g., 2400 bps). ▪ Fixed an issue where the controller could cause serial interference to other devices on the RS-485 bus during initialization. ▪ Fixed an issue that could result in the loss of retain/persistent data when utilizing the maximum available memory. ▪ Fixed a problem where configuring the PTO with low frequencies could cause high jitter in the MainTask. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.99.3	02/07/2026
AC	▪ Fixed an issue that could cause the controller to reboot after approximately 20 days of continuous operation when no device was connected to the USB port. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.88.4	01/06/2026
AB	▪ Fixed a problem where the integrated digital I/O was not working. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.88.3	22/05/2026
AA	▪ Initial revision ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.88.2	23/03/2026

2.2.3 BCS-XF315 – CPU 2ETH,USB,RS485,CAN, 16DI 16DO 10AI - BJ

REV	Description	Version	Date
AE	▪ Included a new command on System Web Page to reset the controller. ▪ Fixed an issue where the controller could fail to load the application from a USB mass storage device. ▪ Fixed a potential controller reset caused by an exception when exposed to a network flood caused by Ethernet loopback. ▪ Fixed an issue where the PTO output could generate more pulses than configured with a specific combination of high frequencies and a low pulse count. ▪ Fixed an issue which could incorrectly print a "M4F failure" log message after restarting the controller. ▪ Fixed an issue which prevents the controller to get in RUN due to an incorrect detection of an internal analog hardware failure. ▪ Changed system permissions to allow multiple Mastertool instances to connect simultaneously with read-write access. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.105.0	03/08/2026
AD	▪ Support for BCS Tools version 4.1.0. ▪ Included support for Firewall, OpenVPN, and FTP Server configurations via the System Web Page. ▪ Included support for DHCP. ▪ Included support for NIC Teaming. ▪ Included support for Switch mode with MRP and RSTP protocols for ring topologies. ▪ Included support for the Docker feature (available as a separate specific firmware file provided together with the standard firmware). ▪ Included support for USB network devices, including 3G/4G modems, Ethernet adapters, and WiFi adapters (list of supported models informed on product documentation). ▪ Included support for Automation Composer persistent variables. ▪ Included diagnostic for hardware watchdog reset. ▪ Included support for integrated I/O hardware failure diagnostics. ▪ Improvements in the System Web Page network settings to prevent IP changes when the application utilizes paired modes (NIC Teaming or Switch). ▪ Improvements in the System Web Page for Memory Card management, now displaying unsupported format and uninserted card states. ▪ Performance improvements for standard digital outputs operating under low MainTask cycle times. ▪ Fixed an issue that occurred when generating over 17 million pulses on PTO fast outputs. ▪ Fixed a potential issue where the controller could restart when generating a small number of pulses at high frequencies via PTO. ▪ Fixed a login issue where access was denied due to a phantom active session (system indicated another user was logged in). ▪ Fixed a problem where serial communication via Function Blocks could be lost when operating at low baud rates (e.g., 2400 bps). ▪ Fixed an issue where the controller could cause serial interference to other devices on the RS-485 bus during initialization. ▪ Fixed an issue that could result in the loss of retain/persistent data when utilizing the maximum available memory. ▪ Fixed a problem where configuring the PTO with low frequencies could cause high jitter in the MainTask.	1.14.99.3	02/07/2026

	▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
AC	▪ Fixed an issue that could cause the controller to reboot after approximately 20 days of continuous operation when no device was connected to the USB port. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.88.4	01/06/2026
AB	▪ New version due to the shared software platform with XF300-B, with no impact on this model. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.88.3	22/05/2026
AA	▪ Initial revision ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.88.2	23/03/2026

2.2.4 BCS-XF325 – CPU 2ETH,USB,RS485,CAN, 16DI 16DO 10AI 2AO - BJ

REV	Description	Version	Date
AG	▪ Included a new command on System Web Page to reset the controller. ▪ Fixed an issue where the controller could fail to load the application from a USB mass storage device. ▪ Fixed a potential controller reset caused by an exception when exposed to a network flood caused by Ethernet loopback. ▪ Fixed an issue where the PTO output could generate more pulses than configured with a specific combination of high frequencies and a low pulse count. ▪ Fixed an issue which could incorrectly print a "M4F failure" log message after restarting the controller. ▪ Changed system permissions to allow multiple Mastertool instances to connect simultaneously with read-write access. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.105.0	03/08/2026
AF	▪ Support for BCS Tools version 4.1.0. ▪ Included support for Firewall, OpenVPN, and FTP Server configurations via the System Web Page. ▪ Included support for DHCP. ▪ Included support for NIC Teaming. ▪ Included support for Switch mode with MRP and RSTP protocols for ring topologies. ▪ Included support for the Docker feature (available as a separate specific firmware file provided together with the standard firmware). ▪ Included support for USB network devices, including 3G/4G modems, Ethernet adapters, and WiFi adapters (list of supported models informed on product documentation). ▪ Included support for Automation Composer persistent variables. ▪ Included diagnostic for hardware watchdog reset. ▪ Included support for integrated I/O hardware failure diagnostics. ▪ Improvements in the System Web Page network settings to prevent IP changes when the application utilizes paired modes (NIC Teaming or Switch). ▪ Improvements in the System Web Page for Memory Card management, now displaying unsupported format and uninserted card states. ▪ Performance improvements for standard digital outputs operating under low MainTask cycle times. ▪ Fixed an issue that occurred when generating over 17 million pulses on PTO fast outputs.	1.14.99.3	02/07/2026

	▪ Fixed a potential issue where the controller could restart when generating a small number of pulses at high frequencies via PTO. ▪ Fixed a login issue where access was denied due to a phantom active session (system indicated another user was logged in). ▪ Fixed a problem where serial communication via Function Blocks could be lost when operating at low baud rates (e.g., 2400 bps). ▪ Fixed an issue where the controller could cause serial interference to other devices on the RS-485 bus during initialization. ▪ Fixed an issue that could result in the loss of retain/persistent data when utilizing the maximum available memory. ▪ Fixed a problem where configuring the PTO with low frequencies could cause high jitter in the MainTask. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
AE	▪ Fixed an issue that could cause the controller to reboot after approximately 20 days of continuous operation when no device was connected to the USB port. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.88.4	01/06/2026
AD	▪ New version due to the shared software platform with XF300-B, with no impact on this model. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.88.3	22/05/2026
AC	▪ Initial revision ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.88.2	23/03/2026

2.2.5 BCS-XF325-W – CPU 2ETH,USB,RS485,CAN, 16DI 16DO 10AI 2AO Webv - BJ

REV	Description	Version	Date
AE	▪ Included a new command on System Web Page to reset the controller. ▪ Fixed an issue where the controller could fail to load the application from a USB mass storage device. ▪ Fixed a potential controller reset caused by an exception when exposed to a network flood caused by Ethernet loopback. ▪ Fixed an issue where the PTO output could generate more pulses than configured with a specific combination of high frequencies and a low pulse count. ▪ Fixed an issue which could incorrectly print a "M4F failure" log message after restarting the controller. ▪ Changed system permissions to allow multiple Mastertool instances to connect simultaneously with read-write access. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.105.0	03/08/2026
AD	▪ Support for BCS Tools version 4.1.0. ▪ Included support for Firewall, OpenVPN, and FTP Server configurations via the System Web Page. ▪ Included support for DHCP. ▪ Included support for NIC Teaming. ▪ Included support for Switch mode with MRP and RSTP protocols for ring topologies. ▪ Included support for the Docker feature (available as a separate specific firmware file provided together with the standard firmware). ▪ Included support for USB network devices, including 3G/4G	1.14.99.3	02/07/2026

	modems, Ethernet adapters, and WiFi adapters (list of supported models informed on product documentation). ▪ Included support for Automation Composer persistent variables. ▪ Included diagnostic for hardware watchdog reset. ▪ Included support for integrated I/O hardware failure diagnostics. ▪ Improvements in the System Web Page network settings to prevent IP changes when the application utilizes paired modes (NIC Teaming or Switch). ▪ Improvements in the System Web Page for Memory Card management, now displaying unsupported format and uninserted card states. ▪ Performance improvements for standard digital outputs operating under low MainTask cycle times. ▪ Fixed an issue that occurred when generating over 17 million pulses on PTO fast outputs. ▪ Fixed a problem where the controller would not apply the application-configured timezone when SNTP was disabled. ▪ Fixed a potential issue where the controller could restart when generating a small number of pulses at high frequencies via PTO. ▪ Fixed a login issue where access was denied due to a phantom active session (system indicated another user was logged in). ▪ Fixed a problem where serial communication via Function Blocks could be lost when operating at low baud rates (e.g., 2400 bps). ▪ Fixed an issue where the controller could cause serial interference to other devices on the RS-485 bus during initialization. ▪ Fixed an issue that could result in the loss of retain/persistent data when utilizing the maximum available memory. ▪ Fixed a problem where configuring the PTO with low frequencies could cause high jitter in the MainTask. ▪ Fixed an issue where the Webvisu Trend element could return an error after extended periods of operation. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
AC	▪ Fixed an issue that could cause the controller to reboot after approximately 20 days of continuous operation when no device was connected to the USB port. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.88.4	01/06/2026
AB	▪ New version due to the shared software platform with XF300-B, with no impact on this model. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.88.3	22/05/2026
AA	▪ Initial revision ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.88.2	23/03/2026

2.3 Nexto NX

2.3.1 BCS-NX3003 – CPU 1 ETH, 1 SERIAL, 14 DI, 10 DO AND PSU 10W – BJ

REV	Description	Version	Date
BC	▪ Support for BCS Tools 3.77. ▪ Included a log message to inform lost of persistent/retain data after applying the settings via EasyConnection. ▪ Fixed a problem that could result in session timeout during	1.14.86.0	04/03/2026

	the download of large projects. ▪ Fixed issue where the System State diagnostic shows “Stop” instead of “No Application” after a Reset Origin. ▪ Fixed an issue where the programming system displayed duplicate read-only client connections. ▪ Fixed an issue where the state of digital inputs on I/O module display would not update until the CPU starts to configure it. ▪ Fixed wrong number of BCS Tools Version in the Overview page when using BCS Tools 3.31. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
BB	▪ Fixed an issue introduced on version 1.12.23.0 where the controller could suffer a retentivity loss (retain data initialized) when powered off within a time window of 5 seconds after the application goes to RUN. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.12	10/06/2025
BA	▪ Included a new field in Overview tab of System Web Page informing the version of BCS Tools used by the application. ▪ Included support to a new part number of LCD display (no change in visual and/or functionality). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.7	03/04/2025
AZ	▪ Support for BCS Tools 3.63 ▪ Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater) ▪ Improvements on System Web Page to enhance the reliability and usability. ▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using “enforced encryption” option. ▪ Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.2	30/09/2024

AY	▪ Support for BCS Tools 3.61
	▪ Improvements on System Web Page
	  ▪ Changed the timezone of the Clock Setting to match the user’s computer .
	  ▪ Fixed error that could make the firewall rules not to be applied when the selected interfaces was “any”
	▪ Fixed a problem related to the Trend Graphic of the WebVisu where the controller could restart if the Application use it
	▪ Improved firmware update time
	▪ Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely.
	▪ Limited the maximum number of OPC UA Server sessions to 50
	▪ Fixed error that could generate an exception when downloaded an Application with EtherCAT or PROFINET
	▪ Fixed a problem introduced on version 1.12.5.3 where the controller could potentially fail to restore retain data if turned off in a very specific and short time window during the initialization process (while the application is still in STOP).
	▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.
		1.14.20.0	08/02/2024

AX	▪ Support for BCS Tools 3.52	1.12.29.0	05/09/2023

	▪ New graphical design of System Web Page ▪ Included support on System Web Page to set the PLC clock (time/date) ▪ Removed the requirement of PLC in STOP to perform a firmware update (now it will stop automatically) ▪ Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway ▪ Included support to identify the device through the "wink" command on programming tool. ▪ Improvement on the MQTT to support multi-level topics wildcard ('#'). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.		
AW	▪ Support for BCS Tools 3.51. ▪ Improvements on System Web Page: ▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer. ▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default. ▪ Optimization in the time required to perform the firmware update process. ▪ Fixed OPC UA interoperability with Kepware. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.23.0	22/06/2023
AV	▪ No modification in the product (production documentation changed). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.3	17/05/20203
AU	▪ Hardware improvement to suport new PHY component (shortage issue) ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.3	05/04/2023
AT	▪ Fixed hardware problem where the power source does not turn on when the bus is with full load. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.3	24/01/2023
AS	▪ Support for BCS Tools 3.40. ▪ Fixed possible issue where the Web Page turns unaccesible after using it for a very long time. ▪ Fixed the retain system to keep the values after a reboot caused by an internal software error. ▪ Fixed potential exception when an application is removed (reset origin). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.3	15/12/2022
AR	▪ In this revision there were only internal changes in the documentation. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.2.0	06/09/2022
AQ	▪ New format of firmware update file. This update requires the controller running on firmware version 1.9.29.0 or greater. ▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.2.0	26/07/2021
-	▪ Changed firmware update mechanism to include support for the new file format that will be introduced on upcoming versions. ▪ Improvements in "one touch diag" feature.	1.9.29.0	26/07/2021

	▪ Included support for PROFINET Controller. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.		
AP	▪ Included support for *"number of connected clients"* diagnostic in status bar. To see this diagnostic, BCS Tools version 3.31 or greater is required. ▪ Removed the hidden page "getlogs" from the system web page to improve cyber security. ▪ Fixed a problem related to the system webpage cache. This eliminates the need of clearing the cache on browser side, which was previously required under some circumstances to show the page correctly. ▪ Fixed a problem where the digital input value was not updated on the execution of external interrupt task. ▪ Fixed a problem of delay in PTO softstop command when using LibMachineOEM.LABELING_MACHINE function block. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.25.0	13/01/2021
AO	▪ Included support to TLS v1.2 and client certificate in the Function Block MQTT Client (the last one requires the BCS Tools 3.23 or greater). ▪ Fixed a problem that could cause corruption of operating system in case of engergy interruption during a specific moment of power-up process, leading the controller to a permanent inoperative state. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.8.0	09/11//2020
AN	▪ Included protectors for the product connectors. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.11.0	24/09/2020
AM	▪ Included support for MQTT Client Function Block (requires BCS Tools 3.19 or greater). ▪ Included support for the latest version of LibSQLClient library. ▪ Included support for Ethernet/IP Adapter and Scanner. ▪ Included support for visualization of the integrated I/O by LCD (menu Hardware). ▪ Included support for labeling function of the LibMachineOEM library (PTO). ▪ Improvements in the performance of integrated fast I/O. ▪ Fixed EasyConnection behavior, where the application was not being erased after applying the new IP adress, resulting on returning to the IP address set by the application. ▪ Fixed maximum number of ARTI/OPC DA connections from 4 to 8. ▪ General fixes on User Rights Management, which was not working properly on version 1.7.x.x. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.11.0	27/01/2020
AL	▪ Improvements in the performance of integrated fast I/O. ▪ Improvements in the performance of serial communication. ▪ Improvements in CPU diagnostic messages. ▪ Included watchdog reset diagnostic on the CPU display. ▪ Changed bootloader from version 1.0.0.13 to 1.0.0.14 to fix an issue where the CPU could activate (drive) the RS-485 bus during the power-up. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.36.0	11/06/2019
AK	▪ Initial revision. ▪ Info: This version was built with CODESYS Control Runtime	1.7.20.0	01/04/2019

	Toolkit 3.5.12.60.		

2.3.2 BCS-NX3004 – CPU 1 ETH, 1 SERIAL PORT – BJ

REV	Description	Version	Date
BA	▪ Support for BCS Tools 3.77. ▪ Included a log message to inform lost of persistent/retain data after applying the settings via EasyConnection. ▪ Fixed a problem that could result in session timeout during the download of large projects. ▪ Fixed issue where the System State diagnostic shows “Stop” instead of “No Application” after a Reset Origin. ▪ Fixed an issue where the programming system displayed duplicate read-only client connections. ▪ Fixed an issue where the Power Failure log could not appear. ▪ Fixed an issue where the state of digital inputs on I/O module display would not update until the CPU starts to configure it.Fixed wrong number of BCS Tools Version in the Overview page when using BCS Tools 3.31. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.86.0	04/03/2026
AZ	▪ Included a new field in Overview tab of System Web Page informing the version of BCS Tools used by the application. ▪ Included support to a new part number of LCD display (no change in visual and/or functionality). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.7	03/04/2025
AY	▪ Support for BCS Tools 3.63 ▪ Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater) ▪ Improvements on System Web Page to enhance the reliability and usability. ▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using “enforced encryption” option. ▪ Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.2	30/09/2024

AX	▪ Support for BCS Tools 3.61
	▪ Improvements on System Web Page
	  ▪ Changed the timezone of the Clock Setting to match the user’s computer .
	  ▪ Fixed error that could make the firewall rules not to be applied when the selected interfaces was “any”
	  ▪ Improved firmware update time
	▪ Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely.
	▪ Limited the maximum number of OPC UA Server sessions to 50
	▪ Fixed error that could generate an exception when downloaded an Application with EtherCAT or PROFINET
	▪ Fixed a problem introduced on version 1.12.5.3 where the controller could potentially fail to restore retain data if turned off in a very specific and short time window during the initialization process (while the application is still in STOP).
	▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.
		1.14.20.0	08/02/2024

AW	▪ Support for BCS Tools 3.52 ▪ New graphical design of System Web Page ▪ Included support on System Web Page to set the PLC clock	1.12.29.0	05/09/2023

	(time/date) ▪ Removed the requirement of PLC in STOP to perform a firmware update (now it will stop automatically) ▪ Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway ▪ Included support to identify the device through the "wink" command on programming tool. ▪ Improvement on the MQTT to support multi-level topics wildcard ('#').		
AV	▪ Support for BCS Tools 3.51. ▪ Improvements on System Web Page: ▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer. ▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default. ▪ Optimization in the time required to perform the firmware update process. ▪ Fixed OPC UA interoperability with Kepware. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.23.0	22/06/2023
AU	▪ Fixed a problem introduced on the previous version that was making the retain/persistent variables not to be saved at the power down. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.6	24/01/2023
AT	▪ Support for BCS Tools 3.40. ▪ Fixed possible issue where the Web Page turns unaccesible after using it for a very long time. ▪ Fixed the retain system to keep the values after a reboot caused by an internal software error. ▪ Fixed potential exception when an application is removed (reset origin). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.3	15/12/2022
AS	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.2.0	01/11/2022
AR	▪ New format of firmware update file. This update requires the controller running on firmware version 1.9.29.0 or greater. ▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface. ▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.2.0	26/07/2021
-	▪ Changed firmware update mechanism to include support for the new file format that will be introduced on upcoming versions. ▪ Improvements in "one touch diag" feature. ▪ Included support for PROFINET Controller. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.29.0	26/07/2021
AQ	▪ Included support for *"number of connected clients"* diagnostic in status bar. To see this diagnostic, BCS Tools version 3.31 or greater is required. ▪ Removed the hidden page "getlogs" from the system web page to improve cyber security.	1.9.25.0	13/01/2021

	▪ Fixed a problem related to the system webpage cache. This eliminates the need of clearing the cache on browser side, which was previously required under some circumstances to show the page correctly. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.		
AP	▪ Included support to TLS v1.2 and client certificate in the Function Block MQTT Client (the last one requires the BCS Tools 3.23 or greater). ▪ Fixed a problem that could cause corruption of operating system in case of engergy interruption during a specific moment of power-up process, leading the controller to a permanent inoperative state. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.8.0	09/11/2020
AO	▪ Included protectors for the product connectors. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.11.0	24/09/2020
AN	▪ Included support for MQTT Client Function Block (requires BCS Tools 3.19 or greater). ▪ Included support for the latest version of LibSQLClient library. ▪ Included support for Ethernet/IP Adapter and Scanner. ▪ Fixed an error that could occur when performing a specific sequence of modification of the size of Retain/Persistent %Q area. ▪ Fixed EasyConnection behavior, where the application was not being erased after applying the new IP adress, resulting on returning to the IP address set by the application. ▪ Fixed maximum number of ARTI/OPC DA connections from 4 to 8. ▪ General fixes on User Rights Management, which was not working properly on version 1.7.x.x. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.11.0	27/01/2020
AM	▪ Included support for OPC UA protocol ▪ Included support for MSSQL_Client Function Block for accessing Microsoft databases. ▪ Included a fixed DNS Server configuration (8.8.8.8 and 8.8.4.4) ▪ Fixed the position of F symbol (force) on LCD ▪ Improvements on Easy Connection feature ▪ Fixed a problem on function GetTimeZone, which could cause an exception leading the CPU to STOP. ▪ Improvements on GetDateAndTime and GetDayOfWeek functions, which could cause peak on execution time. ▪ Removed log message generated when the system time is updated by SNTP (to avoid log being flooded with this message) ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.17.0	11/03/2019
AL	▪ Improvements on factory test system ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.	1.6.2.0	30/11/2018
AK	▪ This revision was skipped due to integration of internal documentation	-	-
AJ	▪ Included support for NX9020 rack. ▪ Enhancements in SNMP protocol ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.	1.6.2.0	08/02/2018
AI	▪ Added new configuration options for MODBUS Symbolic mode (Server and Slave); ▪ Added return of Easy Execution command execution status; ▪ Including support for new Nexto Jet solution modules; ▪ Improved Ethernet IP protocol; ▪ Improved support for NVLs.	1.6.1.0	02/10/2017

	▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.		
AH	▪ Included support to clock settings. ▪ Included support to easy connection. ▪ Included support to dynamic IP. ▪ Included support to mixed analog module NJ6005. ▪ Homologation of alternative part numbers for components used on this product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.	1.6.0.5	06/01/2017
AG	▪ Enhancements in performance of the modules hot-swap circuit.	1.5.1.2	09/11/2016
AF	▪ New revision of the printed circuit board. ▪ Changed the product label to comply with the new revision of CE directive.	1.5.1.2	21/06/2016
AE	▪ Homologation of alternative part numbers for components used on this product.	1.5.1.2	25/05/2016
AD	▪ Included the support for flexibility of retain/persistent memory areas. ▪ Included the support for Nexto Jet solution. ▪ Improvements on the presentation of module Tag on diagnostic web page.	1.5.1.2	18/12/2015
AC	▪ Included the support for SNMP (agent) protocol supporting MIBII and Private. ▪ Improvements on the UCP power down process and on data retentivity.	1.5.0.21	01/09/2015
AB	▪ Improvements on the handling of data retentivity.	1.5.0.18	15/06/2015
AA	▪ Initial revision.	1.5.0.16	06/0652015

2.3.3 BCS-NX3005 – CPU 1 ETH, 1 SERIAL PORT , WEB - BJ

REV	Description	Version	Date
AW	▪ Support for BCS Tools 3.77. ▪ Included a log message to inform lost of persistent/retain data after applying the settings via EasyConnection. ▪ Fixed a problem that could result in session timeout during the download of large projects. ▪ Fixed issue where the System State diagnostic shows “Stop” instead of “No Application” after a Reset Origin. ▪ Fixed an issue where the programming system displayed duplicate read-only client connections. ▪ Fixed an issue where the Power Failure log could not appear. ▪ Fixed an issue where the state of digital inputs on I/O module display would not update until the CPU starts to configure it. ▪ Fixed wrong number of BCS Tools Version in the Overview page when using BCS Tools 3.31. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.86.0	04/03/2026
AV	▪ Included a new field in Overview tab of System Web Page informing the version of BCS Tools used by the application. ▪ Included support to a new part number of LCD display (no change in visual and/or functionality). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.7	03/04/2025
AU	▪ Support for BCS Tools 3.63 ▪ Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater) ▪ Improvements on System Web Page to enhance the reliability and usability. ▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using “enforced encryption”	1.14.36.2	30/09/2024

	option. ▪ Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected. ▪ Fixed a problem on WebVisu introduced on version 1.14.20.0 which could cause a PLC reset when downloading the application ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
AT	▪ Support for BCS Tools 3.61 ▪ Improvements on System Web Page ▪ Changed the timezone of the Clock Setting to match the user's computer . ▪ Fixed error that could make the firewall rules not to be applied when the selected interfaces was "any" ▪ Fixed a problem related to the Trend Graphic of the WebVisu where the controller could restart if the Application use it ▪ Improved firmware update time ▪ Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely. ▪ Limited the maximum number of OPC UA Server sessions to 50 ▪ Fixed error that could generate an exception when downloaded an Application with EtherCAT or PROFINET ▪ Fixed a problem introduced on version 1.12.5.3 where the controller could potentially fail to restore retain data if turned off in a very specific and short time window during the initialization process (while the application is still in STOP). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.20.0	08/02/2024
AS	▪ Support for BCS Tools 3.52 ▪ New graphical design of System Web Page ▪ Included support on System Web Page to set the PLC clock (time/date) ▪ Removed the requirement of PLC in STOP to perform a firmware update (now it will stop automatically) ▪ Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway ▪ Included support to identify the device through the "wink" command on programming tool. ▪ Improvement on the MQTT to support multi-level topics wildcard ('#'). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	05/09/2023
AR	▪ Support for BCS Tools 3.51. ▪ Improvements on System Web Page: ▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer. ▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default. ▪ Optimization in the time required to perform the firmware update process. ▪ Fixed OPC UA interoperability with Kepware. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.23.0	22/06/2023
AQ	▪ Fixed a problem introduced on the previous version that was making the retain/persistent variables not to be saved at the power down. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.5.6	24/01/2023
AP	▪ Support for BCS Tools 3.40. ▪ Fixed possible issue where the Web Page turns unaccesible after	1.12.5.3	15/12/2022

	using it for a very long time. ▪ Fixed the retain system to keep the values after a reboot caused by an internal software error. ▪ Fixed potential exception when an application is removed (reset origin). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.		
AO	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.2.0	03/11/2022
AN	▪ New format of firmware update file. This update requires the controller running on firmware version 1.9.29.0 or greater. ▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.11.2.0	26/07/2021
-	▪ Changed firmware update mechanism to include support for the new file format that will be introduced on upcoming versions. ▪ Improvements in “one touch diag” feature. ▪ Included support for PROFINET Controller. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.29.0	26/07/2021
AM	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.25.0	26/07/2021
AL	▪ Included support for *“number of connected clients”* diagnostic in status bar. To see this diagnostic, BCS Tools version 3.31 or greater is required. ▪ Removed the hidden page “getlogs” from the system web page to improve cyber security. ▪ Fixed a problem related to the system webpage cache. This eliminates the need of clearing the cache on browser side, which was previously required under some circumstances to show the page correctly. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.25.0	13/01/2021
AK	▪ Included support to TLS v1.2 and client certificate in the Function Block MQTT Client (the last one requires the BCS Tools 3.23 or greater). ▪ Fixed a problem that could cause corruption of operating system in case of engergy interruption during a specific moment of power-up process, leading the controller to a permanent inoperative state. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.8.0	09/11/2020
AJ	▪ Included protectors for the product connectors. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.11.0	24/09/2020
AI	▪ Included support for MQTT Client Function Block (requires BCS Tools 3.19 or greater). ▪ Included support for the latest version of LibSQLClient library. ▪ Fixed an error that could occur when performing a specific sequence of modification of the size of Retain/Persistent %Q area. ▪ Fixed EasyConnection behavior, where the application was not being erased after applying the new IP adress, resulting on	1.8.11.0	27/01/2020

	returning to the IP address set by the application. ▪ Fixed maximum number of ARTI/OPC DA connections from 4 to 8. ▪ General fixes on User Rights Management, which was not working properly on version 1.7.x.x. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.		
AH	▪ Included support for OPC UA protocol ▪ Included support for MSSQL_Client Function Block for accessing Microsoft databases. ▪ Included a fixed DNS Server configuration (8.8.8.8 and 8.8.4.4) ▪ Fixed the position of F symbol (force) on LCD ▪ Improvements on Easy Connection feature ▪ Fixed a problem on function GetTimeZone, which could cause an exception leading the CPU to STOP. ▪ Improvements on GetDateAndTime and GetDayOfWeek functions, which could cause peak on execution time. ▪ Removed log message generated when the system time is updated by SNTP (to avoid log being flooded with this message) ▪ Improvements on SNMP protocol ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.40.	1.7.17.0	11/03/2019
AG	▪ Improvements on factory test system ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.	1.6.2.0	30/11/2018
AF	▪ Updated the product label for compliance of the UL certification, File Number E496087. ▪ Included the licence IEC-104 in the BOM of the product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.	1.6.2.0	03/09/2018
AE	▪ Included support for NX9020 rack. ▪ Enhancements in SNMP protocol ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.	1.6.2.0	08/02/2018
AD	▪ Added new configuration options for MODBUS Symbolic mode (Server and Slave); ▪ Added return of Easy Execution command execution status; ▪ Including support for new Nexto Jet solution modules; ▪ Improved Ethernet IP protocol; ▪ Improved support for NVLs. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.	1.6.1.0	02/10/2017
AC	▪ Included support to IEC104 server. ▪ Included support to mixed analog module NJ6005. ▪ Homologation of alternative part numbers for components used on this product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.	1.6.0.13	06/01/2017
AB	▪ Enhancements in performance of the modules hot-swap circuit. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.	1.6.0.9	09/11/2016
AA	▪ Initial revision. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.	1.6.0.9	08/09/2016

2.3.4 BCS-NX3008 – CPU 3 ETH, 1 USB, 1 SERIAL, 1 CAN, WEB - BJ

REV	Description	Version	Date
AX	▪ Included a new command on System Web Page to reset the controller.	1.14.105.0	03/08/2026

	▪ Included support for Automation Composer persistent variables. ▪ Improvements in Docker usability, adding support for bridge network mode and the ability to bypass container execution during startup (by holding the device button while booting). ▪ Improvements in the System Web Page regarding USB 3G/4G modem usability and configuration. ▪ Improvements in the System Web Page for Memory Card management, now displaying unsupported format and uninserted card states. ▪ Improvements in the System Web Page network settings to prevent IP changes when the NET is used in NIC Teaming or Switch mode. ▪ Fixed a login issue where access was denied due to a phantom active session (system indicated another user was logged in). ▪ Fixed a potential issue where the RSTP protocol might fail to configure correctly after a power cycle. ▪ Fixed an issue where the MRP protocol would fail to start if the controller was initialized without active interface connections. ▪ Fixed a minor issue which could prevent USB WiFi adapters from connecting to SSIDs containing spaces. ▪ Fixed an issue where the USB 3G/4G modem would fail to reconnect following a communication failure with the SIM card. ▪ Fixed a problem where modifying the controller's system time could cause an overflow error in the OpenVPN connection. ▪ Fixed an OpenVPN configuration issue where the "Client-to-Client communication" feature could remain permanently enabled internally. ▪ Fixed an issue where the OpenVPN section in the System Web Page could become inaccessible after removing a certificate and resetting the controller. ▪ Fixed a problem with gratuitous ARP which could prevent the Ethernet interface to communicate after a download changing Ethernet parameters and later connecting the cable. ▪ Fixed an issue where the System Web Page would time out during data transfers to USB mass storage devices. ▪ Fixed a problem where the controller could trigger a hardware watchdog reset after extended periods of operation with NIC Teaming configured and no active links on the paired interfaces. ▪ Fixed the validation of maximum number of characters for User and Password on System Web Page. ▪ Fixed an issue where the controller could randomly halt IEC tasks and disable tree view objects when multiple read-only instances of Mastertool were connected. ▪ Fixed an issue where the OTD function to not load the application would not work if pressed right after the power off. ▪ Fixed a problem where RS-485 serial communication configured for 7 data bits would incorrectly process 8 bits. ▪ Fixed an issue where the controller could fail to load the application from a USB mass storage device. ▪ Fixed a problem where FTP Server communication with the client would not restore automatically after a network interruption. ▪ Changed the System Web Page to restore the display of the Auxiliary Processor Version. ▪ Changed the NET diagnostics behavior to consider the internal network bridge when operating in Switch mode. ▪ Changed system permissions to allow multiple Mastertool instances to connect simultaneously with read-write access. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
AW	▪ Fixed a problem introduced on version 1.14.86.1 where IEC 104 Server has stopped to report events.	1.14.86.6	14/04/2026

	▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
AV	▪ Support for BCS Tools 3.77. ▪ Included commands to enable/disable the Memory Card and USB through the System Web Page and application. ▪ Included Memory Card management on System Web Page with support for unmounting and formatting. ▪ Included a log message to inform lost of persistent/retain data after applying the settings via EasyConnection. ▪ Included support for the new parameter of Modbus Server drivers introduced on BCS Tools 3.75 which allows connections from other ethernet interfaces. ▪ Discontinued the feature of copying the Project from/to CPU/Memory Card (removed the Memory Card section from the Informative and Configuration Menu on CPU display). ▪ Fixed a problem that could result in session timeout during the download of large projects. ▪ Fixed issue where the System State diagnostic shows “Stop” instead of “No Application” after a Reset Origin. ▪ Fixed an issue where the programming system displayed duplicate read-only client connections. ▪ Fixed an issue where the Power Failure log could not appear. ▪ Improvements in the Firewall diagnostic when importing an invalid configuration. ▪ Included a new feature to not load the Firewall rules when starting the controller with button pressed ▪ Fixed the Firewall issue where the user must add a rule for the HTTP port. ▪ Fixed wrong number of BCS Tools Version in the Overview page when using BCS Tools 3.31. ▪ Fixed a potential exception when using the USB Serial Converter after a long time. ▪ Fixed a problem where the Retain variables keep their values after a download. ▪ Fixed a potential exception during project download with NIC Teaming. ▪ Improvement in the CPU internal clock to allow year until 2099. ▪ General improvements in the Firewall web page usability. ▪ Improvements in the usability of import/export and configuration of Firewall feature. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.86.1	04/03/2026
AU	▪ Improved management of the resources (CPU and memory) used by Docker, protecting the PLC application from potential container execution failures. ▪ Optimizations on the Operating System which allows the Docker Engine to run more efficiently, resulting in better container execution performance. ▪ Added support for using external storage devices with Docker, like Memory Card and USB. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.9	14/08/2025
AT	▪ Included a new field in Overview tab of System Web Page informing the version of BCS Tools used by the application. ▪ Included support to a new part number of LCD display (no change in visual and/or functionality). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.36.7	03/04/2025
AS	▪ Support for BCS Tools 3.63 ▪ Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater)	1.14.36.4	30/09/2024

	▪ Included support for NX8000 (mandatory to check the conditions on User Manual before using it) ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
AR	▪ Included bootloader version 1.0.5.0, which fixes a power-on issue mentioned below. The bootloader is now included inside the firmware image file, and it will be updated automatically during the firmware update process. **ATTENTION**: this automatic update requires the controller to be running with version 1.14.34.2 or greater. So, if the firmware update is being performed on a controller that is running an older version, it will be necessary to perform the update procedure twice (to the same version) to have the bootloader updated. ▪ Fixed a problem where the CPU could potentially fail to start after a power-on. ▪ Fixed a problem where the firmware version could not be informed correctly (zero). ▪ Fixed a problem with NET Redundant mode which could cause an exception. ▪ Fixed a problem that could incorrectly produce error log messages related to the internal processor temperature. ▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using “enforced encryption” option. ▪ Improved stability of CAN and RS-485 communication, specially when working simultaneously. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.34.2	25/07/2024
AQ	▪ Fixed the CAN interface, which was not working properly on previous versions. ▪ Fixed a problem where the internal RS-485 termination was always turned on, independently of the setting selected on CPU configuration screen. ▪ Improvements on System Web Page to enhance the reliability and usability. ▪ Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected. ▪ Fixed a problem on Docker where the CPU could take too long to change from STOP to RUN after a startup. ▪ Fixed the DG LED behaviour when CPU has no application. ▪ Fixed NET3 byOperatingState diagnostic when configured as a redundant pair of NET2 (NIC Teaming). ▪ Fixed a problem where the OTD button could present a slow response. ▪ Fixed a problem on OpenVPN where it could incorrectly show a valid certificate as invalid. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.28.0	02/05/2024

AP	▪ Support for BCS Tools 3.61
	▪ Included support for Docker feature
	▪ Included support for FTP
	▪ Improvements on System Web Page
	  ▪ Changed the timezone of the Clock Setting to match the user’s computer .
	  ▪ Fixed error that could make the firewall rules not to be applied when the selected interfaces was “any”
	▪ Fixed a problem related to the Trend Graphic of the WebVisu where the controller could restart if the Application use it
	▪ Improved firmware update time
	▪ Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely.
	▪ Fixed a problem on RS-485 termination where the setting on CPU configuration was behaving with a inverted logic
		1.14.20.0	08/02/2024

	▪ Fixed the red triangle on NET3 connector in the BCS Tools treeview with the controller in NIC Teaming mode ▪ Limited the maximum number of OPC UA Server sessions to 50 ▪ Fixed error that could generate an exception when downloaded an Application with EtherCAT or PROFINET ▪ Fixed a problem where the controller could potentially fail to restore retain data if turned off in a very specific and short time window during the initialization process (while the application is still in STOP). ▪ Fixed an issue that could make the current Application of the device not to be erased when transfering a new Application through the USB ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
AN	▪ Support for BCS Tools 3.52 ▪ New graphical design of System Web Page ▪ Included support on System Web Page to set the PLC clock (time/date) ▪ Removed the requirement of PLC in STOP to perform a firmware update (now it will stop automatically) ▪ Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway ▪ Included support to identify the device through the "wink" command on programming tool. ▪ Improvement on the MQTT to support multi-level topics wildcard ('#'). ▪ Included support for IEC 104 Server protocol (requires BCS Tools 3.52 or greater). ▪ Included support to SNMP ▪ Fixed a problem that could potentially make the CPU fail to start after a power-on ▪ Limited the speed of NET2 and NET3 to 10/100Mbps ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.29.0	05/09/2023
AM	▪ Improved capacity of the integrated power supply to withstand modules in-rush current on the power-on of a full bus configuration. ▪ Changed the product label due to certification cUL File Number E496087, where the cUL logo was included. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.24.0	21/07/2023
AL	▪ Support for BCS Tools 3.51. ▪ Improvements on System Web Page: ▪ Included configuration for OpenVPN, Firewall and USB-Ethernet Adapter. ▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer. ▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default. ▪ Optimization in the time required to perform the firmware update process. ▪ Fixed USB modem problem where the controller could suffer a memory leak when the modem reconnect multiple times. ▪ Fixed interoperability problem where the Ethernet/IP stop to communicate after inserting/configuring an USB modem. ▪ Fixed OPC UA interoperability with Kepware. ▪ Improvements in OpenVPN and Firewall. ▪ Support to the RTL8188EU WiFi adapter. General improvements in the system stability.	1.12.24.0	21/06/2023

	Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.		
AK	▪ Fixed an issue where the CPU would eventually not enter in RUN after a power-on. ▪ Improved the System Web Page to support only one login to the Management tab instead of each feature with separate credentials. Also, a new System tab is available, containing the firmware update and buttons to access the system logs. ▪ Fixed OpenVPN problem that could cause a memory leak when using it as the Gateway for the programming tool. ▪ Fixed RTC drift at high operation temperatures. ▪ Improved immunity against external electromagnetic interferences. ▪ Fixed CAN diagnostics and RTR messages (when DLC is zero) reception. ▪ Updated OPC UA Server operational limits to provide better interoperability with Clients. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.12.15.0	10/03/2023
-	▪ Included support for CODESYS MODBUS Master Serial and TCP. ▪ Fixed problem where the CPU would evetually not start after a power-on. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.10.53.0	12/01/2023
AJ	▪ Minor hardware improvements to fix an internal industrial problem. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.10.51.0	17/01/2023
AI	▪ Changed the product label to include CE and UK CA certifications. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.10.51.0	05/12/2022
AH	▪ Minor hardware changes in order to improve the product. ▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.10.51.0	01/12/2022
AA-AG	▪ Initial revision. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.10.51.0	21/10/2022

2.3.5 BCS-NX3010 – CPU 1 ETH, 2 SERIAL – BJ

REV	Description	Version	Date
BT	▪ Support for BCS Tools 3.77. ▪ Fixed a problem that could result in session timeout during the download of large projects. ▪ Fixed an issue where the programming system displayed duplicate read-only client connections. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.18.0	04/03/2026
BS	▪ Included support to a new part number of LCD display (no change in visual and/or functionality). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.14.0	03/04/2025
BR	▪ Support for BCS Tools 3.70.	1.14.12.0	30/11/2024

	▪ Fixed a problem introduced on firmware 1.10.8.0 where the User Rights credentials could be corrupted, making it impossible to login into the controller again. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
BQ	▪ Support for BCS Tools 3.61 ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.7.0	08/02/2024
BP	▪ Fixed a problem related to NX4010 diagnostics on the System Web Page that could cause an internal exception, leading the CPU to stop. ▪ Fixed a problem related to Ethernet communication that could cause an internal exception on some specific conditions, leading the CPU to stop. ▪ Fixed OPC UA interoperability with Kepware. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.10.12.0	21/11/2023
BO	▪ Support for BCS Tools 3.40. ▪ Fixed wrong "Factory Missing" log message. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.10.8.0	15/12/2022
BN	▪ Fixed the retain system to keep the values after a reboot caused by an internal software error. ▪ Fixed potential exception when an application is removed (reset origin). ▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.4.0	19/10/2022
BM	▪ New format of firmware update file. This update requires the controller running on firmware version 1.8.13.0 or greater. ▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.1.0	26/07/2021
-	▪ Changed firmware update mechanism to include support for the new file format that will be introduced on upcoming versions. ▪ Included fixed DNS server settings (8.8.8.8 and 8.8.4.4). ▪ Improved NIC Teaming performance. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.13.0	26/07/2021
BL	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.10.0	26/07/2021
BK	▪ Included support for PROFINET Controller. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.10.0	21/05/2021
BJ	▪ Included support for *"number of connected clients"* diagnostic in status bar. To see this diagnostic, BCS Tools version 3.31 or greater is required. ▪ Removed the hidden page "getlogs" from the system web page to improve cyber security. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.9.0	13/01/2021
BI	▪ Fixed a problem that was not allowing the CPU to go to RUN when the application name was different from the default "Application".	1.8.8.0	24/09/2020

	▪ Fixed a problem related to the system webpage cache. This eliminates the need of clearing the cache on browser side, which was previously required under some circumstances to show the page correctly. ▪ Included protectors for the product connectors. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.		
-	▪ Included support to client certificate in the Function Block MQTT Client (requires the BCS Tools 3.23 or greater). ▪ Fixed a problem that was not allowing to perform a firmware update when the CPU had an application loaded. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.6.0	05/06/2020
BH	▪ Included support for MQTT Client Function Block (requires BCS Tools 3.19 or greater). ▪ Included support for the latest version of LibSQLClient library. ▪ General fixes on User Rights Management, which was not working properly on version 1.7.x.x. ▪ Updated the RJ45 connector of the Ethernet interfaces. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.3.0	27/01/2020
BF-BG	▪ Fixed the copy from memory card to CPU. ▪ Fixed EasyConnection behavior, where the application was not being erased after applying the new IP adress, resulting on returning to the IP address set by the application. ▪ Included support for EtherNet/IP Scanner and Adapter ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.0.14	03/10/2019
BE	▪ Improvement on Ethernet interface to avoid uncontrolled retransmission of ACK message on IP conflict scenarios, which could impact on CPU execution cycle. ▪ Fixed the LCD menu for copying application on Memory Card, which was missing since version 1.6.0.11. ▪ Fixed log message "Retain restore from file failed" that was incorrectly generated on power on. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.0.11	09/07/2019
BD	▪ Included support for OPC UA protocol ▪ Included a fixed DNS Server configuration (8.8.8.8 and 8.8.4.4) ▪ Improvements on Easy Connection feature ▪ Fixed a problem on function GetTimeZone, which could cause an exception leading the CPU to STOP. ▪ Improvements on GetDateAndTime and GetDayOfWeek functions, which could cause peak on execution time. ▪ Fixed treatment of I/O modules on breakpoint condition on projects using machine profile. ▪ Removed log message generated when the system time is updated by SNTP (to avoid log being flooded with this message) ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.0.8	11/03/2019
BC	▪ Small text correction on Installation Guide ▪ Updated the product label for compliance of the UL certification, File Number E496087.	1.6.1.3	15/01/2019
AS-BB	▪ These revisions were skipped due to integration of internal documentation ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	-	-
AR	▪ Added new configuration options for MODBUS Symbolic mode (Server and Slave); ▪ Added return of Easy Execution command execution status; ▪ Including support for new Nexto Jet solution modules;	1.6.1.3	02/10/2017

	▪ Improved Ethernet IP protocol; ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.		
AQ	▪ Included support to IEC104 server. ▪ Included support to clock settings. ▪ Included support to easy connection. ▪ Included support to dynamic IP. ▪ Included support to mixed analog module NJ6005. ▪ Included support for MSSQL_Client Function Block for accessing Microsoft databases. ▪ Homologation of alternative part numbers for components used on this product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.6.0.11	06/01/2017
AP	▪ Enhancement of factory test software. ▪ Components that belonged to a non-used circuit were removed to reduce the product's structure. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.3.50.	1.5.1.7	10/10/2016
AO	▪ Changed the product label to comply with the new revision of CE directive. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.3.50.	1.5.1.7	08/06/2016
AN	▪ Homologation of alternative part numbers for components used on this product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.3.50.	1.5.1.7	01/06/2016
AM	▪ Included SNTP diagnostics in MIB Private. ▪ Fixed possible exception when using projects with Basic profile. ▪ Included support for the additional option introduced on BCS Tools 2.05 that allows using Retain and Persistent variables on Function Blocks. ▪ Enhancements on EtherCAT protocol when used on situations with heavy traffic on other Ethernet ports. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.3.50.	1.5.1.7	26/02/2016
AL	▪ Included support for I/O modules of the Nexto Jet solution. ▪ Included support for size flexibility of Retentive and Persistent memory areas. ▪ Fixed possible loss of system logs after a power failure. ▪ Changed web message in case firmware update failure when there are too many applications running. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.3.50.	1.5.1.3	11/11/2015
AK	▪ Fixed a possible exception after performing hot-swap of modules on the local bus. ▪ Fixed a problem which causes exception after na online change in Symbol Configuration. ▪ Fixed a problem where the Retain and Persistent are intialized after an exception. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.3.50.	1.5.0.15	04/08/2015
AJ	▪ Included the vital failure feature for NETs on projects with half-cluster redundancy. ▪ Included the support for new 8-position rack NX9000 on diagnostics of web page. ▪ Included the support for SNTP. ▪ Changed the maximum number of communication channels simultaneouly connected to CPU from 4 to 8. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.3.50.	1.5.0.10	25/05/2015

AI	▪ Included the support for OPC protocol. ▪ Included the support for Application CRC feature. ▪ Included two new hot swap modes: Hot Swap Disabled and Hot Swap Enabled with startup consistency. ▪ Included the support for SNMP (agent) protocol supporting MIBII and Private. ▪ Included new system logs with userful information to help diagnosis and troubleshooting. ▪ System log is now retain (i.e, the log remains on memory even after restarting the CPU). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.3.50.	1.4.0.33	24/09/2014
AH	▪ Fixed the synchronism of forced BIT variables on redundant systems. ▪ Included the support for NX6020 module. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.3.0.31	30/07/2014
AG	▪ Included the support for MODBUS Symbol drivers (Client/Server and Master/Slave RTU). ▪ Included the support for the library that provides User Log on Memory Card. ▪ Fixed the diagnostic indication in case of failure of the OTD key. ▪ Improvements on the Memory Card access. ▪ Improvement of CPU boot time. ▪ Included the support for NX6010 module. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.3.0.22	09/01/2014
AF	▪ Fixed diagnostic with quantities of system restart. ▪ Improvement of initialization time. ▪ Modified task priorities after RTS reset to keep the same behavior. ▪ Improvement in bus scan time. ▪ Improvemente and fixes in memory alocation. ▪ Fixed the treatment of tasks that access the I/O simultaneously. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.2.4.0	30/09/2013
AE	▪ Enhancement and fix in bus interruption treatment. ▪ Enhancement in the communication bus. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.2.2.3	28/06/2013
AD	▪ Changed the bill of materials to add the earthing spring holder. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.2.1.0	12/04/2013
AC	▪ RoHS compliant revision. ▪ Enhancement in bus interruption treatment. ▪ Modified internal identification code in the firmware. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.2.1.0	22/01/2013
AB	▪ Inclusion of module firmware version on web pages ▪ Increased compatibility with some memory card models. ▪ Fix in web presentation of architecture when used rack expansion. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.2.0.9	30/10/2012
AA	▪ Initial revision. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.2.0.7	23/08/2012

2.3.6 BCS-NX3020 – CPU 2 ETH, 2 SERIAL, RACK EXP. – BJ

REV	Description	Version	Date
BQ	▪ Support for BCS Tools 3.77.	1.14.18.0	04/03/2026

	▪ Fixed a problem that could result in session timeout during the download of large projects. ▪ Fixed an issue where the programming system displayed duplicate read-only client connections. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.		
BP	▪ Included support to a new part number of LCD display (no change in visual and/or functionality). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.14.0	03/04/2025
BO	▪ Support for BCS Tools 3.70. ▪ Fixed a problem introduced on firmware 1.10.8.0 where the User Rights credentials could be corrupted, making it impossible to login into the controller again. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.12.0	30/11/2024
BN	▪ Support for BCS Tools 3.61 ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.7.0	08/02/2024
BM	▪ Fixed a problem related to NX4010 diagnostics on the System Web Page that could cause an internal exception, leading the CPU to stop. ▪ Fixed a problem related to Ethernet communication that could cause an internal exception on some specific conditions, leading the CPU to stop. ▪ Fixed OPC UA interoperability with Kepware. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.10.12.0	21/11/2023
BL	▪ Support for BCS Tools 3.40. ▪ Fixed wrong “Factory Missing” log message ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.10.8.0	15/12/2022
BK	▪ Fixed the retain system to keep the values after a reboot caused by an internal software error. ▪ Fixed potential exception when an application is removed (reset origin). ▪ Fixed an exception that occurs when using DBP with its individual elements ON/OFF mapped to MODBUS. ▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.4.0	01/11/2022
BJ	▪ In this revision there were only internal changes in the documentation. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.1.0	05/04/2022
BI	▪ New format of firmware update file. This update requires the controller running on firmware version 1.8.13.0 or greater. ▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface. ▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.1.0	26/07/2021
-	▪ Changed firmware update mechanism to include support for the new file format that will be introduced on upcoming versions. ▪ Included fixed DNS server settings (8.8.8.8 and 8.8.4.4).	1.8.13.0	26/07/2021

	▪ Improved NIC Teaming performance. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.		
BH	▪ Included support for PROFINET Controller. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.10.0	21/05/2021
BG	▪ Included support for *"number of connected clients"* diagnostic in status bar. To see this diagnostic, BCS Tools version 3.31 or greater is required. ▪ Removed the hidden page "getlogs" from the system web page to improve cyber security. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.9.0	13/01/2021
BF	▪ Fixed a problem that was not allowing the CPU to go to RUN when the application name was different from the default "Application". ▪ Fixed a problem related to the system webpage cache. This eliminates the need of clearing the cache on browser side, which was previously required under some circumstances to show the page correctly. ▪ Included protectors for the product connectors. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.8.0	24/09/2020
BE	▪ Updated the RJ45 connector of the Ethernet interfaces. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.6.0	29/04/2020
-	▪ Included support to client certificate in the Function Block MQTT Client (requires the BCS Tools 3.23 or greater). ▪ Fixed a problem that was not allowing to perform a firmware update when the CPU had an application loaded. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.6.0	05/06/2020
BD	▪ Included support for MQTT Client Function Block (requires BCS Tools 3.19 or greater). ▪ Included support for the latest version of LibSQLClient library. ▪ General fixes on User Rights Management, which was not working properly on version 1.7.x.x. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.3.0	27/01/2020
BB-BC	▪ Fixed the copy from memory card to CPU. ▪ Fixed EasyConnection behavior, where the application was not being erased after applying the new IP adress, resulting on returning to the IP address set by the application. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.0.14	03/10/2019
BA	▪ Improvement on Ethernet interface to avoid uncontrolled retransmission of ACK message on IP conflict scenarios, which could impact on CPU execution cycle. ▪ Fixed the LCD menu for copying application on Memory Card, which was missing since version 1.6.0.11. ▪ Fixed log message "Retain restore from file failed" that was incorrectly generated on power on. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.0.11	09/07/2019
AZ	▪ Included support for OPC UA protocol ▪ Included a fixed DNS Server configuration (8.8.8.8 and 8.8.4.4) ▪ Improvements on Easy Connection feature ▪ Fixed a problem on function GetTimeZone, which could cause an exception leading the CPU to STOP. ▪ Improvements on GetDateAndTime and GetDayOfWeek functions, which could cause peak on execution time. ▪ Fixed treatment of I/O modules on breakpoint condition on projects	1.7.0.8	11/03/2019

	using machine profile. ▪ Removed log message generated when the system time is updated by SNTP (to avoid log being flooded with this message)		
AY	▪ Small text correction on Installation Guide ▪ Updated the product label for compliance of the UL certification, File Number E496087. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.6.1.3	15/01/2019
AS-AX	▪ These revisions were skipped due to integration of internal documentation	-	-
AR	▪ Included the licence IEC-104 in the BOM of the product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.6.1.3	03/09/2018
AQ	▪ Added new configuration options for MODBUS Symbolic mode (Server and Slave); ▪ Added return of Easy Execution command execution status; ▪ Including support for new Nexto Jet solution modules; ▪ Improved Ethernet IP protocol; ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.6.1.3	02/10/2017
AP	▪ Included support to IEC104 server. ▪ Included support to clock settings. ▪ Included support to easy connection. ▪ Included support to dynamic IP. ▪ Included support to mixed analog module NJ6005. ▪ Included support for MSSQL_Client Function Block for accessing Microsoft databases. ▪ Homologation of alternative part numbers for components used on this product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.6.0.11	06/01/2017
AO	▪ Enhancement of factory test software. ▪ Components that belonged to a non-used circuit were removed to reduce the product's structure. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.5.1.7	10/10/2016
AN	▪ Changed the product label to comply with the new revision of CE directive. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.5.1.7	08/06/2016
AM	▪ Homologation of alternative part numbers for components used on this product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.5.1.7	01/06/2016
AL	▪ Included SNTP diagnostics in MIB Private. ▪ Fixed possible exception when using projects with Basic profile. ▪ Included support for the additional option introduced on BCS Tools 2.05 that allows using Retain and Persistent variables on Function Blocks. ▪ Enhancements on EtherCAT protocol when used on situations with heavy traffic on other Ethernet ports. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.5.1.7	26/02/2016
AK	▪ Included support for I/O modules of the Nexto Jet solution. ▪ Included support for size flexibility of Retentive and Persistent memory areas. ▪ Fixed possible loss of system logs after a power failure. ▪ Changed web message in case firmware update failure when there are too many applications running. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.5.1.3	11/11/2015

AJ	▪ Fixed a possible exception after performing hot-swap of modules on the local bus. ▪ Fixed a problem which causes exception after na online change in Symbol Configuration. ▪ Fixed a problem where the Retain and Persistent are intialized after an exception. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.5.0.15	04/08/2015
AI	▪ Included the vital failure feature for NETs on projects with half-cluster redundancy. ▪ Included the support for EtherCAT Master. ▪ Included the support for new 8-position rack NX9000 on diagnostics of web page. ▪ Changed the maximum number of communication channels simultaneouly connected to CPU from 4 to 8. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.5.0.10	25/05/2015
AH	▪ Included the support for OPC protocol. ▪ Included the support for Application CRC feature. ▪ Included two new hot swap modes: Hot Swap Disabled and Hot Swap Enabled with startup consistency. ▪ Included the support for SNMP (agent) protocol supporting MIBII and Private. ▪ Included new system logs with userful information to help diagnosis and troubleshooting. ▪ System log is now retain (i.e, the log remains on memory even after restarting the CPU). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.4.0.33	24/09/2014
AG	▪ Fixed the synchronism of forced BIT variables on redundant systems. ▪ Included the support for NX6020 module. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.3.0.31	30/07/2014
AF	▪ Included the support for MODBUS Symbol drivers (Client/Server and Master/Slave RTU). ▪ Included the support for the library that provides User Log on Memory Card. ▪ Fixed the diagnostic indication in case of failure of the OTD key. ▪ Improvements on the Memory Card access. ▪ Improvement of CPU boot time. ▪ Included the support for NX6010 module. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.3.0.22	09/01/2014
AE	▪ Fixed diagnostic with quantities of system restart. ▪ Improvement of initialization time. ▪ Modified task priorities after RTS reset to keep the same behavior. ▪ Improvement in bus scan time. ▪ Improvemente and fixes in memory alocation. ▪ Fixed the treatment of tasks that access the I/O simultaneously. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.2.4.0	30/09/2013
AD	▪ Enhancement and fix in bus interruption treatment. ▪ Enhancement in the communication bus. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.2.2.3	28/06/2013
AC	▪ Changed the bill of materials to add the earthing spring holder. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.2.1.0	12/04/2013
AB	▪ RoHS compliant revision. ▪ Enhancement in bus interruption treatment.	1.2.1.0	22/01/2013

	▪ Modified internal identification code in the firmware. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.		
AA	▪ Initial revision. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.2.0.9	23/08/2012

2.3.7 BCS-NX3030 - CPU 2 ETH, 2 SERIAL,RACK EXP,RED-BJ

REV	Description	Version	Date
BT	▪ Support for BCS Tools 3.77. ▪ Fixed a problem that could result in session timeout during the download of large projects. ▪ Fixed an issue where the programming system displayed duplicate read-only client connections. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.18.0	04/03/2026
BS	▪ This new product revision refers to changes in internal documentation, in which similar products were changed, which did not affect this product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.14.0	02/07/2025
BR	▪ Included support to a new part number of LCD display (no change in visual and/or functionality). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.14.0	03/04/2025
BQ	▪ Support for BCS Tools 3.70. ▪ Fixed a problem introduced on firmware 1.10.8.0 where the User Rights credentials could be corrupted, making it impossible to login into the controller again. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.12.0	30/11/2024
BP	▪ Support for BCS Tools 3.61 ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.7.0	08/02/2024
BO	▪ Fixed a problem related to NX4010 diagnostics on the System Web Page that could cause an internal exception, leading the CPU to stop. ▪ Fixed a problem related to Ethernet communication that could cause an internal exception on some specific conditions, leading the CPU to stop. ▪ Fixed OPC UA interoperability with Kepware. ▪ Fixed project synchronization when using a custom application name. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.10.12.0	17/11/2023
BN	▪ Support for BCS Tools 3.40. ▪ Fixed wrong “Factory Missing” log message ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.	1.10.8.0	15/12/2022
BM	▪ Fixed the redundancy project synchronization system when downloading an application in a Stand-By CPU with the other still in Active (an invalid operation). ▪ Fixed the retain system to keep the values after a reboot caused by an internal software error. ▪ Fixed potential exception when an application is removed (reset origin). ▪ Fixed an exception that occurs when using DBP with its individual elements ON/OFF mapped to MODBUS.	1.9.4.0	01/11/2022

	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.		
BL	▪ New format of firmware update file. This update requires the controller running on firmware version 1.8.13.0 or greater. ▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface. ▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.9.1.0	26/07/2021
-	▪ Changed firmware update mechanism to include support for the new file format that will be introduced on upcoming versions. ▪ Included fixed DNS server settings (8.8.8.8 and 8.8.4.4). ▪ Improved NIC Teaming performance. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.13.0	26/07/2021
BK	▪ Fixed the NX4010 redundancy diagnostics presentation on the Web interface. ▪ Included support for PROFINET Controller. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.10.0	21/05/2021
BJ	▪ Included support for *"number of connected clients"* diagnostic in status bar. To see this diagnostic, BCS Tools version 3.31 or greater is required. ▪ Removed the hidden page "getlogs" from the system web page to improve cyber security. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.9.0	13/01/2021
BI	▪ Fixed the force diagnostic bForcedIOs, which was not being informed correectly on the stand-by PLC. ▪ Fixed a problem that was not allowing the CPU to go to RUN when the application name was different from the default "Application". ▪ Fixed a problem related to the system webpage cache. This eliminates the need of clearing the cache on browser side, which was previously required under some circumstances to show the page correctly. ▪ Included protectors for the product connectors. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.8.0	24/09/2020
BH	▪ Updated the RJ45 connector of the Ethernet interfaces. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.6.0	29/04/2020
-	▪ Included support to client certificate in the Function Block MQTT Client (requires the BCS Tools 3.23 or greater). ▪ Fixed a problem that was not allowing to perform a firmware update when the CPU had an application loaded. ▪ Fixed a problem introduced on the previous version which reduced the capability of the redundant system on tolerating an internal software failure in one of the CPUs. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.	1.8.6.0	05/06/2020
BG	▪ Included support for MQTT Client Function Block (requires BCS Tools 3.19 or greater). ▪ Included support for the latest version of LibSQLClient library. ▪ General fixes on User Rights Management, which was not working	1.8.3.0	27/01/2020

	properly on version 1.7.x.x. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.		
BE-BF	▪ Fixed the copy from memory card to CPU. ▪ Fixed EasyConnection behavior, where the application was not being erased after applying the new IP adress, resulting on returning to the IP address set by the application. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.0.14	03/10/2019
BD	▪ Improvement on Ethernet interface to avoid uncontrolled retransmission of ACK message on IP conflict scenarios, which could impact on CPU execution cycle. ▪ Fixed the LCD menu for copying application on Memory Card, which was missing since version 1.6.0.11. ▪ Fixed log message "Retain restore from file failed" that was incorrectly generated on power on. ▪ Included support to the fix introduced on BCS Tools v3.14 for the error which could cause exception after a switchover of redundant PLC. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.0.11	09/07/2019
BC	▪ Included support for OPC UA protocol ▪ Included a fixed DNS Server configuration (8.8.8.8 and 8.8.4.4) ▪ Improvements on Easy Connection feature ▪ Fixed a problem on function GetTimeZone, which could cause an exception leading the CPU to STOP. ▪ Improvements on GetDateAndTime and GetDayOfWeek functions, which could cause peak on execution time. ▪ Improvements on project synchonization between redundant PLCs ▪ Fixed treatment of I/O modules on breakpoint condition on projects using machine profile. ▪ Removed log message generated when the system time is updated by SNTP (to avoid log being flooded with this message) ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.	1.7.0.8	11/03/2019
BB	▪ Small text correction on Installation Guide ▪ Updated the product label for compliance of the UL certification, File Number E496087. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.6.1.3	15/01/2019
AR-BA	▪ These revisions were skipped due to integration of internal documentation	-	-
AQ	▪ Included the licence IEC-104 in the BOM of the product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.6.1.3	03/09/2018
AP	▪ Added new configuration options for MODBUS Symbolic mode (Server and Slave); ▪ Added return of Easy Execution command execution status; ▪ Including support for new Nexto Jet solution modules; ▪ Improved Ethernet IP protocol; ▪ Improved synchronization of redundant projects; ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.6.1.3	02/10/2017
AO	▪ Included support to IEC104 server. ▪ Included support to clock settings. ▪ Included support to easy connection. ▪ Included support to dynamic IP. ▪ Included support to mixed analog module NJ6005. ▪ Included support for MSSQL_Client Function Block for accessing Microsoft databases. ▪ Homologation of alternative part numbers for components used on	1.6.0.11	06/01/2017

	this product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.		
AN	▪ Enhancement of factory test software. ▪ Components that belonged to a non-used circuit were removed to reduce the product's structure. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.5.1.7	10/10/2016
AM	▪ Changed the product label to comply with the new revision of CE directive. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.5.1.7	08/06/2016
AL	▪ Homologation of alternative part numbers for components used on this product. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.5.1.7	01/06/2016
AK	▪ Included SNTP diagnostics in MIB Private. ▪ Fixed possible exception when using projects with Basic profile. ▪ Included support for the additional option introduced on BCS Tools 2.05 that allows using Retain and Persistent variables on Function Blocks. ▪ Enhancements on EtherCAT protocol when used on situations with heavy traffic on other Ethernet ports. ▪ Enhancements on handling of redundant variables forcing. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.5.1.7	26/02/2016
AJ	▪ Included support for I/O modules of the Nexto Jet solution. ▪ Included support for size flexibility of Retentive and Persistent memory areas. ▪ Fixed possible loss of system logs after a power failure. ▪ Changed web message in case firmware update failure when there are too many applications running. ▪ Incremented the maximum number of redundant areas from 100 to 1024. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.5.1.3	11/11/2015
AI	▪ Fixed a possible exception after performing hot-swap of modules on the local bus. ▪ Fixed forcing of variables on redundant system. ▪ Fixed a problem which causes exception after na online change in Symbol Configuration. ▪ Fixed a problem where the Retain and Persistent are intialized after an exception. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.5.0.15	04/08/2015
AH	▪ Included the vital failure feature for NETs on projects with half-cluster redundancy. ▪ Included the support for EtherCAT. ▪ Included the support for new 8-position rack NX9000 on diagnostics of web page. ▪ Included the support for. ▪ Changed the maximum number of communication channels simultaneouly connected to CPU from 4 to 8. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.	1.5.0.10	25/05/2015
AG	▪ Included the support for OPC protocol. ▪ Included the support for Application CRC feature. ▪ Included two new hot swap modes: Hot Swap Disabled and Hot Swap Enabled with startup consistency. ▪ Included the support for SNMP (agent) protocol supporting MIBII and Private.	1.4.0.33	29/09/2014

	▪ Included new system logs with userful information to help diagnosis and troubleshooting. ▪ System log is now retain (i.e, the log remains on memory even after restarting the CPU). ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.		
AF	▪ Fixed the synchronism of forced BIT variables on redundant systems. ▪ Included the support for NX6020 module.	1.3.0.31	30/07/2014
AE	▪ Included the support for MODBUS Symbol drivers (Client/Server and Master/Slave RTU). ▪ Included the support for the library that provides User Log on Memory Card. ▪ Fixed the diagnostic indication in case of failure of the OTD key. ▪ Improvements on the Memory Card access. ▪ Improvement of CPU boot time. ▪ Included the support for NX6010 module. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.3.0.22	09/01/2014
AD	▪ Fixed diagnostic with quantities of system restart. ▪ Improvement of initialization time. ▪ Modified task priorities after RTS reset to keep the same behavior. ▪ Improvement in bus scan time. ▪ Improvemente and fixes in memory alocation. ▪ Fixed the treatment of tasks that access the I/O simultaneously. ▪ Fixed project synchronization after a restart of standby PLC. ▪ Fixed the timout to synchronize the project. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.2.4.0	30/09/2013
AC	▪ Enhancement and fix in bus interruption treatment. ▪ Enhancement in the communication bus. ▪ Fix in the redundant project synchronism. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.2.2.3	28/06/2013
AB	▪ Changed the bill of materials to add the earthing spring holder. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.2.1.0	12/04/2013
AA	▪ Initial revision. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.	1.2.1.0	22/01/2013

2.3.8 BCS-NX8000 - 30W 24VDC PSU - BJ

REV	Description	Version	Date
AQ	▪ Minor hardware changes in order to improve the product. ▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	NA	01/12/2022
AP	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	NA	26/07/2021
AO	▪ Updated the product label for compliance of the UL certification, File Number E496087.	NA	04/06/2020
AK-AN	▪ These revisions were skipped due to integration of internal documentation	-	-
AJ	▪ This new product revision is related to the change in the overlay material.	NA	12/09/2018

AI	▪ Homologation of alternative part numbers for components used on this product.	NA	19/12/2016
AH	▪ Changed the product label to comply with the new revision of CE directive.	NA	22/09/2016
AG	▪ Enhancement on test system for test of NX3004.	NA	30/12/2015
AF	▪ Enhancement on test system to improve detection of module interference on WSDE line (rack number).	NA	17/06/2014
AE	▪ Changed the maintenance procedure.	NA	20/05/2014
AD	▪ Changed the bill of materials to add the earthing sping holder.	NA	12/04/2013
AC	▪ RoHS compliant revision.	NA	22/01/2013
AB	▪ Label printed using a new printer.	NA	30/10/2012
AA	▪ Initial revision.	NA	31/08/2012

2.3.9 BCS-NX1005 - 24 VDC 8 DOT/8 DI MIXED MODULE - BJ

REV	Description	Version	Date
AL	▪ Minor improvement in the external mechanics of the product, without significant impact.	1.2.0.7	22/03/2022
AK	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.2.0.7	26/07/2021
AJ	▪ Updated the product label for compliance of the UL certification, File Number E496087.	1.2.0.7	24/06/2020
AI	▪ Changes in the source code shared with other products that doesn't affect the behaviour of this product.	1.2.0.7	15/08/2017
AH	▪ Enhancement in factory process. ▪ Changed the product label to comply with the new revision of CE directive.	1.2.0.4	31/08/2016
AG	▪ Homologation of alternative part numbers for components used on this product.	1.2.0.4	14/06/2016
AF	▪ Impovements in the Factory Test system.	1.2.0.4	28/10/2015
AE	▪ Approval on EtherCAT Conformance Test. ▪ Included the support for operation with Xtorm Series.	1.2.0.4	12/06/2014
AD	▪ Fixed the use of External Event on operating modes 2,3 and 4.	1.1.0.3	15/08/2013
AC	▪ Changed the bill of materials to add the earthing spring holder.	1.1.0.1	12/04/2013
AB	▪ RoHS compliant revision.	1.1.0.1	09/02/2013
AA	▪ Initial revision.	1.0.0.0	24/10/2012

2.3.10 BCS-NX1001 - 24 VDC 16 DI MODULE – BJ

REV	Description	Version	Date
AO	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.2.0.20	12/04/2023
AN	▪ Minor improvement in the external mechanics of the product, without significant impact.	1.2.0.20	22/03/2022
AM	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.2.0.20	26/07/2021
AL	▪ Updated the product label for compliance of the UL certification, File Number E496087.	1.2.0.20	24/06/2020
AK	▪ Changes in the test system for including new product. ▪ Changes the time of Burn In.	1.2.0.20	15/08/2017
AJ	▪ Enhancements for reducing the threshold voltage of internal voltage	1.2.0.20	01/02/2017

	regulator.		
AI	▪ Enhancement in factory process. ▪ Changed the product label to comply with the new revision of CE directive.	1.2.0.20	31/08/2016
AH	▪ Homologation of alternative part numbers for components used on this product.	1.2.0.20	14/06/2016
AG	▪ Improve the performance of the input update time. ▪ Fixed the support of filters for the inputs of Group 1.	1.2.0.20	28/10/2015
AF	▪ Approval on EtherCAT Conformance Test. ▪ Included the support for operation with Xtorm Series.	1.2.0.3	13/06/2014
AE	▪ Fixed the use of External Event on operating modes 2,3 and 4.	1.1.0.2	15/08/2013
AD	▪ Changed the bill of materials to added the the earthing sping holder.	1.1.0.1	12/04/2013
AC	▪ RoHS compliant revision.	1.1.0.1	14/02/2013
AB	▪ Changed the PCI – revision B.	1.0.0.9	30/10/2012
AA	▪ Initial revision.	1.0.0.0	21/08/2012

2.3.11 BCS-NX6000 - 8 AI VOLTAGE/CURRENT MODULE - BJ

REV	Description	Version	Date
BD	▪ This new product revision refers to the minor changes in the product hardware to implement improvements related to the inrush current.	1.4.0.0	27/07/2023
BC	▪ Minor changes in the product hardware to implement improvements. ▪ Document was changed to a new EM model, where it was included the AM (Modification Analysis) chapter and the RT's became an annex of the document to enhancements on documentation for internal control.	1.4.0.0	13/06/2023
BB	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.4.0.0	02/12/2022
BA	▪ Minor improvement in the external mechanics of the product, without significant impact.	1.4.0.0	22/03/2022
AZ	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.4.0.0	26/07/2021
AY	▪ Included support for the new option "Disabled" for the parameter "Open Loop Value".	1.4.0.0	03/09/2019
AX	▪ This new product revision is related to test system modifications for including other module in test system.	1.3.0.7	05/12/2018
AR-AW	▪ These revisions were skipped due to integration of internal documentation	-	-
AQ	▪ This new product revision is related to the change in the product overlay to fix the opening of the display window.	1.3.0.7	24/04/2018
AP	▪ Enhancements of diagnostics detection of analog inputs. ▪ Fixed an issue where the module could take up to 4s (instead of 2s) to detect loss of bus master.	1.3.0.7	15/02/2018
AO	▪ This new product revision is related to test system modifications for including other module in test system.	1.3.0.3	15/09/2017
AN	▪ Enhancements on immunity against electromagnetic interference.	1.3.0.3	10/08/2016
AM	▪ Changed the product label to comply with the new revision of CE directive.	1.3.01	08/06/2016
AL	▪ Enhancement in factory process.	1.3.0.1	13/05/2016
AK	▪ Homologation of alternative part numbers for components used on this product.	1.3.0.1	11/05/2016
AJ	▪ Enhancements on the protection circuit of analog inputs.	1.3.0.1	16/11/2015

AI	▪ Enhancements on the calibration process of the module (performed during factory test). ▪ Addition of a new scale +-5Vdc. ▪ Enhancements on the configuration process of the module.	1.3.0.1	03/11/2015
AH	▪ Enhancements on the calibration process of the analog channels (performed during factory test).	1.2.0.6	03/12/14
AG	▪ Approval on EtherCAT Conformance Test. ▪ Included the support for operation with Xtorm Series.	1.2.0.4	05/06/14
AF	▪ Enhancements in the assembly instructions.	1.0.1.8	28/05/14
AE	▪ Enhancements in the Factory Test procedure.	1.0.1.8	14/03/14
AD	▪ Changed the bill of materials. ▪ Changes the software version to improve the behavior of hot swap, callibration process and reset operations.	1.0.1.8	12/07/2013
AC	▪ Changed the bill of materials to add earthing sping holder.	1.0.1.2	26/04/2013
AB	▪ RoHS compliant revision. ▪ Changed the EtherCAT vendor ID.	1.0.1.2	21/02/2013
AA	▪ Initial revision.	1.0.0.14	24/10/2012

2.3.12 BCS-NX6010 - 8 AI THERMOCOUPLE MODULE - BJ

REV	Description	Version	Date
AR	▪ This new product revision refers to the minor changes in the product hardware to implement improvements related to the inrush current.	1.0.0.16	27/07/2023
AQ	▪ Minor changes in the product hardware to implement improvements. ▪ Document was changed to a new EM model, where it was included the AM (Modification Analysis) chapter and the RT's became an annex of the document to enhancements on documentation for internal control.	1.0.0.16	19/06/2023
AP	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. UKCA Certification marking included on product.	1.0.0.16	12/04/2023
AO	▪ Enhancements on immunity against electromagnetic interference.	1.0.0.16	10/05/2022
AN	▪ Minor improvement in the external mechanics of the product, without significant impact.	1.0.0.14	22/03/2022
AM	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.0.0.14	29/07/2021
AJ-AL	▪ These revisions were skipped due to integration of internal documentation	-	-
AI	▪ Changes in the scope of the source to add the BCS NJ6011 module	1.0.0.14	17/04/2018
AH	▪ Enhancements on the calibration process of the module (performed during factory test).	1.0.0.13	15/09/2017
AG	▪ Additional enhancements on immunity against electromagnetic interference.	1.0.0.11	10/08/2016
AF	▪ Enhancements on immunity against electromagnetic interference. ▪ Changed the product label to comply with the new revision of CE directive.	1.0.0.9	08/07/2016
AE	▪ Enhancement in factory process.	1.0.0.6	13/05/2016
AD	▪ Homologation of alternative part numbers for components used on this product.	1.0.0.6	11/05/2016
AC	▪ Enchancements on the calibration process of the module (performed during factory test). ▪ Approval on EtherCAT Conformance Test.	1.0.0.6	03/11/2015
AB	▪ Enhancement on the module's calibration procedure during production process.	1.0.0.5	03/12/2014

AA	▪ Initial revision.	1.0.0.4	12/06/2014

2.3.13 BCS-NX6020 - 8 AI RTD MODULE - BJ

REV	Description	Version	Date
AP	▪ This new product revision refers to the minor changes in the product hardware to implement improvements related to the inrush current.	1.1.0.8	27/07/2023
AO	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. UKCA Certification marking included on product.	1.1.0.8	18/04/2023
AN	▪ Minor improvement in the external mechanics of the product, without significant impact.	1.1.0.8	22/03/2022
AM	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.1.0.8	29/07/2021
AL	▪ Support for the new hardware revision which introduces additional improvements to immunity against electromagnetic interferences.	1.1.0.8	29/09/2020
AK	▪ Updated the product label for compliance of the UL certification, File Number E496087	1.1.0.3	24/06/2020
AJ	▪ This revision was skipped due to integration of internal documentation	-	-
AI	▪ This new product revision is related to the change in the product overlay to fix the opening of the display window.	1.1.0.3	24/04/2018
AH	▪ This new product revision is related to modifications for including other module in test system.	1.1.0.3	15/09/2017
AG	▪ This new product revision refers to the new revision of the front label of the product, in which the indication of A next to the identification (BCS-NX6020 A) has been added so that it conforms to the standard of the Nexto Series. In addition, the Burn In time was changed.	1.1.0.3	08/05/2017
AF	▪ Improved immunity against electromagnetic interferences.	1.1.0.3	13/01/2017
AE	▪ Changed the product label to comply with the new revision of CE directive.	1.1.0.1	20/05/2016
AD	▪ Homologation of alternative part numbers for components used on this product.	1.1.0.1	18/05/2016
AC	▪ Addition of a new scale of 10kΩ.	1.1.0.1	03/11/2015
AB	▪ Fixed the display treatment for unsigned modules. ▪ Fixed the OTD button test on factory test mode. ▪ Enhancement on the module's reconfiguration after communication loss.	1.0.0.3	15/05/2014
AA	▪ Initial revision.	1.0.0.0	21/02/2014

2.3.14 BCS-NX2001 - 24 VDC 16 DO TRANSISTOR MODULE - BJ

REV	Description	Version	Date
AP	▪ Included support for new parameter "Output behavior when CPU is in STOP" (requires BCS Tools 3.75 or greater).	1.2.0.10	03/04/2025
AO	▪ No modification in the product (production documentation changed)	1.2.0.8	31/01/2024
AN	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. UKCA Certification marking included on product.	1.2.0.8	04/05/2023
AM	▪ Minor improvement in the external mechanics of the product,	1.2.0.8	16/12/2021

	without significant impact.		
AL	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.2.0.8	26/07/2021
AK	▪ Updated the product label for compliance of the UL certification, File Number E496087.	1.2.0.8	24/06/2020
AJ	▪ This revision was skipped due to integration of internal documentation	-	-
AI	▪ Changes in the test system for including new product. ▪ Changes the time of Burn In.	1.2.0.8	15/08/2017
AH	▪ Enhancements for reducing the threshold voltage of internal voltage regulator.	1.2.0.8	17/02/2017
AG	▪ Enhancement in factory process. ▪ Changed the product label to comply with the new revision of CE directive.	1.2.0.8	31/08/2016
AF	▪ Homologation of alternative part numbers for components used on this product.	1.2.0.8	07/06/2016
AE	▪ Improved the performance of the output update time.	1.2.0.8	28/10/2015
AD	▪ Approval on EtherCAT Conformance Test. ▪ Included the support for operation with Xtorm Series.	1.2.0.3	16/06/2014
AC	▪ Included Graunding Clip Holder.	1.0.1.1	12/04/2013
AB	▪ RoHS compliant revision.	1.0.1.1	14/02/2013
AA	▪ Initial revision.	1.0.0.0	24/10/2012

2.3.15 BCS-NX2020 - 16 DO RELAY MODULE - BJ

REV	Description	Version	Date
AM	▪ Updating the documentation of the packaging procedure, which changed the internal code used and adaptation in the packaging assembly.	1.2.0.3	15/01/2025
AL	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.2.0.3	04/09/2023
AK	▪ Integration of internal documentation		
AJ	▪ Changes in the test system for including new product. ▪ Changes the time of Burn In.	1.2.0.3	15/08/2017
AI	▪ Enhancements for reducing the threshold voltage of internal voltage regulator.	1.2.0.3	17/02/2017
AH	▪ Enhancement in factory process.	1.2.0.3	31/08/2016
AG	▪ Changed the product label to comply with the new revision of CE directive.	1.2.0.3	08/06/2016
AF	▪ Homologation of alternative part numbers for components used on this product.	1.2.0.3	07/06/2016
AE	▪ Impovements in the Factory Test system.	1.2.0.3	28/10/2015
AD	▪ Approval on EtherCAT Conformance Test. ▪ Included the support for operation with Xtorm Series.	1.2.0.3	23/06/2014
AC	▪ Included Graunding Clip Holder.	1.0.1.1	12/04/2013
AB	▪ RoHS compliant revision.	1.0.1.1	14/02/2013
AA	▪ Initial revision.	1.0.0.0	24/10/2012

2.3.16 BCS-NX6100 - 4 AO VOLTAGE/CURRENT MODULE - BJ

REV	Description	Version	Date
AX	▪ small changes in the product's hardware to remove decoupling capacitors that were inserted in the last revision of the product, but do not need to be mounted on the printed circuit board.	1.2.0.9	22/02/23

AV	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. UKCA Certification marking included on product.	1.2.0.9	02/01/2023
AU	▪ Minor improvement in the external mechanics of the product, without significant impact.	1.2.0.9	22/03/2022
AT	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.2.0.9	26/07/2021
AS	▪ Updated the product label for compliance of the UL certification, File Number E496087.	1.2.0.9	24/06/2020
AO-AR	▪ These revisions were skipped due to integration of internal documentation	-	-
AN	▪ This new product revision is related to modifications for including other module in test system.	1.2.0.9	25/09/2017
AM	▪ This new product revision is related the inclusion in news part numbers for internal codes with same electrical characteristics and with RoHS compliance.	1.2.0.9	05/10/2016
AL	▪ Changed the product label to comply with the new revision of CE directive.	1.2.0.9	11/07/2016
AK	▪ Enhancement in factory process.	1.2.0.9	13/05/2016
AJ	▪ Homologation of alternative part numbers for components used on this product.	1.2.0.9	11/05/2016
AI	▪ Enhancements on hot swap.	1.2.0.9	27/01/2016
AH	▪ Enchancements on the calibration process of the module (performed during factory test). ▪	1.2.0.7	03/11/2015
AG	▪ Enhancements on the calibration process of the analog channels (performed during factory test).	1.2.0.5	03/12/2014
AF	▪ Approval on EtherCAT Conformance Test. ▪ Included the support for operation with Xtorm Series.	1.2.0.4	12/06/2014
AE	▪ Included the support for new hardware revision.	1.0.1.5	13/03/2014
AD	▪ Improvements on hot-swap logic. ▪ Improvements on module reconfiguration logic after a project download.	1.0.1.3	03/06/2013
AC	▪ Changed the bill of materials to add the earthing sping holder.	1.0.1.1	12/04/2013
AB	▪ RoHS compliant revision.	1.0.1.1	21/02/2013
AA	▪ Initial revision.	1.0.0.13	24/10/2012

2.3.17 BCS-NX4000 - BUS EXPANSION MODULE - BJ

REV	Description	Version	Date
AP	▪ Improved stability of power-on under specific conditions.	1.1.0.7	29/11/2021
AO	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.1.0.7	30/07/2021
AN	▪ Included protectors for the product connectors.	1.1.0.7	24/09/2020
AM	▪ Updated the product label for compliance of the UL certification, File Number E496087.	1.1.0.7	04/06/2020
AJ-AL	▪ These revisions were skipped due to integration of internal documentation	-	-
AI	▪ Changed the product label to comply with the new revision of CE directive.	1.1.0.7	31/08/2016
AH	▪ Homologation of alternative part numbers for components used on this product.	1.1.0.7	20/06/2016
AG	▪ Improvements on module startup.	1.1.0.7	25/01/2016
AF	▪ Approval on EtherCAT Conformance Test.	1.1.0.5	26/06/2014

	▪ Included the support for operation with Xtorm Series.		
AE	▪ Improvements on Factory Test system.	1.1.0.2	11/11/2013
AD	▪ Improvements in the hardware revision.	1.1.0.2	12/08/2013
AC	▪ Enhancement in the LCD test during start up. ▪ Enhancement in the OTD function of the factory test. ▪ Enhancement during start up of local diagnostics.	1.1.0.2	09/07/2013
AB	▪ RoHS compliant revision.	1.1.0.0	12/04/2013
AA	▪ Initial revision.	1.1.0.0	21/02/2013

2.3.18 BCS-NX4010 - REDUNDANCY LINK MODULE - BJ

REV	Description	Version	Date
AQ	▪ In this revision there were only internal changes in the documentation.	1.0.17	08/09/2025
AP	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.0.17	08/02/2023
AO	▪ In this revision there were only internal changes in the documentation.	1.0.17	02/08/2022
AN	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.0.17	30/07/2021
AM	▪ Included protectors for the product connectors.	1.0.1.7	24/09/2020
AL	▪ Updated the product label for compliance of the UL certification, File Number E496087.	1.0.1.7	04/06/2020
AG-AK	▪ These revisions were skipped due to integration of internal documentation	-	-
AF	▪ Changed the product label to comply with the new revision of CE directive.	1.0.1.7	08/06/2016
AE	▪ Homologation of alternative part numbers for components used on this product.	1.0.1.7	07/06/2016
AD	▪ Enhancements on test software	1.0.1.7	05/02/2016
AC	▪ Approval on EtherCAT Conformance Test.	1.0.1.7	16/06/2014
AB	▪ Changed the bill of materials to include the ground spring holder.	1.0.1.0	12/04/2013
AA	▪ Initial revision.	1.0.1.0	28/01/2013

2.3.19 BCS-NX9000 - 8-SLOT BACKPLANE RACK - BJ

REV	Description	Version	Date
AG	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	NA	26/07/2021
AF	▪ Included the Left/Right Side Rack Ends in the product structure.	NA	11/11/2020
AE	▪ Updated the product label for compliance of the UL certification, File Number E496087	NA	06/02/2018
AD	▪ This new product revision refers to the withdrawn of the Burn In step from the production process. In addition, the Left/Right Side Rack Ends has been removed from the product structure.	NA	26/06/2017
AC	▪ Enhancements on factory test system to improve fault detection coverage.	NA	01/08/2016
AB	▪ Changed the product label to comply with the new revision of CE directive.	NA	13/06/2016
AA	▪ Initial revision.	NA	31/07/2015

2.3.20 BCS-NX9001 - 12-SLOT BACKPLANE RACK - BJ

REV	Description	Version	Date
AR	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	NA	26/07/2021
AQ	▪ Included the Left/Right Side Rack Ends in the product structure.	NA	11/11/2020
AK-AP	▪ These revisions were skipped due to integration of internal documentation	-	-
AJ	▪ Updated the product label for compliance of the UL certification, File Number E496087	NA	06/02/2018
AI	▪ This new product revision refers to the withdrawn of the Burn In step from the production process. In addition, the Left/Right Side Rack Ends has been removed from the product structure.	NA	26/06/2017
AH	▪ Enhancements on factory test system to improve fault detection coverage.	NA	01/08/2016
AG	▪ Changed the product label to comply with the new revision of CE directive.	NA	13/06/2016
AF	▪ Enhancement in factory process.	NA	23/03/2016
AE	▪ Impovements on the package (included a plastic bag).	NA	09/12/2014
AD	▪ Impovements on the Factory Test system.	NA	22/01/2014
AC	▪ Impovements on the package. ▪ RoHS compliant revision.	NA	14/03/2013
AB	▪ Label printed using a new printer.	NA	30/10/2012
AA	▪ Initial revision.	NA	21/08/2012

2.3.21 BCS-NX9002 - 16-SLOT BACKPLANE RACK - BJ

REV	Description	Version	Date
AT	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	NA	30/07/2021
AS	▪ Included the Left/Right Side Rack Ends in the product structure	NA	11/11/2020
AR	▪ Updated the product label for compliance of the UL certification, File Number E496087	NA	04/06/2020
AI-AQ	▪ These revisions were skipped due to integration of internal documentation	-	-
AH	▪ This new product revision refers to the withdrawn of the Burn In step from the production process. In addition, the Left/Right Side Rack Ends has been removed from the product structure.	NA	26/06/2017
AG	▪ Enhancements on factory test system to improve fault detection coverage.	NA	01/08/2016
AF	▪ Changed the product label to comply with the new revision of CE directive.	NA	02/07/2016
AE	▪ Enhancement in document of the subassembly.	NA	23/03/2016
AD	▪ Impovements on the package (included a plastic bag).	NA	09/12/2014
AC	▪ Impovements on the Factory Test system.	NA	22/01/2014
AB	▪ Impovements on the package. ▪ RoHS compliant revision.	NA	14/03/2013
AA	▪ Initial revision.	NA	24/10/2012

2.3.22 BCS-NX9003 - 24-SLOT BACKPLANE RACK - BJ

REV	Description	Version	Date
AT	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	NA	03/08/2021

AS	▪ Included the Left/Right Side Rack Ends in the product structure.	NA	11/11/2020
AJ-AR	▪ These revisions were skipped due to integration of internal documentation	-	-
AI	▪ Updated the product label for compliance of the UL certification, File Number E496087	NA	17/04/2018
AH	▪ This new product revision refers to the withdrawn of the Burn In step from the production process. In addition, the Left/Right Side Rack Ends has been removed from the product structure.	NA	26/06/2017
AG	▪ Enhancements on factory test system to improve fault detection coverage.	NA	01/08/2016
AF	▪ Changed the product label to comply with the new revision of CE directive.	NA	05/07/2016
AE	▪ Enhancement in document of the subassembly.	NA	23/03/2016
AD	▪ Impovements on the package (included a plastic bag).	NA	09/12/2014
AC	▪ Impovements on the Factory Test system.	NA	22/02/2014
AB	▪ Impovements on the package. ▪ RoHS compliant revision.	NA	26/04/2013
AA	▪ Initial revision.	NA	24/10/2012

2.3.23 BCS-NX9010 - 8-SLOT BACKPL. RACK (NO HOTSWAP)-BJ

REV	Description	Version	Date
AF	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	NA	02/08/2021
AE	▪ Included the Left/Right Side Rack Ends in the product structure.	NA	11/11/2020
AD	▪ Updated the product label for compliance of the UL certification, File Number E496087	NA	06/02/2018
AC	▪ This new product revision refers to the withdrawn of the steps of Burn In and Coating from the production process.	NA	26/06/2017
AB	▪ Changed the product label to comply with the new revision of CE directive.	NA	17/11/2016
AA	▪ Initial revision.	NA	31/07/2015

2.3.24 BCS–NX9020 – 2-SLOT MOUNTING PANEL - BJ

REV	Description	Version	Date
AD	▪ Updated the product label for compliance of the cUL certification File Number E496087.	NA	01/08/2023
AC	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. UKCA Certification marking included on product.	NA	20/06/2023
AB	▪ Integration of internal documentation.	NA	29/05/2019
AA	▪ Initial revision.	NA	10/07/2018

2.3.25 BCS-NX9100 - LEFT/RIGHT SIDE RACK ENDS – BJ

REV	Description	Version	Date
AE	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	NA	11/08/2021
AD	▪ This revision was skipped due to integration of internal documentation	-	-
AC	▪ Updated the product label for compliance of the UL certification,	NA	26/03/2018

	File Number E496087 ▪ Simplification of the production process		
AB	▪ Changed the product label to comply with the new revision of CE directive.	NA	05/07/2016
AA	▪ Initial revision.	NA	15/03/2013

2.3.26 BCS-NX9101 - 32GB MICROSDHC WITH MINISD ADAP – BJ

REV	Description	Version	Date
AC	▪ Changed from 8GB to 32GB	NA	21/11/2018
AB	▪ Updating of the documentation of the packaging procedure, which changed the internal code of the label used. ▪ Updating of the product label for compliance of the new version of the CE standard.	NA	23/01/2018
AA	▪ Initial revision.	NA	21/11/2013

2.3.27 BCS-NX9102 - BACKPLANE CONNECTOR COVER - BJ

REV	Description	Version	Date
AJ	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	NA	26/07/2021
AI	▪ This revision was skipped due to integration of internal documentation	-	-
AH	▪ Updated the product label for compliance of the UL certification, File Number E496087.	NA	23/01/2019
AE-AG	▪ These revisions were skipped due to integration of internal documentation	-	-
AD	▪ Updating of the documentation of the packaging procedure, which changed the internal code of the label used.	NA	23/01/2018
AC	▪ Changed the product label to comply with the new revision of CE directive.	NA	13/06/2016
AB	▪ Changed color of the packet label to gray.	NA	06/08/2013
AA	▪ Initial revision.	NA	31/10/2012

2.3.28 BCS-NX9401 - 6-TERMINAL CONNECTOR – BJ

REV	Description	Version	Date
AD	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	NA	11/08/2021
AC	▪ This revision was skipped due to integration of internal documentation.	-	-
AB	▪ Updating of the product label for compliance of the new version of the CE standard. ▪ Updating of the documentation of the packaging procedure, which changed the internal code of the label used.	NA	10/01/2018
AA	▪ Initial revision.	NA	21/11/2013

2.3.29 BCS-NX9402 - 10-TERM. CONNECTOR WIRE HOLDER – BJ

REV	Description	Version	Date
AB	▪ Updating of the product label for compliance of the new version of the CE standard. ▪ Updating of the documentation of the packaging procedure, which	NA	11/01/2018

	changed the internal code of the label used.		
AA	▪ Initial revision.	NA	05/08/2013

2.3.30 BCS-NX9403 - 20-TERM. CONNECTOR WIRE HOLDER – BJ

REV	Description	Version	Date
AD	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	NA	11/08/2021
AC	▪ This revision was skipped due to integration of internal documentation.	-	-
AB	▪ Updating of the product label for compliance of the new version of the CE standard. ▪ Updating of the documentation of the packaging procedure, which changed the internal code of the label used.	NA	10/01/2018
AA	▪ Initial revision.	NA	05/08/2013

2.3.31 BCS-NX9404 - 06-TERM.CONNECTOR SCREW FIXING - BJ

REV	Description	Version	Date
AE	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	NA	11/08/2021
AD	▪ This revision was skipped due to integration of internal documentation.	-	-
AC	▪ Updating of the documentation of the packaging procedure, which changed the internal code of the label used.	NA	23/01/2018
AB	▪ Changed the product label to comply with the new revision of CE directive.	NA	05/07/2016
AA	▪ Initial revision.	NA	05/06/2014

2.3.32 BCS–NX9405 – 12-TERMINAL CONNECTOR SCREW FIXING - BJ

REV	Description	Version	Date
AA	▪ Initial revision.	NA	17/07/2018

2.3.33 BCS–NX9406 – 18-TERMINAL CONNECTOR SCREW FIXING - BJ

REV	Description	Version	Date
AB	▪ Enhancements on internal documentation.	NA	04/09/2023
AA	▪ Initial revision.	NA	17/07/2018

2.3.34 BCS-NX5001 - PROFIBUS DP MASTER MODULE - BJ

REV	Description	Version	Date
BD	▪ Fixed an issue where the module could not enter in operational state if a new download is performed while the CPU is still in STOP (coming from a previous download). ▪ Fixed an issue where the module could eventually take a long time to enter in operational state after a download or project synchronization. ▪ Fixed an issue where the bPbusCommFail diagnostic could eventually turn on even if there is no problem on the network.	1.3.20.0	10/11/2025
BC	▪ Fixed a problem where the outputs could be cleared (zero) for a short	1.3.19.0	15/09/2025

	time during a PLC switchover when the size of input data of the PROFIBUS network is greater than 1.500 bytes. ▪ Fixed sporadic timeouts on DPV1 communication. ▪ Fixed a problem where the module could not enter in operational state (blinking E on LCD) or could indicate Watchdog Reset diagnostic after a download or project synchronization. ▪ Fixed a problem with CPU redundancy where the module could start the PROFIBUS network even with the CPU still in STOP. ▪ Fixed an issue where the module could take up to 4s (instead of 2s) to detect loss of bus master.		
BB	▪ Improvement in the power system related to In-rush current.	1.3.0.6	10/02/2025
BA	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.3.0.6	24/02/2023
AZ	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.3.0.6	30/07/2021
AY	▪ Fixed a problem where the diagnostic that informs the slave presence (abySlv_State[x]) could not indicate correctly the absence of the slave on the network when the project has a large number of slaves.	1.3.0.6	16/11/2020
AX	▪ Included protectors for the product connectors.	1.3.0.5	24/09/2020
AW	▪ Updated the internal code of the flash memory of the product.	1.3.0.5	19/07/2019
AV	▪ PROFIBUS Certification.	1.3.0.5	01/07/2019
AK-AU	▪ These revisions were skipped due to integration of internal documentation.	-	-
AJ	▪ Updated the product label for compliance of the UL certification, File Number E496087. ▪ Change in the product overlay to fix the opening of the display window.	1.3.0.2	11/06/2018
AI	▪ Changed burn-in time performed on manufacutring process.	1.3.0.2	10/05/2017
AH	▪ Changed the product label to comply with the new revision of CE directive.	1.3.0.2	22/09/2016
AG	▪ Homologation of alternative part numbers for components used on this product.	1.3.0.2	20/06/2016
AF	▪ Included the support for Scan for Devices feature.	1.3.0.2	15/01/2016
AE	▪ Included the support for DPV1 commands: Read Request and Write Request. ▪ Included the support to synchronize input data and output-data of DP-Slaves (Global Control Commands: Freeze/Unfreeze/Sync/Unsync). ▪ Included the support to new Project Profile called “Machine Profile”. ▪ Enhancements on configuration process of NX5001 during the startup.	1.2.0.6	22/07/2015
AD	▪ Approval on EtherCAT Conformance Test.	1.1.1.4	13/06/2014
AB	▪ RoHS compliant revison.	1.1.1.1	31/01/2013
AA	▪ Initial revision.	1.1.0.16	24/10/2012

2.3.35 BCS-NX5000 - ETHERNET MODULE - BJ

REV	Description	Version	Date
AV	▪ Improvement in the power system related to In-rush current.	1.2.5.0	10/02/2025
AU	▪ Fixed a problem on closing TCP/IP connections which could cause sporadic communication failures.	1.2.5.0	02/10/2024
AT	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.2.0.3	18/10/2023
AS	▪ Updated UL Mark adding cUL (Canada). Due to the process of	1.2.0.3	30/07/2021

	introduction on production line, this update may be present in some units before this revision.		
AR	▪ Included protectors for the product connectors.	1.2.0.3	24/09/2020
AQ	▪ Updated the product label for compliance of the UL certification, File Number E496087. ▪ Updated the internal code of the flash memory of the product.	1.2.0.3	19/07/2019
AJ - AP	▪ These revisions were skipped due to integration of internal documentation.	-	-
AI	▪ Changed burn-in time performed on manufacutring process.	1.2.0.3	05/10/2017
AH	▪ Changed the product label to comply with the new revision of CE directive.	1.2.0.3	22/09/2016
AG	▪ Homologation of alternative part numbers for components used on this product.	1.2.0.3	20/06/2016
AF	▪ Fixed a compatiblity issue of NIC Teaming functionality with the Ethernet module of AL Series model AL-3414.	1.2.0.3	25/01/2016
AE	▪ Added support to project profile “Machine Profile”.	1.2.0.1	23/07/2015
AD	▪ Approval on EtherCAT Conformance Test.	1.0.1.4	12/06/2014
AB	▪ RoHS compliant revision.	1.0.1.1	31/01/2013
AA	▪ Initial revision.	1.0.0.10	24/10/2012

2.3.36 BCS-NX5110 - PROFIBUS DP HEAD - BJ

REV	Description	Version	Date
BF	▪ Fixed an issue introduced in firmware version 1.14.71.0 that prevented communication with a Class 2 master.	1.14.74.6	21/08/2026
BE	▪ New version due to the shared software platform with NX5210, with no impact on this model.	1.14.74.5	03/08/2026
BD	▪ Fixed an issue where the display of input modules did not update with the actual values when the head had not yet received its configuration. ▪ Updated product hardware subassembly document to approval of alternative component PN to optimize the automatic assembly process.	1.14.74.0	10/11/2025
BC	▪ Updated product hardware subassembly document to fix an issue where the PROFIBUS communication line was incorrectly activated and kept silent for 250ms during power-up. ▪ New graphical design of System Web Page. ▪ Included support for expansion and parameter change of I/O modules with no interruption (requires a redundant PLC). ▪ Included support to "Output behavior when CPU is in STOP" parameter for NX2001 module (requires BCS Tools v3.75 or greater). ▪ Included support to a configurable engineering scale: -30000 to 30000 (default) and 0 to 30000 (new) (requires BCS Tools v3.75 or greater). ▪ Included support to a new diagnostic that informs the firmware version ID, which allows to identify the firmware version remotely (check the user manual). ▪ Fixed an incompatibility issue introduced in the firmware version 1.2.3.0 where the NJ modules stopped to work.	1.14.71.0	26/09/2025
BB	▪ Updated product subassembly document to correct interference on the Profibus network caused by multiple devices de-energized and connected to the network.	1.2.3.2	14/08/2025
BA	▪ Updated product subassembly document due to approval of alternative component PN due to market unavailability.	1.2.3.2	19/05/2025
AZ	▪ Included support to a new part number of LCD display (no change in visual and/or functionality).	1.2.3.2	03/04/2025
AY	▪ This new product revision refers to changes in internal documentation, in which similar products were changed, which did not affect this product.	1.2.3.0	15/10/2024
AX	▪ Internal firmware modifications, with no impact on product functionalities.	1.2.3.0	21/11/2023
AW	▪ Updated the product label that was changed to contain a QR Code and a	1.2.0.0	16/11/2023

	link to its technical documentation and also to include UKCA certification.		
AV	▪ New format of firmware update file. This update requires the controller running on firmware version 1.1.2.12 or greater. ▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface. ▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.2.0.0	26/07/2021
-	▪ Changed firmware update mechanism to include support for the new file format that will be introduced on upcoming versions.	1.1.2.12	26/07/2021
AU	▪ Removed the hidden page “getlogs” from the system web page to improve cyber security.	1.1.2.10	13/01/2021
AT	▪ Included protectors for the product connectors.	1.1.2.8	24/09/2020
AS	▪ Fixed a problem introduced on previous version related to diagnostic indication.	1.1.2.8	01/07/2019
AR	▪ PROFIBUS Certification.	1.1.2.7	08/04/2019
AQ	▪ Included support for Nexto Safety modules. ▪ Updated the product label for compliance of the UL certification, File Number E496087.	1.1.2.5	12/02/2019
AN-AP	▪ These revisions were skipped due to integration of internal documentation.	-	-
AM	▪ Changed burn-in time performed on manufacutring process.	1.1.1.16	05/10/2017
AL	▪ Homologation of alternative part numbers for components used on this product.	1.1.1.16	11/01/2017
AK	▪ Enhancements in performance of the modules hot-swap circuit.	1.1.1.16	13/12/2016
AJ	▪ New revision of the PCB due to increase the power supply’s performance (hot swap when in redundant mode). ▪ Changed the product label to comply with the new revision of CE directive.	1.1.1.16	06/09/2016
AI	▪ Homologation of alternative part numbers for components used on this product.	1.1.1.16	25/05/2016
AH	▪ Included support for Nexto Jet solution for modules BCS-NJ1001, BCS-NJ2001, BCS-NJ6000, BCS-NJ6010, BCS-NJ6020 and BCS-NJ6100. ▪ Fixed a compatibility issue with PROFIBUS Master from AL Series AL-3406	1.1.1.16	15/01/2016
AG	▪ Included support for Scan Devices feature. ▪ Included support for NX9010 rack.	1.1.0.6	15/09/2015
AF	▪ Enhancements on the safe state of analog output channels.	1.0.0.25	06/05/2015
AE	▪ Enhancements on configuration process of I/O modules during the startup.	1.0.0.15	29/01/2015
AD	▪ Included support for NX9999 e NX9000.	1.0.0.12	15/12/2014
AA	▪ Initial revision.	1.0.0.0	10/10/2014

2.3.37 BCS-NX5210 – REDUNDANT PROFIBUS DP HEAD - BJ

REV	Description	Version	Date
BD	▪ Fixed an issue introduced in firmware version 1.14.71.0 that prevented communication with a Class 2 master.	1.14.74.6	21/08/2026
BC	▪ Fixed an issue where the head could randomly enter the Error state after extended periods of operation.	1.14.74.5	03/08/2026
BB	▪ Improved firmware update security to allow updating the PROFIBUS head only when in Offline mode. ▪ Fixed a potential issue where the head entered an Error state after a hotswap. ▪ Fixed an issue where the display of input modules did not update with the actual values when the head had not yet received its configuration. ▪ Updated product hardware subassembly document to approval of alternative component PN to optimize the automatic assembly process.	1.14.74.0	10/11/2025

BA	▪ Updated product hardware subassembly document to fix an issue where the PROFIBUS communication line was incorrectly activated and kept silent for 250ms during power-up. ▪ New graphical design of System Web Page. ▪ Included support for expansion and parameter change of I/O modules with no interruption (requires a redundant PLC). ▪ Included support to "Output behavior when CPU is in STOP" parameter for NX2001 module (requires BCS Tools v3.75 or greater). ▪ Included support to a configurable engineering scale: -30000 to 30000 (default) and 0 to 30000 (new) (requires BCS Tools v3.75 or greater). ▪ Included support to a new diagnostic that informs the firmware version ID, which allows to identify the firmware version remotely (check the user manual). ▪ Fixed an incompatibility issue introduced in the firmware version 1.2.3.0 where the NJ modules stopped to work. ▪ Fixed a problem where the Standby head could sporadically get into Active state, forcing the other head permanently to Error state. ▪ Fixed a problem where the PROFIBUS head could eventually go to offline after a switch over or hotswap.	1.14.71.0	26/09/2025
AZ	▪ Updated product subassembly document to correct interference on the Profibus network caused by multiple devices de-energized and connected to the network.	1.2.3.2	14/08/2025
AY	▪ Updated product subassembly document due to approval of alternative component PN due to market unavailability.	1.2.3.2	19/05/2025
AW	▪ Included support to a new part number of LCD display (no change in visual and/or functionality).	1.2.3.2	03/04/2025
AV	▪ This new product revision refers to changes in internal documentation, in which similar products were changed, which did not affect this product	1.2.3.0	10/01/2025
AU	▪ Internal firmware modifications, with no impact on product functionalities.	1.2.3.0	21/11/2023
AT	▪ Updated the product subassembly document due to the approval of an alternative PN of the component (00.960.143-0) PN: SFCS302405C from the manufacturer Cosel and for the inclusion of special formatting instructions for this component.	1.2.0.0	06/09/2023
AS	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.2.0.0	04/09/2023
AR	▪ New format of firmware update file. This update requires the controller running on firmware version 1.1.2.12 or greater. ▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface. ▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.2.0.0	26/07/2021
-	▪ Changed firmware update mechanism to include support for the new file format that will be introduced on upcoming versions.	1.1.2.12	26/07/2021
AQ	▪ Removed the hidden page “getlogs” from the system web page to improve cyber security.	1.1.2.10	13/01/2021
AP	▪ Included protectors for the product connectors.	1.1.2.8	24/09/2020
AO	▪ Fixed a problem introduced on previous version related to diagnostic indication.	1.1.2.8	01/07/2019
AN	▪ PROFIBUS Certification.	1.1.2.7	08/04/2019
AM	▪ Included support for Nexto Safety modules. ▪ Updated the product label for compliance of the UL certification, File Number E496087. ▪ Change in the product overlay to fix the opening of the display window.	1.1.2.5	12/01/2019
AK-AL	▪ These revisions were skipped due to integration of internal	-	-

	documentation.		
AJ	▪ Changed burn-in time performed on manufacutring process.	1.1.1.16	05/10/2017
AI	▪ Homologation of alternative part numbers for components used on this product.	1.1.1.16	11/01/2017
AH	▪ Enhancements in performance of the modules hot-swap circuit.	1.1.1.16	13/12/2016
AG	▪ Changed the product label to comply with the new revision of CE directive.	1.1.1.16	23/09/2016
AF	▪ Homologation of alternative part numbers for components used on this product.	1.1.1.16	25/05/2016
AE	▪ Included support for Nexto Jet solution for modules BCS-NJ1001, BCS-NJ2001, BCS-NJ6000, BCS-NJ6010, BCS-NJ6020 and BCS-NJ6100. ▪ Fixed a compatibility issue with PROFIBUS Master from AL Series AL-3406 ▪ Enhancements on the redundancy feature.	1.1.1.16	15/01/2016
AD	▪ Included support for Scan Devices feature. ▪ Included support for NX9010 rack.	1.1.0.6	15/09/2015
AC	▪ Enhancements on the safe state of analog output channels.	1.0.0.25	06/05/2015
AB	▪ Enhancements on configuration process of I/O modules during the startup. ▪ Enhancements to the network redundancy algorithm.	1.0.0.15	29/01/2015
AA	▪ Initial revision.	1.0.0.12	15/12/2014

2.3.38 BCS-NX5100 – MODBUS TCP HEAD – BJ

REV	Description	Version	Date
AR	▪ Support for BCS Tools 3.77. ▪ Fixed a problem that could result in session timeout during the download of large projects. ▪ Fixed issue where the System State diagnostic shows “Stop” instead of “No Application” after a Reset Origin. ▪ Fixed an issue where the state of digital inputs on I/O module display would not update until the CPU starts to configure it. ▪ Fixed issue where the controller fails to change IP through the OTD button. ▪ Removed the option to set IP by application in the Network tab in the System Web page. ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.	1.14.86.0	04/03/2026
AQ	▪ Included support to a new part number of LCD display (no change in visual and/or functionality). ▪ Improvements on System Web Page to enhance the reliability and usability. ▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using “enforced encryption” option. ▪ Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected.	1.14.36.7	03/04/2025
AP	▪ Support for BCS Tools 3.61	1.14.20.0	14/02/2024
AO	▪ Support for BCS Tools 3.52 ▪ New graphical design of System Web Page	1.12.29.0	05/09/2023
AN	▪ Updated the product label for compliance of the UL certification, File Number E496087.	1.12.23.0	01/08/2023
AM	▪ Improvements on System Web Page: ▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer. ▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default.	1.12.23.0	22/06/2023

	▪ Optimization in the time required to perform the firmware update process.		
AL	▪ No modification in the product (production documentation changed).	1.12.5.3	30/05/2023
AK	▪ Support for BCS Tools 3.40. ▪ Fixed possible issue where the Web Page turns unaccesible after using it for a very long time. ▪ Fixed potential exception when an application is removed (reset origin).	1.12.5.3	15/12/2022
AJ	▪ Minor improvement in the production process. ▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.11.2.0	28/11/2022
AI	▪ New format of firmware update file. This update requires the controller running on firmware version 1.9.29.0 or greater. ▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface. ▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.11.2.0	26/07/2021
-	▪ Changed firmware update mechanism to include support for the new file format that will be introduced on upcoming versions. ▪ Improvements in “one touch diag” feature.	1.9.29.0	26/07/2021
AH	▪ Removed the hidden page “getlogs” from the system web page to improve cyber security. ▪ Fixed a problem that could cause corruption of operating system in case of engergy interruption during a specific moment of power-up process, leading the controller to a permanent inoperative state. ▪ Fixed a problem related to the system webpage cache. This eliminates the need of clearing the cache on browser side, which was previously required under some circumstances to show the page correctly.	1.9.25.0	13/01/2021
AG	▪ Included protectors for the product connectors.	1.8.11.0	24/09/2020
AF	▪ Fixed maximum number of ARTI/OPC DA connections from 4 to 8.	1.8.11.0	09/01/2020
AE	▪ Changes in the source code shared with other controllers, which doesn’t affect the behaviour of this product.	1.7.17.0	11/03/2019
AD	▪ This revision was skipped due to integration of internal documentation	-	-
AC	▪ Oficial revision after conclusion of the development.	1.0.0.5	29/06/2017
AA-AB	▪ Initial revision.	1.0.0.1	09/05/2017

2.3.39 BCS-NX5101 – MODBUS TCP HEAD, 14 DI, 10 DOT (NO HOTSWAP) - BJ

REV	Description	Version	Date
AO	▪ Support for BCS Tools 3.77. ▪ Fixed a problem that could result in session timeout during the download of large projects. ▪ Fixed issue where the System State diagnostic shows “Stop” instead of “No Application” after a Reset Origin. ▪ Fixed an issue where the state of digital inputs on I/O module display would not update until the CPU starts to configure it. ▪ Fixed issue where the controller fails to change IP through the OTD button. ▪ Removed the option to set IP by application in the Network tab in the System Web page. ▪ Info: This version was built with CODESYS Control Runtime	1.14.86.0	04/03/2026

	Toolkit 3.5.18.60.		
AN	▪ Included support to a new part number of LCD display (no change in visual and/or functionality). ▪ Improvements on System Web Page to enhance the reliability and usability. ▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using “enforced encryption” option. ▪ Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected.	1.14.36.7	03/04/2025
AM	▪ Support for BCS Tools 3.61	1.14.20.0	08/02/2024
AL	▪ Support for BCS Tools 3.52 ▪ New graphical design of System Web Page	1.12.29.0	05/09/2023
AK	▪ Improvements on System Web Page: ▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer. ▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default. ▪ Optimization in the time required to perform the firmware update process.	1.12.23.0	22/06/2023
AJ	▪ No modification in the product (production documentation changed).	1.12.5.3	19/05/2023
AI	▪ Hardware improvement to suport new PHY component (shortage issue)	1.12.5.3	05/04/2023
AH	▪ Fixed hardware problem where the power source does not turn on when the bus is with full load.	1.12.5.3	24/01/2023
AG	▪ Support for BCS Tools 3.40. ▪ Fixed possible issue where the Web Page turns unaccesible after using it for a very long time. ▪ Fixed potential exception when an application is removed (reset origin).	1.12.5.3	15/12/2022
AF	▪ New format of firmware update file. This update requires the controller running on firmware version 1.9.29.0 or greater. ▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface.	1.11.2.0	26/07/2021
-	▪ Changed firmware update mechanism to include support for the new file format that will be introduced on upcoming versions. ▪ Improvements in “one touch diag” feature.	1.9.29.0	26/07/2021
AE	▪ Removed the hidden page “getlogs” from the system web page to improve cyber security. ▪ Fixed a problem related to the system webpage cache. This eliminates the need of clearing the cache on browser side, which was previously required under some circumstances to show the page correctly.	1.9.25.0	13/01/2021
AD	▪ Included support for visualization of the integrated I/O by LCD (menu Hardware). ▪ Fixed a problem that could cause corruption of operating system in case of engergy interruption during a specific moment of power-up process, leading the controller to a permanent inoperative state. ▪ Fixed “wrong slot” problem related to the usage of the NX9020 rack. ▪ Fixed the problem where the Web page don’t update its elements properly.	1.9.8.0	09/11/2020
AC	▪ Included protectors for the product connectors.	1.7.9.0	24/09/2020
AB	▪ Changed bootloader from version 1.0.0.13 to 1.0.0.14 due to code sharing with CPU, but with no functional modification on this product since it dont have RS-485 interface.	1.7.9.0	06/11/2019

AA	▪ Initial revision.	1.7.9.0	04/02/2019

2.3.40 BCS–NJ1001 – 24 VDC 16 DI MODULE NEXTO JET - BJ

REV	Description	Version	Date
AN	▪ Updated the board's printed circuit, aiming to optimize the performance of the assembly process and welding reliability.	1.2.0.20	30/01/2026
AM	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product.	1.2.0.20	23/01/2023
AL	▪ UKCA Certification marking included on product.	1.2.0.20	14/10/2022
AK	▪ Minor improvement in the external mechanics of the product, without significant impact.	1.2.0.20	16/11/2021
AG-AJ	▪ These Reviews were ignored due to the integration of internal documentation	-	-
AF	▪ Inclusion of the Installation Guide in the product BOM. ▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.E496087	1.2.0.20	17/05/2018
AE	▪ Changes in the test system for including new product. ▪ Changes the time of Burn In.	1.2.0.20	15/08/2017
AD	▪ Enhancement in factory process.	1.2.0.20	31/08/2016
AC	▪ Changed the product label to comply with the new revision of CE directive.	1.2.0.20	06/06/2016
AB	▪ Homologation of alternative part numbers for components used on this product.	1.2.0.20	19/05/2016
AA	▪ Initial revision.	1.2.0.20	16/10/2015

2.3.41 BCS–NJ1005 – 24 VDC 8 DOT/8 DI MIXED MODULE NEXTO JET - BJ

REV	Description	Version	Date
AE	▪ This new product revision refers to changes in internal documentation, in which similar products were changed, which did not affect this product.	1.2.0.7	18/05/2023
AD	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.2.0.7	14/04/2023
AC	▪ Minor improvement in the external mechanics of the product, without significant impact.	1.2.0.7	22/03/2022
AB	▪ Integration of internal documentation.	1.2.0.7	15/05/2020
AA	▪ Initial revision.	1.2.0.7	15/08/2017

2.3.42 BCS–NJ2001 – 24 VDC 16 DO TRANSISTOR MODULE NEXTO JET -BJ

REV	Description	Version	Date
AM	▪ Updated the board's printed circuit, aiming to optimize the performance of the assembly process and welding reliability.	1.2.0.8	23/04/26
AL	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.2.0.8	01/03/23

AK	▪ Minor improvement in the external mechanics of the product, without significant impact.	1.2.0.8	16/12/2021
AH-AJ	▪ These revisions were skipped due to integration of internal documentation.	-	-
AG	▪ Inclusion of the Installation Guide in the product BOM. ▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.E496087	1.2.0.8	17/05/2018
AF	▪ Changes in the test system for including new product. ▪ Changes the time of Burn In.	1.2.0.8	15/08/2017
AE	▪ This new review of the product is related to improvements in the production process. Due to the inclusion of universal pallets in the assembly.	1.2.0.8	17/10/2016
AD	▪ Enhancement in factory process.	1.2.0.8	31/08/2016
AC	▪ Changed the product label to comply with the new revision of CE directive.	1.2.0.8	06/06/2016
AB	▪ Homologation of alternative part numbers for components used on this product.	1.2.0.8	19/05/2016
AA	▪ Initial revision.	1.2.0.8	16/10/2015

2.3.43 BCS–NJ6000 – 8 AI VOLTAGE/CURRENT MODULE NEXTO JET – BJ

REV	Description	Version	Date
AP	▪ This new product revision refers to the minor changes in the product hardware to implement improvements related to the inrush current.	1.4.0.0	27/07/2023
AO	▪ This new product revision refers to the minor changes in the product hardware to implement improvements related to the inrush current.	1.4.0.0	13/06/2023
AN	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.4.0.0	17/04/2023
AM	▪ Minor improvement in the external mechanics of the product, without significant impact.	1.4.0.0	16/12/2021
AL	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.4.0.0	29/07/2021
AK	▪ Enhancement in factory process.	1.4.0.0	06/05/2020
AJ	▪ Included support for the new option “Disabled” for the parameter “Open Loop Value”.	1.4.0.0	03/09/2019
AI	▪ Small text correction on Installation Guide	1.3.0.7	06/12/2018
AH	▪ Enhancements of diagnostics detection of analog inputs. ▪ Fixed an issue where the module could take up to 4s (instead of 2s) to detect loss of bus master. ▪ Inclusion of the Installation Guide in the product BOM. ▪ Updated the product label for compliance of the UL certification, File Number E496087.	1.3.0.7	15/02/2018
AG	▪ This new product revision is related to modifications for including other module in test system.	1.3.0.3	15/09/2017
AF	▪ Enhancements on immunity against electromagnetic interference.	1.3.0.3	10/08/2016
AE	▪ Changed the product label to comply with the new revision of CE directive.	1.3.0.1	31/05/2016
AD	▪ Enhancement in factory process.	1.3.0.1	13/05/2016
AC	▪ Homologation of alternative part numbers for components used on this product.	1.3.0.1	11/05/2016
AB	▪ Hardware enhancements.	1.3.0.1	16/11/2015
AA	▪ Initial revision.	1.3.0.1	24/09/2015

2.3.44 BCS-NJ6001 – 6 AI V/I MODULE NEXTO JET 12 BITS – BJ

REV	Description	Version	Date
AI	▪ This new product revision refers to changes in internal documentation, in which similar products were changed, which did not affect this product.	1.1.0.1	10/05/2023
AH	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.1.0.1	19/12/2022
AG	▪ Minor improvement in the external mechanics of the product, without significant impact.	1.1.0.1	22/03/2022
AF	▪ Enhancement in factory process.	1.1.0.1	15/05/2020
AE	▪ Included support for 4-20 scale and for the new parameter “Open Circuit Value”.	1.1.0.1	03/09/2019
AB-AD	▪ These revisions were skipped due to integration of internal documentation.	-	-
AA	▪ Initial revision.	1.0.0.14	08/05/2018

2.3.45 BCS–NJ6005 – 6 AI/4 AO V/I MIXED MODULE NEXTO JET – BJ

REV	Description	Version	Date
AN	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.1.0.1	19/01/2023
AM	▪ Minor improvement in the external mechanics of the product, without significant impact.	1.1.0.1	22/03/2022
AL	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.1.0.1	30/07/2021
AK	▪ Enhancement in factory process.	1.1.0.1	15/05/2020
AJ	▪ Included support for 4-20 scale and for the new parameter “Open Circuit Value”.	1.1.0.1	03/09/2019
AB-AI	▪ These revisions were skipped due to integration of internal documentation.	-	-
AA	▪ Initial revision.	1.0.0.14	08/05/2018

2.3.46 BCS–NJ6010 – 8 AI THERMOCOUPLE MODULE NEXTO JET – BJ

REV	Description	Version	Date
AP	▪ This new product revision refers to the minor changes in the product hardware to implement improvements related to the inrush current.	1.0.0.16	27/07/2023
AO	▪ This new product revision refers to the minor changes in the product hardware to implement improvements related to the inrush current.	1.0.0.16	19/06/2023
AN	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.0.0.16	12/04/2023
AM	▪ Enhancements on immunity against electromagnetic interference.	1.0.0.16	26/10/2022
AL	▪ Minor improvement in the external mechanics of the product, without significant impact.	1.0.0.14	22/03/2022
AK	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some	1.0.0.14	30/07/2021

	units before this revision.		
AJ	▪ Enhancement in factory process.	1.0.0.14	15/05/2020
AI	▪ Change in the firmware source code to add a new module (BCS-NJ6011) on compilation scope. ▪ Inclusion of the Installation Guide in the product BOM. ▪ Updated the product label for compliance of the UL certification, File Number E496087	1.0.0.14	17/05/2018
AH	▪ This new product revision is related to modifications for including other module in test system.	1.0.0.13	15/09/2017
AG	▪ Additional enhancements on immunity against electromagnetic interference.	1.0.0.11	10/08/2016
AF	▪ Enhancements on immunity against electromagnetic interference.	1.0.0.9	08/07/2016
AE	▪ Changed the product label to comply with the new revision of CE directive.	1.0.0.6	20/05/2016
AD	▪ Enhancement in factory process.	1.0.0.6	13/05/2016
AC	▪ Homologation of alternative part numbers for components used on this product.	1.0.0.6	11/05/2016
AB	▪ Hardware enhancements.	1.0.0.6	30/11/2015
AA	▪ Initial revision.	1.0.0.6	25/09/2015

2.3.47 BCS–NJ6011 – MIXED ANALOG MODULE NEXTO JET – BJ

REV	Description	Version	Date
AJ	▪ This new product revision refers to the minor changes in the product hardware to implement improvements related to the inrush current.	1.0.0.16	27/07/2023
AI	▪ This new product revision refers to the minor changes in the product hardware to implement improvements related to the inrush current.	1.0.0.16	20/06/2023
AH	▪ This new product revision refers to changes in internal documentation, in which similar products were changed, which did not affect this product.	1.0.0.16	16/05/2023
AG	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.0.0.16	12/04/2023
AF	▪ Enhancements on immunity against electromagnetic interference.	1.0.0.16	26/10/2022
AE	▪ Minor improvement in the external mechanics of the product, without significant impact.	1.0.0.14	22/03/2022
AD	▪ Enhancement in factory process.	1.0.0.14	15/05/2020
AB-AC	▪ These revisions were skipped due to integration of internal documentation.	-	-
AA	▪ Initial revision.	1.0.0.14	08/05/2018

2.3.48 BCS–NJ6020 – 8 AI RTD MODULE NEXTO JET – BJ

REV	Description	Version	Date
AO	▪ This new product revision refers to the minor changes in the product hardware to implement improvements related to the inrush current.	1.1.0.8	27/07/2023
AN	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.1.0.8	18/04/2023
AM	▪ This new product revision refers to changes in internal documentation, in which similar products were changed, which did not affect this	1.1.0.8	06/01/2022

	product.		
AL	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.1.0.8	29/07/2021
AK	▪ Support for the new hardware revision which introduces additional improvements to immunity against electromagnetic interferences.	1.1.0.8	29/09/2020
AJ	▪ Integration of internal documentation.	1.1.0.3	24/06/2020
AI	▪ Small text correction on Installation Guide ▪ Updated the product label for compliance of the UL certification, File Number E496087.	1.1.0.3	06/12/2018
AH	▪ This revision was skipped due to integration of internal documentation.	-	-
AG	▪ Inclusion of the Installation Guide in the product BOM.	1.1.0.3	17/05/2018
AF	▪ Changes in the test system for including new product. ▪ Changes the time of Burn In.	1.1.0.3	15/09/2017
AE	▪ Improved immunity against electromagnetic interferences.	1.1.0.3	13/01/2017
AD	▪ Changed the product label to comply with the new revision of CE directive.	1.1.0.1	11/07/2016
AC	▪ Homologation of alternative part numbers for components used on this product.	1.1.0.1	18/05/2016
AB	▪ Hardware enhancements.	1.1.0.1	29/01/2016
AA	▪ Initial revision.	1.1.0.1	31/07/2015

2.3.49 BCS–NJ6100 – 4 AO VOLTAGE/CURRENT MODULE NEXTO JET – BJ

REV	Description	Version	Date
AO	▪ Small changes in the product's hardware to remove decoupling capacitors that were inserted in the last revision of the product, but do not need to be mounted on the printed circuit board.	1.2.0.9	22/02/2023
AN	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.2.0.9	02/01/2023
AM	▪ Minor improvement in the external mechanics of the product, without significant impact.	1.2.0.9	22/03/2022
AL	▪ Updated UL Mark adding cUL (Canada). Due to the process of introduction on production line, this update may be present in some units before this revision.	1.2.0.9	26/07/2021
AK	▪ Enhancement in factory process.	1.2.0.9	15/05/2020
AJ	▪ Small text correction on Installation Guide	1.2.0.9	10/12/2018
AI	▪ Inclusion of the Installation Guide in the product BOM. ▪ Updated the product label for compliance of the UL certification, File Number E496087.	1.2.0.9	17/05/2018
AH	▪ Changes in the test system for including new product. ▪ Changes the time of Burn In.	1.2.0.9	15/09/2017
AG	▪ This new product revision is related the inclusion in news part numbers for internal codes with same electrical characteristics and with RoHS compliance.	1.2.0.9	05/10/2016
AF	▪ Changed the product label to comply with the new revision of CE directive.	1.2.0.9	22/07/2016
AE	▪ Enhancement in factory process.	1.2.0.9	13/05/2016
AD	▪ Homologation of alternative part numbers for components used on this product.	1.2.0.9	11/05/2016
AC	▪ Internal firmware modifications, with no impact on product functionalities.	1.2.0.9	27/01/2016
AB	▪ Hardware enhancements.	1.2.0.7	20/11/2015

AA	▪ Initial revision.	1.2.0.7	13/07/2015

2.3.50 BCS–NJ6101 – 4 AO V/I MODULE NEXTO JET 12 BITS – BJ

REV	Description	Version	Date
AI	▪ Change of the product label, which now includes a QR Code with the path to the Technical Documentation of the product on the website. This change makes it unnecessary to follow the Installation Guide with the product. ▪ UKCA Certification marking included on product.	1.1.0.1	14/04/2023
AH	▪ Minor improvement in the external mechanics of the product, without significant impact.	1.1.0.1	22/03/2022
AG	▪ Enhancement in factory process.	1.1.0.1	15/05/2020
AF	▪ Included support for 4-20 scale.	1.1.0.1	03/09/2019
AB-AE	▪ These revisions were skipped due to integration of internal documentation.	-	-
AA	▪ Initial revision.	1.0.0.14	08/05//2018

2.3.51 GSD Files - PROFIBUS DP HEAD NX OEM

REV	Description	Scope	Version	Date
AD	▪ Included support to "Output behavior when CPU is in STOP" parameter for the NX2001 (requires firmware 1.14.71.0 or greater). ▪ Included support to a configurable engineering scale: -30000 to 30000 (default) and 0 to 30000 (new). Requires firmware 1.14.71.0 or greater.	GSD	1.0.1.7	10/11/2025
AC	▪ Internal modifications, with no impact on product functionalities.	GSD	1.0.1.6	21/11/2023
AB	▪ Included new scales for NX6000 and NX6020 modules. ▪ Included the file ALNJ0EDD.GSD, with support for the I/O Modules of Nexto Jet solution.	GSD	1.0.1.4	08/12/2015
AA	▪ Initial revision.	GSD	1.0.0.0	10/09/2015

3. BCS Tools Series

3.1 MT9000 – BCS Tools/LITE - BCS Tools/ADV – BCS Tools/UNITED

REV	Description	Version	Date
AB	• Added support for Switch and NIC Teaming modes on XF3xx controllers. • Updated GN-9222 Profibus DP device. • Updated M and G series PIO devices. • Updated LD Editor with general improvements. • Changed the rules for using M Series Power Supply in Distributed IO Configurator. • Changed the minimum MODBUS Slave task interval from 20 ms to 5 ms. • Fixed an issue on LD Editor where parallel branch gets broken when removing contact before math operator. • Fixed the incorrect Gain/Offset when exporting tags for iX Developer. • Fixed update project issues (copy of Serial, Ethernet and CAN parameters) when changing CPU model. • Removed GN-9481/9482/9483 from Device Repository.	4.1.0	30/06/2026

	• Info: This version was built with CODESYS Development System 3.5.18.60.		
AA	First release of MT9000 - BCS Tools, the next evolution of BCS Tools programming tool. Based on version 3.77 of MT8500 - BCS Tools, this release introduces a new version numbering scheme, starting at 4.0.0, and brings architectural improvements that establish a strong technical foundation for upcoming features and continued platform evolution. Highlights • Support for new Nexto XF controllers, Nexto XP, NX3008, X2/BoX2 (SP18 only) and PIO (SP17 only). • New Project Wizard, providing a more intuitive workflow and updated device selection. • New Project Profiles, with simplified options and more flexibility on IEC Tasks and POUs. • Native 64-bit architecture support, improving performance and memory usage for large projects. • New simplified license model: Lite and Advanced (1 year or perpetual). Additional changes • Increased the symbolic memory size of NX3008 CPU from 12 MB to 40 MB. • Removed support for SP11 (PIO) and SP13 (X2, BoX2). Info: This version was built with CODESYS Development System 3.5.18.60.	4.0.0	02/04/2026

3.2 MT8500 – BCS Tools/ADV – BCS Tools/LITE - BCS Tools/PRO - BCS Tools/BASIC – BCS Tools/UNITED

REV	Description	Version	Date
BL	• Changed the communication driver validation introduced in version 3.77 so that exceeding the documented driver limit per NET interface generates a warning instead of a compilation error, improving compatibility with legacy projects. • Fixed an issue in the MODBUS Symbolic drivers that could cause incorrect data updates when transferring blocks spanning multiple mapped array variables. • Fixed a compatibility issue that could prevent Easy Connection from working on computers with Npcap installed. For this fix to work, Npcap must be installed with the "WinPcap API-compatible Mode" option enabled. • Updated the PROFIBUS baud rate validation introduced in version 3.76 to allow baud rates below 1500 kb/s in redundant applications when the network contains only third-party PROFIBUS devices. • Info: This version was built with CODESYS Development System 3.5.18.60.	3.78	01/09/2026
BK	• Added EDS files for XP3xx on EtherNet/IP Remote mode. • Added CODESYS Library Documentation Support package. • Added diagnostic variable for enable/disable state of Memory Card and USB on CPUs that support these features. • Added informational messages in the compiler indicating the total number of mapped points and mappings used in the application. • Changed the refresh rate of "Connected Clients" in the status bar from 1s to 60s. • Fixed a compilation error caused by using more than 20,480 Modbus mappings (introduced in version 3.76). • Improvements in the WHSB bus error diagnostic detection. • Info: This version was built with CODESYS Development System 3.5.18.60.	3.77	02/03/2026
BJ	• Added support in the Distributed IO Configurator to customize module identification names.	3.76	15/12/2025

	• Added support in the Distributed IO Configurator to copy and paste modules. • Added support in the Distributed IO Configurator to drag-and-drop module to any position, with position indicators during movement. • Added support in the Distributed IO Configurator to select multiple modules and move them via drag-and-drop. • Added support in the Distributed IO Configurator to ignore specific configuration conflicts. • Added new Function Blocks in LibHART for reading HART dynamic variables (PV, SV, TV, QV). • Added a new object HART with a wizard to create a POU for HART communication. • Changed the watchdog time of PROFIBUS slaves on redundant PLC architectures from 1s to 2s. • Changed the order of BOM columns, moving Count to first position. • Fixed an issue on I/O Simulator which could cause a crash when using variables of REAL type. • Fixed an issue in LibSparkplug where the EON did not respond to rebirth commands when no alias was configured. • Fixed an issue in Modbus Symbol Server that could return incorrect values when reading coils or input status. • Fixed an issue in the Project Update mechanism where version information could be lost when updating older projects. • Fixed an issue where the NX5000 could fail to communicate over MODBUS after stopping the driver multiple times. • Fixed issues affecting the GT-3804, GT-3091, and GT-3C94 modules. • Fixed an issue where it was possible to add an EtherCAT SoftMotion Master on a network interface that already have other driver. • Removed support for Remote I/O Mode on the XP340. • Info: This version was built with CODESYS Development System 3.5.18.60.		
BH - BI	• Added GL-9089 and ML9089 MODBUS device. • Added support for GT-121F, GT-122F, GT-123F, GT-1278, GT-22BA, GT-22CA, GT-12FA, GT-1358, GT-1428, GT-1658, GT-221F, GT-222F, GT-2338, GT-2358, GT-2368, GT-2738, GT-2788, GT-311F, GT-3714, GT-3758, GT-3808, GT-442F, GT-5102, GT-5122, GT-5142, GT-5211, GT-5231, GT-5422, GT-5424, GT-5444, GT-5642, M1238, M3114, M4214, M5442, and M5758 modules on Distributed IO Configurator. • Added firmware version number in NX5x10 diagnostics. • Added a new parameter (checkbox) in Modbus Server drivers to allow connections from other ethernet interfaces. • Added notification for NX5x10 firmware version when updating projects with old GSD files (the new GSD requires firmware version 1.14.0.0 or higher). • Added option to suppress NX3008 current consumption dialog. • Added a new parameter on NX2001 which allows to select the output behavior when the CPU is in STOP (requires firmware version 1.2.0.10 and 1.0.21.0 or higher, respectively). • Added warning in Easy Connection confirmation message to inform about initialization of retain/persistent memory. • Fixed a problem introduced on version 3.51 where the Project Update would cause an unintended modification in redundant areas (Special_Variables_Redundant GVL), preventing the non-active PLC to get into Stand-by state after a download with project synchronization disabled. • Fixed configuration issues with GT-3C74, GT-3C78, GT-3C94, and GT-3C98 modules in the Distributed IO Configurator. • Changed the default MainTask interval to 100ms for NX CPUs.	3.75	30/09/2025

	• Changed the messages during Project Update and Firmware Version check to inform the user about the conditions and consequences of an update, helping to avoid unnecessary modifications and interruptions to the control system. • Changed the default option of “Enable diagnosis for devices” in the PLC Settings to Disabled (it was enabled in version 3.40). • Changed Device Configurator for BFI & BSD EtherCAT removing “StartConfigWithLessDevice” from the default generated code. • Changed the default gateway address to 0.0.0.0 for Ethernet interfaces other than NET1. • Changed the default value of “Connection Mode” in MODBUS Symbol Client from “Connections is closed after na inactive time out of (s):” to “Connection stays open while a time-out does not occur.”. • Changed the limit for redundant objects from 1024 to 1000. • Fixed crash when using Modbus Symbol Server mappings with a large number of mapped variables. • Fixed error message when pressing TAB in MODBUS_Device request row. • Fixed issue where some projects cannot be opened in BCS Tools (introduced in 3.70 version). • Fixed wrong value in “FilterTime MaxValue” property for GT-XXXF series from 98 to 62. • Fixed exception in redundant projects when project path contains “.project”. • Fixed internal error when updating NX5100 clock via BCS Tools. • Fixed issue where BCS Tools could improperly delete user libraries during a project update. • Fixed issue where some libraries were not appearing in Intellisense. • Fixed issue when using PROFIBUS on NX3008 where a manual switchover command in the PO9900/NX9100 did not work on the first PROFIBUS Remote on the network if it doesn't have output modules. • Hidden some reserved device diagnostic structures. • Implemented compiler message to show quantity of input/output bytes for each NX5001 PROFIBUS network. • Implemented enhancements to online export/import variables. Users can now choose the destination and filename when exporting variables, which are saved with the .expvars extension. The import screen allows selecting the source location for importing these files. Additionally, when creating an archive, users can define which files will be included and also select specific files to extract during the restore process. • Updated PIO XML files. • Updated EtherCAT device support for “M-Series” and “G-Series” modules. • Updated EtherCAT Master for X2/BoX2 from “v3.5.17.0” to ”v4.6.0.0”. • Implemented protections for some specific commands that could cause disruption of the control system when operating with redundant CPUs, like performing a STOP command on the Active CPU. • Implemented warning for half-cluster redundancy with DPV1 enabled on non-redundant PROFIBUS heads. • Improved the diagnostic message text of group power supply on I/O modules. • Optimized the spent time for protocol verifications. • Updated GSD files to enable “DPV1 functions” for NX5110/NX5210 and PO5064/PO5065. • Updated all Nexto library compilers to CODESYS 3.5.18.50. • Info: This version was built with CODESYS Development System 3.5.18.60.		
BG	• Added support for “Codesys Control Win V3 x64” (demo mode only).	3.70	29/11/2024

	• Added official support for SparkPlugB Library. • Added new screen which shows the memory consumption on projects with NX and XP CPUs (Device/MemoryConsumption). • Added support for GT-224F, GT-227F, GT-2378, GT-2438, GT-3C74, GT-3C94, GT-3C78, GT-3C98, GT-4334, GT-4354, and GT-4374 modules on Distributed IO Configurator. • Changed to enable the 'Write Complete PDO Configuration' checkbox in the CANOpen configurator. • Updated the BSD Device Configurator to change the STRUCT and library to remove 8-bit datatype variables. • Updated the CFC package to enhance performance in the refactoring feature. • Fixed an internal error in BCS Tools that occurred during project updates when an external library was using an outdated version of library IoDrvNextoModbus. • Fixed an issue that could result in error when trying to add an OPC UA Information Model to the project. • Fixed an issue in redundant projects using Modbus Direct, where the execution of a STOP command for a CPU was experiencing significant delays. • Fixed an issue in Symbol Configuration where selecting a GVL (or other symbol) from a library did not generate code properly, resulting in the symbol not being selected when using NX or XP controllers. • Fixed an issue where the Redundancy Configuration could not effectively apply a modification after a specific sequence of unchecking and checking an item. • Fixed an issue where the EtherCAT task cycle time verification was not functioning correctly for X2 devices. • Fixed compilation errors encountered when creating projects with GN-9372 (SP11). • Fixed the BSD Device Configurator in Px mode, where some variables were incorrectly fixed. • Fixed the issue with project updates when an external EDS was not installed prior to the update. • Fixed the message displayed when the user executes the stop command in redundant projects. • Improved performance by removing the check for the limit on the number of variables in a POU. • Improved the Easy Connection confirmation message to prompt users to save a project backup. • Removed the Tools/Package Manager command. • Info: This version was built with CODESYS Development System 3.5.18.60.		
BF	• Added support to use NX8000 with NX3008. • Added new J1939 Database (discontinued in 3.40). • Added diagnostic to inform when the network configuration is defined by the system webpage. • Added support for GT-3744, GT-4314, M3744, and M4314 modules on Distributed IO Configurator. • Added ML9089 Ethernet IP device. • Updated BSD Drive Configurator to support Px and CSx modes. • Updated DD files for Beijer BSD devices. • Updated G series devices: ▪ PIO devices. ▪ GL-9086 EtherCAT device. ▪ GL-9087 PROFINET device. ▪ GL-9386 EtherCAT device. ▪ GN-9222 Profibus DP device. • Updated M series devices:	3.63	30/09/2024

	▪ PIO devices. ▪ M9222 Profibus DP device. ▪ M9287 PROFINET device. ▪ M9386 EtherCAT device. • Fixed a namespace problem on MQTT wizard which caused a compilation error. • Fixed an MQTT Wizard code to accept all types of variables in a Publisher message tag. • Fixed an issue on Wizard which was showing duplicate option J1939_ECU for X2. • Fixed some library references for PIO and X2. • Removed (discontinued) the parameter "Enable I/O update per task" for NX3008. • Info: This version was built with CODESYS Development System 3.5.18.60.		
BE	• Added GN-9261 Distributed IO Configurator. • Added BFI CANopen Configurator. • Added BFI PROFINET Configurator. • Added "Search in Documents" button feature. • Added a command "Compare" in the Restore Points feature. • Added a new object with a Wizard to create a POU for Datalogger Function Block. • Added a new object with a Wizard to create a POU for MQTT Function Block. • Added commands "Reorder List and Clear Gaps", "Save Current Values to Recipe" and "Restore Values from Recipe" in the "Declaration" menu. • Added support for updating different versions of runtime systems for X2/BoX2 devices. • Enabled command "Scan for Devices…" for EtherNet/IP and CANopen. • Enabled the "Update device" command for CAN, EtherNET/IP, EtherCAT and PROFINET protocols. • Enabled "Master Fault Action" in the EtherCAT Distributed IO Configurator. • Fixed a problem introduced on version 3.60 where some drivers can stop working after a second download in NX3008. • Fixed a problem where COM1 TYPE could be incorrect after a project update changing CPU model. • Fixed a problem where Modbus Symbol mappings could be corrupted after copy and paste from other projects. • Fixed a problem where, under rare conditions, a Modbus reconnection could cause an exception. • Fixed general translation errors. • Improved readability of messages from Drives Configurator when updating Drives. • Moved cache build to the end of the install process to optimize the first execution of the program. • Updated EDS files for Beijer BFI devices. • Updated BCS Tools 3.62 CANopen package to 4.2.0.0. • Disabled the 'Scan for Devices' command while logged in. • Info: This version was built with CODESYS Development System 3.5.18.60.	3.62	07/06/2024
BD	• Added support to PROFINET Dual-port Controller for MRP on NX3008. • Info: This version was built with CODESYS Development System 3.5.18.60.	3.61	08/02/2024
BC	▪ Added M9386, M9289 and M9273 Distributed IO Configurator. ▪ Added BFI Modbus TCP Configurator.	3.60	08/02/2024

	▪ Added BootP Server. ▪ Added Advanced PID Control function block PIDA to all Beijer devices. ▪ Added "Professional Developer Edition" support through an option selected during the install process. Functionality differs based on the selected device. Requires a Codesys license for activation. ▪ Added a message to confirm "Import Online Variables". ▪ Added a new command "Build" under Build menu. ▪ Added a new command "Release Notes" under Help menu. ▪ Added an option to enable/disable the BSD/BFI EtherCAT autogenerated code. ▪ Added documentation in various libraries to enhance user guidance. ▪ Added support for ".projectarchive" files on "Open project" command. ▪ Added support for GT-2418, GT-2428, GT-2734, and GT-3901 modules on Distributed IO Configurator. ▪ Added support for selection of other languages. ▪ Added support for Static Analysis Light. ▪ Changed PIDControl to create its objects inside folders for better project organization. ▪ Changed the "Communication Settings" style from "Classic mode" to "Simple mode". ▪ Changed the default path for new projects to a dedicated folder. ▪ Changed the default profile of new projects to "Machine". ▪ Changed the default setting to use the "Textual View" in the POUs/GVLs. ▪ Changed the default option of 'Behavior for outputs in stop' to 'Set all outputs to default' in PLC Settings, reversing the change made in version 3.53. ▪ Changed the name of the license "Big Program" to "UNITED". ▪ Changed to register as the default program to open .project and .projectarchive extensions. ▪ Fixed a problem in the project update with an NX5100. ▪ Fixed a problem on Webvisu which could prevent the application to start when the option "Overwrite existing trace on PLC" is unchecked. ▪ Fixed a problem on CPU redundancy that could cause an exception after a switchover due to a problem on the compiler, which could incorrectly allocate non-related variables inside redundant areas. ▪ Fixed a problem that prevented more than one tool from connecting at the same time in the controller. ▪ Fixed a problem that was making the login process hang for several seconds when Source Download option was set to "Prompt at download". ▪ Fixed a problem where a change in the description of NX and NJ modules could not be applied. ▪ Fixed a problem where NX and NJ modules could not be properly updated after a Project Update. ▪ Fixed a problem where the module description could not be saved properly after a Project Update. ▪ Fixed an invalid device log message "Demo mode for IO-Link expired (license not installed)". ▪ Fixed the number of analog inputs on IntegratedIO GVL for XP3xx. ▪ Fixed a problem where it was not possible to add variables to WatchList using the right-click button in Tabular View mode. ▪ Improved the performance of code generation, especially in projects with symbolic variable mappings. ▪ Improved the performance to open a project. ▪ Optimized the processing of MODBUS Master (Serial) requests, which can significantly improve the communication performance on networks with several slaves. ▪ Removed (discontinued) the CPU parameters "TCP/IP Parameters" for all CPUs models.		

	▪ Removed (discontinued) the functionality “Diagnostic Explorer”. ▪ Removed the limit of the quantity of variables on Symbol Configurator. ▪ Updated BFI EtherCAT library. ▪ Updated BFI Modbus RTU library. ▪ Updated editor of Ladder Logic Diagram (LD) with several improvements. ▪ Updated EtherNet/IP, Profinet, and EtherCAT communication drivers, removing all customizations. Previous projects may require adjustments. ▪ Updated Gateway program, removing all customizations. ▪ Updated GN-9222 Profibus DP device. ▪ Updated the version of CodeMeter to support Soft Container licenses on Workstation (Device licensing not supported yet). ▪ Info: This version was built with CODESYS Development System 3.5.18.60.		
BB	▪ Changed the default option of ‘Behavior for outputs in stop’ to ‘Keep Current Values’ in PLC Settings, reversing the change made in BCS Tools 3.40. ▪ Fixed a problem introduced on version 3.40 where the diagnostics and commands of NX4010 were not working when using half-cluster redundancy without redundancy panel. ▪ Fixed a problem where the EtherCAT Master driver could prevent the local bus to start after a download, making the CPU to say in STOP. ▪ Info: This version was built with CODESYS Development System 3.5.17.40.	3.53	16/11/2023
BA	▪ Added support to IEC 60870-5-104 Server protocol on NX3008 CPU. ▪ Fixed a problem introduced on previous version which was causing error when adding I/O modules on NX5100 and NX5101 MODBUS TCP Heads. ▪ Changed the minimum MainTask interval to 1ms for all CPUs and project profiles. ▪ Increased the XP350 data memory from 2MB to 6MB and the program memory from 3MB to 8MB. ▪ Removed “Output state in STOP” parameter (discontinued) from NX1005, NX2001, NX2020 and NX6100. ▪ Info: This version was built with CODESYS Development System 3.5.17.40.	3.52	01/09/2023

AZ	▪ Added new PIO targets:
	  ▪ PIO GN-9373.
	  ▪ PIO M9372.
	  ▪ PIO M9373.
	▪ Added GT-2348 and GT-228F in BCSTools.
	▪ Added new field in wizard to choose different versions of runtime systems for PIO devices.
	▪ Added support for updating different versions of runtime systems for PIO devices.
	▪ Added command "Create POUs from Template" for CFC language.
	▪ Added PLC Settings tab on the target device.
	▪ Improved design of NET interfaces configuration for better usability and uniformity.
	▪ PID Auto-tune improvements (NextoPID library):
	  ▪ The maximum range of parameter PercHystPV was increased from 1% to 5%, allowing us to auto-tune processes with noise levels higher than the previous version.
	  ▪ The error PEAK_TOO_LOW changed to avoid unnecessary aborts of auto-tuning.
	  ▪ The error CYCLE_TOO_FAST was eliminated to avoid unnecessary aborts of auto-tuning.
	  ▪ The error HIGH_DEAD_TIME was eliminated to avoid unnecessary aborts of auto-tuning.
	▪ PID ControlPWM block improvements (NextoPID library): this block
		3.51	19/06/2023

	now must be called inside a cyclic task. Freewheeling tasks would provide non-precise output. Otherwise, the Error output is set. Furthermore, a new output SampleTime informs the interval of the cyclic task. ▪ Fixed 'File transfer error' when logging in with PIO controllers. ▪ Fixed "Export Online Variables" problems with more than 10.000 variables. ▪ Fixed simulation mode to work using port 11739. ▪ Fixed error in 'Recipe Management' with X2, BoX2 and PIO's devices. ▪ Removed GL-9971 PIO from BCSTools. ▪ Updated version of EtherNet/IP driver: ▪ Fixed problems when using one BYTE + one BOOL. ▪ Fixed a problem that was triggering an Online Change even with no changes on the project. ▪ Fixed a problem where Ethernet/IP Scanner would not update %I in RUN when option "Update I/O while in stop" is checked. ▪ Removed the limit of 511 bytes of input or output per connection. ▪ Changed the default task of the IO Cycle of EtherNet/IP Scanner and Adapter from MainTask to an exclusive task.		
AY	▪ Added Distributed IO Configurator. ▪ Added BSD/BFI Configurator. ▪ Added Documents feature. ▪ Added Restore Points feature. ▪ Added export tags for iX Developer feature. ▪ Added ModBus TCP Master and Modbus RTU compatibility with Nexto Xpress series and NX3008. ▪ Added support for XP350 PLC with SoftMotion. ▪ Added support to run Python scripts. ▪ Included a new command to remove the current license (returning to Lite). ▪ Updated GN-948x devices. ▪ Fixed MODBUS RTU Master request diagnostic not working with more than 128 requests. ▪ Fixed I/O mapping update for EtherCAT devices. ▪ Fixed 'Scan for devices' command doesn't work with X2 and PIO controllers. ▪ Fixed general screen size and translation problems. ▪ Fixed the "Invalid result package" error message when trying to login to the CPU with incompatible firmware. ▪ Added, by default, VAR and END_VAR in PLC_PRG. ▪ Info: This version was built with CODESYS Development System 3.5.17.40.	3.50	19/01/2023
AX	▪ Added support to new CPU NX3008. ▪ Added verification to check for the presence of non-related variables inside redundant areas. ▪ Added Reset Origin Device Command. ▪ Added support to EtherCAT Master for all Nexto Xpress. ▪ Added LibIntegratedIoExt which allows to use additional analog inputs on Nexto Xpress. ▪ Added a compilation error message when user uses REFERENCE TO in persistent vars. ▪ Fixed Online Change performance, which was degraded since version 3.31. ▪ Fixed login performance when several CFC POUs windows were opened. ▪ Fixed an issue where mappings of MODBUS Symbol Client and Master could stop to work (frozen values) after an online change. ▪ Fixed an issue where graphical elements could show a red "X" ending on a crash due to GDI handle leak.	3.40	08/12/2022

	▪ Fixed an issue where deleting unused symbols on Symbol Configuration could lead to exception on OPC UA Server. ▪ Fixed an issue where changing the execution order of CFC POU with online change could lead to a PLC exception. ▪ Fixed BCS Tools crash error after closing ModBus Server window when opening a project without updating it. ▪ Fixed an issue where changing focus in and out on NET fields results on project change. ▪ Fixed BCS Tools crash error when changing Watchdog of MainTask on Xpress controller. ▪ Fixed an issue where Project Compare could show differences for identical CFC POUs. ▪ Fixed declaring the libraries dependencies as placeholders. ▪ Fixed a problem where BCS Tools may not be able to locate the PLC in the Devices list when using "localhost" gateway when running the tool on a computer with more than five network adapter devices. ▪ Increased the maximum size of Program Memory from 2MB to 3MB on XP300/XP315/XP325. ▪ Increased the maximum size of Program Memory from 6MB to 8MB on XP340 and NX3005. ▪ Removed limit of 500 assemblies on EtherNetIP Scanner. ▪ Updated version of EtherCAT Master driver. ▪ Updated LibNextoPID library containing new standard and advanced control functions. ▪ General improvements on Portuguese and English texts. ▪ Changed the minimum required firmware for PIOs Targets.		

AW	▪ Added minimum required firmware check routine in the X2/BoX2/PIO targets.
	▪ Added new message box to notify user if a new version is available for download.
	▪ Added rules to allow adding only PLC compatible devices.
	▪ Added new command Create POUs from Template.
	▪ Added new PIO targets:
	  ▪ PIO GL-9973.
	  ▪ PIO GL-9974.
	  ▪ PIO GL-9975.
	▪ Added new wizard features:
	  ▪ Combo box to categorize devices during project creation.
	  ▪ Fieldbus wizard configuration (protocol + slave + amount of slaves).
	▪ Added start and stop system events in project template.
	▪ MODBUS Symbol:
	  ▪ Fixed MODBUS Client/Server does not support ambiguous variables.
	  ▪ Fixed bug that IntegratedIO Tags don’t work with Modbus.
	  ▪ Fixed exception in the PLC when changing the size of the array mapped in MODBUS.
	▪ Project Update:
	  ▪ New User Interface.
	  ▪ Correct version displaying.
	  ▪ Removed Project Environment window.
	  ▪ Added LAN port name update for Ethernet and EtherCAT devices when upgrading projects created in previous versions to HMI X2.
	  ▪ Fixed behavior that caused the project to break when updating without saving first.
	  ▪ Fixed invalid version format error when updating X2 devices with Ethercat Slaves.
	▪ Reduced CPU consumption when logged in.
	▪ Fixed window behavior not closing during code generation.
	▪ Fixed wizard behavior not correctly displaying ethernet interface choices.
		3.34	16/02/2022

	▪ Fixed Modbus TCP Slave configuration tabs that were not displayed. ▪ Fixed exception when loss connection to the PLC. ▪ Fixed compilation error when using J1939 ECU device in projects with X2 modules. ▪ Fixed Gateway conflict message with other Gateways already installed. ▪ Fixed incorrect channel and description texts in Integrated I/O page. ▪ Fixed keyboard shortcuts S and N for Write and Force dialogs in Portuguese language. ▪ Fixed improper add of GVLs IoQualities and Modules_Diagnostic when opening project created on previous versions. ▪ Fixed issue that allows Maintask interval greater than 100 ms in projects with Machine Profile. ▪ Fixed missing .DLL that causes problemas in Trace object of previous versions. ▪ Removed the 'Enable retain and persistent variables in function blocks' checkbox from CPU parameters page. ▪ Removed 'Scan for Devices' command for PROFIBUS devices. ▪ Removed software license update window during startup. ▪ Removed access to startup application settings. ▪ Info: This version was built with CODESYS Development System 3.5.17.40.		
AV	▪ Added new target PIO GL-9972. ▪ Added new Ethernet/IP adapter GN-9089. ▪ Added new PROFINET Device GL-9087. ▪ Added new PROFINET Device GN-9287. ▪ Added CSV import and export tab of I/O mappings. ▪ Fixed issue in MODBUS Symbol RTU Master that makes mappings stop to work after an online change. ▪ Fixed issue in MODBUS Symbol RTU Slave that makes mappings stop to work after an online change. ▪ Fixed crash after closing the Clock Settings dialog. ▪ Fixed application startup exception when declaring arrays of function blocks in retain or persistent areas. ▪ Fixed system out of memory error caused by changes in Redundancy configuration. ▪ Fixed J1939 device issue regarding stack version. ▪ Fixed issue that made impossible to delete the copies of UserPrg POU. ▪ Fixed the startup with invalid international settings. ▪ Fixed issue in PID Control editor that causes malfunction after performing a 'clean all' command. ▪ Created "OPC UA" device category ▪ Unchecked, by default, the 'Recipe management in the PLC' option in the 'Recipe Manager' object. ▪ Renamed bit bReserved05 to bHardwareFailure for Ponto series module PO1213. ▪ Updated BFI inverters devices. ▪ Updated Ethernet/IP GN-9289 device. ▪ Updated G-Series Modules and PIO targets. ▪ Improved the project template for PIO Beijer devices. ▪ Improved the project template for X2/BoX2 Beijer devices. ▪ Improvements in NX5000 redundancy performance. ▪ Improvements in Portuguese translation. ▪ Info: This version was built with CODESYS Development System 3.5.15.55.	3.33	24/09/2021
AU	▪ Fixed improper online change request due to IoDrvNextoRedundancy library. ▪ Fixed improper online change request due to LibDatabaseManager library. ▪ Fixed the overlap of I/O addresses for PROFINET devices. ▪ Improvements in PROFIBUS diagnostics for Ponto Series slaves. ▪ Info: This version was built with CODESYS Development System	3.32	11/06/2021

	3.5.15.55.		
AT	▪ Added new target GL-9971 (PIO). ▪ Added OPC UA for GN-937x (PIO). ▪ Added 'Declarations > Add all instance paths' command for PersistentVars. ▪ Added confirmation dialog for force variables command (F7). ▪ Added confirmation dialog for write variables command (Ctrl + F7). ▪ Added 'Connected Clients' counter in the status bar (requires compatible firmware). ▪ Added support to System Events. ▪ Added support to reStructuredText documentation for libraries. ▪ Added Application tab on target device. ▪ Added 'Scan for Devices' feature for all Beijer devices. ▪ Added 'Disable Device' command present in the Devices tab. ▪ Added the default configuration 'Auto-reconnect' on the Modbus TCP Master device for GN-9372 and GL-9971. ▪ Fixed compatibility with projects created between versions 3.15 and 3.23. ▪ Fixed issue in MODBUS Symbol Server that makes mappings stop to work after an online change. ▪ Fixed issue in MODBUS Symbol Client that makes mappings stop to work after an online change. ▪ Fixed issue that makes 'subsequent' attribute don't be applied on online change. ▪ Fixed issue that makes new objects marked in Redundancy Configuration don't be applied on online change. ▪ Fixed Ethernet/IP Scanner to proper work with I/O bit mapping from existing symbolic variables. ▪ Fixed 'Scan for Devices' command of EtherCAT Master on online mode. ▪ Fixed compile error for GVLs with attribute 'qualified_only' in Redundancy Configuration. ▪ Fixed improper download request for Nexto projects with EtherCAT Master. ▪ Fixed improper online change request for projects with CFC's POUs. ▪ Fixed behavior of pulse variables (Special_Variables GVL) for projects with "Basic" profile. ▪ Fixed issue that put project with Symbol Configuration in dirty state after opening. ▪ Fixed the installation conflict with Codesys 3.5 SP15 Patch 5. ▪ Enabled 'Download Application Info' option for all targets. ▪ Removed command "Tools > Import and Export Options". ▪ Improvements in Portuguese translation. ▪ Improvements in online help (Nexto Xpress resolution of PT100 and PT1000). ▪ Improvements in CSV import and export commands. ▪ Improvements in installer. ▪ Improvements in PID Control editor. ▪ Fixed auto-declare of variables for X2/BoX2 targets. ▪ Changed the default values of the MODBUS TCP Master settings. ▪ Changed the default values of the Ethernet Adapter settings. ▪ Changed the default values of EtherCAT Master settings. ▪ Updated the GN-9386 and GL-9086 EtherCAT slaves. ▪ Improvements in PIO available application objects. ▪ Improved the performance to save project changing the project compress level from maximum compress to minimum compress. ▪ Fixed the issue of the Gateway not starting. ▪ Updated CANopen inverter devices. ▪ Changed "Set all outputs to default" as standard on the "PLC Settings" tab for GL-9971 and GN-9372. ▪ Changed the default configuration 'Enabled 1 (use bus cycle task if not	3.31	16/04/2021

	used in any task)' on rack devices for GN-9372 and GL-9971. ▪ Fixed the Special Variables program calls location in redundant applications. ▪ Info: This version was built with CODESYS Development System 3.5.15.55.		

AS	▪ Added new targets X2, BoX2 and PIO;
	▪ Added command "License Manager" in "Tools" menu;
	▪ Added command "License Repository" in "Tools" menu;
	▪ Added command "Bookmarks" in "View" menu;
	▪ Added commands "Find in Project" and "Replace in Project" to standard toolbar;
	▪ Added new default options for "SmartCoding" and "FBD, LD and IL editor";
	▪ Increased the RAM usage limit of the programming system for x64 architecture;
	▪ Increased maximum number of tasks of Nexto Xpress PLCs from 5 to 16;
	▪ Integrated I/O points are considered by Wizard when creating a project with I/O modules;
	▪ Enabled on Menu "Declarations" the submenu "Reorder List and Clear Gaps".
	▪ Included new default options for "SmartCoding" and "FBD, LD and IL editor".
	▪ Improved mappings limit routines;
	▪ Improved project treeview display;
	▪ Improved robustness of Login command;
	▪ Improvements in "Update Software License" Window;
	▪ Improvements in device treeview to show access modifiers;
	▪ Improvements in message texts about memory range field exceeding PLC memory limit;
	▪ Improvements in portuguese message texts;
	▪ Improvements in project update (modify device) for products with Integrated I/O;
	▪ Improvements in simulation mode;
	▪ Improvements in Wizard usability;
	▪ Improvements of color schemes in Text Editor options;
	▪ Improvements of the intelligent input assistance:
	  ▪ Categories: Open with 'Ctrl + Space', switch pages with arrows left/right;
	  ▪ Filters: When typing elements from DUTs or FBs, naming filter now is independent of character position and characteres are highlighted;
	▪ Improvements on CFC ToolBox and Editor:
	  ▪ Accelerated multiple insertion of an element from the ToolBox in the CFC editor, by selecting the element on ToolBox view, pressing Ctrl and left clicking in the editor to insert at each new click;
	  ▪ Auto Dataflow Mode as new default setting;
	  ▪ Display Execution Order shows the execution order of the blocks as overlay;
	  ▪ Execution order is setting is adaptable in POU properties;
	  ▪ Explicit start point for feedback loops;
	  ▪ Drag and drop of variables;
	▪ Improvements on ST Editor:
	  ▪ When the cursor is on a symbol name, all occurrence locations of the symbol within the editor are highlighted;
	  ▪ Incremental search for strings with 'Ctrl + Shift + i';
	  ▪ Navigation through searched string with 'Alt + Page Up/Page Down';
	  ▪ Comment and uncomment multiple lines at once via context menu or 'Ctrl + o' and 'Ctrl + i' shortcuts;
	  ▪ Editing columns via keyboard operation 'Shift + Alt + Arrow Keys';
		3.30	07/10/2020

	▪ Auto declare via “Smart Tags” with suggestion popup. Keyboard shortcut is ‘Ctrl + .’; ▪ Improvements on Watch: ▪ Type cast for pointer inside Watch; ▪ Monitoring of instance via interface, also in case of dynamically created objects; ▪ Monitoring of the instance when reference is made via pointer; ▪ Removed IL language from Wizard; ▪ Removed Spanish option from installer; ▪ Removed the confirmation dialog before execute the commands Delete and Cut; ▪ Removed unsupported objects from X2 PLCs; ▪ Signing of compiled libraries supported, and new icons. See more info in ‘Library Manager > Icon legend’; ▪ Updates the fieldbus devices; ▪ Fixed CANOpen CiA 405 Library Help navigation; ▪ Fixed error on printing the project through the command “Document…” in “Project” menu; ▪ Fixed Ethernet/IP Scanner’s configuration issues regarding import of third-party EDS files; ▪ Fixed improper online change request after close and reopen a project; ▪ Fixed improper online change request due to Symbol Configuration automatic cleanup routine; ▪ Fixed improper online change request on projects with not installed third-party devices; ▪ Fixed improper variable uncheck after project update due to Symbol Configuration automatic cleanup routine; ▪ Fixed installer issue that applied wrong file permissions during reinstalling; ▪ Fixed issue that hides product library when the project is opened/created; ▪ Fixed Wizard calculation of number of Thermocouple modules. ▪ Info: This version was built with CODESYS Development System 3.5.15.40.		
-	▪ Added support to IEC 60870-5-104 Server protocol on XP340. ▪ Added support to Client Certificate on MQTT Protocol. ▪ Added diagnostics to new USB devices (Wifi and 3G/4G modem) on Nexto Xpress. ▪ Increased limit of OPC UA variables from 5000 to 20000. ▪ Increased limit of Export Online Variables from 30000 to 60000. ▪ Performance optimization of Export Online Variables routines. ▪ Fixed bit forcing issues for direct mapped variables. ▪ Fixed compilation error in Simulation Mode when using some CPU and rack combinations. ▪ Fixed compilation error caused by LibDatalogger dependencies. ▪ Info: This version was built with CODESYS Development System 3.5.12.02.	3.23	01/06/2020
-	▪ New limit of 16000 Ethernet/IP Device assemblies for the whole project. ▪ Added support to Update Device context menu for EtherCAT Slaves. ▪ Increased limit of assemblies per Ethernet/IP Device to 500. ▪ Fixed an issue where a password-protected project would failed to open. ▪ Fixed an issue where PIDControl object would not always save the generated code correctly. ▪ Fixed some issues with Export Online Variables. ▪ Improved Project Update for update of children devices. ▪ Improved support for multiple versions to be installed in parallel. ▪ Improvements in texts for Portuguese and English Cultures. ▪ Included MODBUS Symbol Client device version 1.0.0.25 for support of old versions.	3.22	30/03/2020

	▪ Info: This version was built with CODESYS Development System 3.5.12.02.		
-	▪ Added a new type of license: BIG Program Professional. ▪ Increased limit of assemblies per Ethernet/IP Device from 50 to 60. ▪ Fixed a crash in Ethernet/IP interface when configuring "AXL E EIP DI 16 M12 6P" device. ▪ Improvements in Project Wizard. ▪ Improvements in texts for Portuguese and English Cultures. ▪ Info: This version was built with CODESYS Development System 3.5.12.02.	3.21	12/02/2020
-	▪ Added a new command called "Start PACTware" in "Tools" menu to call an Asset Management Tool. ▪ Fixed exception in Redundant NX3030 after project synchronization process; ▪ Fixed issue causing "Online Change" when opening project with WebVisualization object. ▪ Info: This version was built with CODESYS Development System 3.5.12.02.	3.20	27/12/2019
-	▪ Added option Refactoring in the menu Tools/Options; ▪ Added new Module Options on EtherNet/IP Module of EtherNet/IP Adapter: SInt Input Module x 124, SInt Output Module x 125, Int Input Module x 124, Int Output Module x 125, DInt Input Module x 124, DInt Output Module x 125, Real Input Module x 124 and Real Output Module x 125; ▪ Added support for MQTT_CLIENT Function Block (provided by LibMQTT), which allows the controller to publish/subscribe MQTT messages; ▪ Added support for MSSQL_CLIENT Function Block (provided by LibSQLClient), which allows the controller to connect to a Microsoft SQL Server database; ▪ Added support to CAN termination parameter on the CPU device for XP300, XP315, XP325 and XP340; ▪ Added network configuration rules in XP300, XP315, XP325 and XP340 to prevent downloads with invalid configuration. ▪ Improvements in Project Update; ▪ Improvements in Project Wizard; ▪ Improvements in the project file creation; ▪ Improvements in NX3003 Integrated/IO Mapping; ▪ Improvements in texts for Portuguese Culture; ▪ Disabled Expansion Ethernet Interfaces and Redundancy network for Basic License; ▪ Fixed a problem was removing the Redundancy Configuration object while updating the project; ▪ Fixed a problem generating code without errors with NX4000 modules disconnected; ▪ Fixed problem creating unnecessary NX4000 modules; ▪ Fixed a crash in BCS Tools while updating some kind of redundant projects; ▪ Fixed a problem prevented project creation when BCS Tools International Settings was marked "Same as Microsoft Windows"; ▪ Fixed issue that caused "Online Change" when opening project in specific situation; ▪ Fixed a crash in Ethernet/IP interface when configuring "AXL E EIP DI 16 M12 6P" device. ▪ Info: This version was built with CODESYS Development System 3.5.12.02.	3.19	20/12/2019
-	▪ Added support to XP340 PLC; ▪ Added option on the device IEC 60870-5-104 Server to receive a command in local time; ▪ Added option to the device IEC 60870-5-104 Server to send timestamps in local time;	3.18	29/10/2019

	▪ Added the command Refactoring in the menu Edit; ▪ Added new options of Baudrates for Nexto Xpress Serial (COM1): 2400 bps and 4800 bps; ▪ Added new elements for Visualization feature; ▪ Added a new object called Alarm Manager; ▪ Added a new object called Trend Recording Manager; ▪ Added a new object called Interface; ▪ Added CANopen Manager for XP300 and XP315; ▪ Added J1939 Manager and ECU for XP300, XP315, XP325 and XP340. ▪ Improvements in Help Files; ▪ Improvements in Import/Export CSV; ▪ Improvements in International Settings; ▪ Improvements in Project Update; ▪ Improvements in Project Wizard; ▪ Improvements in the project file creation; ▪ Improvements in MODBUS Server Mapping Screen; ▪ Improvements in Comparing Projects with PIDControl object; ▪ Improvements in texts for Portuguese Culture; ▪ Improvements in Fast Input configuration consistency; ▪ Improvements in PLCOpenXML Import command; ▪ Fixed SNTP period parameter in compiler warning to resolve “Implicit conversion from unsigned Type ‘USINT’ to signed Type ‘SINT’” error; ▪ Fixed problems to configure MODBUS in COM interfaces after selecting Normal Mode; ▪ Fixed a problem to send the project archive to PLC; ▪ Fixed a problem to show Security Screen in the previous versions; ▪ Fixed NX9020 description; ▪ Fixed an error when saving Recipes using REAL variables; ▪ Fixed call location at MainPrg of redundant applications; ▪ Fixed login with online change in Redundant Project; ▪ Fixed copy/paste for CANopen Remote Device; ▪ Changed the MainTask Interval to be triggered as a warning, no longer as an error for Xpress CPUs; ▪ Changed field name of the serial advanced parameter to “RS-485 Termination”; ▪ Changed download archive size from 16 MB to 26 MB for XP300, XP315 and XP325; ▪ Added support in MODBUS Symbol drivers and IEC 60870-5-104 Server driver to variables from Function Blocks with EXTENDS directive; ▪ Added consistency when try to using a NX5100 with NX9020; ▪ Disabled clock settings in simulation mode. ▪ Info: This version was built with CODESYS Development System 3.5.12.02.		
-	▪ Included XP3xx in CANopen Slave Devices library (to be used with CANopen Manager). ▪ Improvements in Project Update; ▪ Improvements in the project file creation; ▪ Improvements in Help Files; ▪ Fixes in copy and paste commands in I/O Mapping; ▪ Fixes in Special Variables GVL. ▪ Info: This version was built with CODESYS Development System 3.5.12.02.	3.17	04/09/2019
-	▪ Added Integrated I/O Mapping for NX3003 and XP3xx; ▪ Enabled Protocol EtherNet/IP Scanner and Adapter for all CPUs; ▪ Included Datalogger functionality (added LibDataLogger library); ▪ Added a new system GVL called Special Variables including Pulsating Bits, Clock variables and Constants; ▪ Added new “Open Circuit Value” parameter for XP3xx Analog Inputs; ▪ Added information about modules installation in Help files; ▪ Added a tooltip that shows up in the configuration screen when passing	3.16	14/08/2019

	the mouse cursor above the modules; ▪ Improvements in NX5101 Modbus Mappings to align data according to the physical order; ▪ Improvements in Analog Output Configuration Page XP315 and XP325; ▪ Fixed error message in New Project Screen when trying to add I/O modules; ▪ Improvements in the English culture help files; ▪ Fixed I/O Simulation tool was not working for Integrated I/O in NX3003, XP300, XP315 and XP325; ▪ Limited the use of reserved words (“DigitalInputs”, “DigitalOutputs”, “FastInputs” and “FastOutputs”) in code generation for CPU NX3003, XP300, XP315 and XP325; ▪ Fixed the incompatibility with NJ6001 and NJ6005 (introduced in recent versions 3.14 and 3.15) when module have firmware version lower than 1.1.0.1. ▪ Info: This version was built with CODESYS Development System 3.5.12.02.		
-	▪ Updated the compiler to fix a potential occurrence of exception when using Ethernet IP protocol. ▪ Info: This version was built with CODESYS Development System 3.5.12.02.	3.15	01/07/2019
-	▪ Included option "disabled" for open circuit value on 4-20mA inputs of NX6000 and NJ6000 modules, allowing reading of signals below 4mA (0 to 4mA). ▪ Included 4-20mA scale on modules NJ6001, NJ6005 and NJ6101, adding also an option to set the behavior of analog inputs on open circuit condition. ▪ Added "Login" Button to Easy Connection. ▪ Including a confirmation message before removing objects from the project. ▪ Added Right Click to open the product information web page in Configuration (Bus). ▪ Use Internet Explorer 11 to show the start web page (requires Internet Explorer 11 to be installed). ▪ Improvement to copy and paste on Modbus Symbol Server. ▪ Improved algorithm of the LibNextoPID with anti-reset windup and the automatic error recovery (ex: Gp < 0). ▪ Fixed the translation of the "Paste Contacts" submenu in the "FBD / LD / IL" menu. ▪ Fixed to always create a project with newest version of PLC. ▪ Fixed possible error "Object reference not set to an instance of an object" after request export to CSV. ▪ Fixed the culture selection after open the "Clock Settings" dialog. ▪ Fixed the "Export Online Variables" command. ▪ Fixed error introduced on version 3.10 which may cause exception after a switchover of redundant PLC. ▪ Fixed error introduced on version 3.11 which results on exception when reading/writing to MODBUS mappings with variable size longer than 16 bits. ▪ Changed limits of Recipe Manager, keeping only the limit of 5.000 variables per Recipe Definition. ▪ Improved Help. ▪ Info: This version was built with CODESYS Development System 3.5.12.0.	3.14	26/06/2019
-	▪ Changed the installer to solve some cases where the installation process results on error when running on outdated versions of Windows 7 and 8.1. ▪ Info: This version was built with CODESYS Development System 3.5.12.0.	3.13	16/04/2019
AR	▪ Added CANopen Manager support for XP325.	3.12	11/03/2019

	▪ Added Fast I/O support (counters, interrupts and PWM/PTO) for XP300, XP315 and XP325. ▪ Added Interruption option and Counter Interrupts to NX3003 in Integrated I/O window. ▪ Added support for Import and Export to NX3003, XP300, XP315 and XP325. ▪ Updated help with CANopen. ▪ Fixed the checkbox "Enable retain and persistent variables in Function Blocks", which was not being effective when checked specifically for Nexto Xpress controllers. ▪ The declarations editors (GVL and POUS) now opens in tabular mode. ▪ Added LibMachineOEM. ▪ Automatically open the project update window for outdated projects. ▪ Fixed a problem on PLC Redundancy control algorithm, which could cause a failure on the switchover process if an specific communication problem between the CPUs has occured previously. ▪ Info: This version was built with CODESYS Development System 3.5.12.0.		
AQ	▪ Added I/O Simulator page ▪ Added new hot swap mode "Hot Swap Disabled Without Startup Consistency" for following devices: NX3003, NX3004, NX3005, NX3010, NX3020, NX3030 and NX5100 ▪ Updated help ▪ Added encryption to OPC UA ▪ Opens the declarations editors (GVL and POUS) in tabular mode ▪ Added a message box to warning about changing values when user leaves a page ▪ Improved the error message when use a Basic license ▪ Added support to Nexto Xpress PLCs XP300, XP315 and XP325 ▪ Added support to NX3003 PLC ▪ Added support to NX5101 MODBUS TCP Head ▪ Added support to OPC UA configuration ▪ Added EtherNet/IP Adapter ▪ Added option in the project wizard to create the directory to project's files ▪ Added "Find in Project" command in menu "Edit" ▪ Added "Replace in Project" command in menu "Edit" ▪ Added "Browse Call Tree" command in menu "Edit > Browse" ▪ Added "BCS Tools Perspective" command in menu "View > Choose Perspective" ▪ Added "HMI Perspective" command in menu "View > Choose Perspective" ▪ Added "Visualization" command in menu "View > HMI Views" ▪ Added "HMI Features" command in menu "View > HMI Views" ▪ Added "Programmings" command in menu "View > HMI Views" ▪ Added "Datasources" command in menu "View > HMI Views" ▪ Added "Commit Accepted Changes" command in menu "Project" ▪ Added "Insert Execute Box" command in menu "FBD/LD/IL" ▪ Added "Add to Recipe Definition" command in context menu of the POUs and GVLs ▪ Added "Browse Call Tree" command in context menu of the POUs ▪ Added "Export Library" command in context menu of the Library Manager ▪ Included Encryption tab in the Application object ▪ The parameter "Minimum Error Before Clock Update" accepts a new range from 1 up to 65519 ms ▪ Improvements in the performance of Import Safety Projects command ▪ Improvements in the Import Safety Projects command	3.04 3.05 3.10 3.11	28/12/2018

	▪ Info: This version was built with CODESYS Development System 3.5.12.0.		
AP	▪ Added Help files for EtherNet/IP in Portuguese; ▪ Included the possibility of enabling hot swap on CPU configuration, even when using Nexto Jet modules (which doesn't have support for this feature). This allows to avoid stopping the PLC when a remote bus expansion rack is disconnected. ▪ Added Import Safety Project… and Delete Safety Objects Imported… commands in Project menu; ▪ Added message if no device was found when Easy Connection is executed; ▪ Added on the About dialog the version in wich the project was created; ▪ Added support to Alarm Manager and Alarm Configuration; ▪ Added support to NX9020 rack. ▪ Increased the limit of the EtherCAT slaves to 192. ▪ Info: This version was built with CODESYS Development System 3.5.7.60.	3.03	15/01/2018
AO	▪ Added EtherNet/IP Scanner; ▪ Added the IEC 60870-5-104 Server device; ▪ Added Disable Breakpoint and Enable Breakpoint commands in Debug menu; ▪ Added Easy Connection command; ▪ Added Edit IO mappings command in context menu of Device object; ▪ Added new commands (Reorder list and clean gaps, Save current values to recipe and Restore values from recipe) in Persistent Variables object; ▪ Added NJ1005, NJ6001, NJ6011, NJ6101 and NX5100 modules support; ▪ Added options to Operating Mode command in Online menu; ▪ Added Toggle Breakpoint command to POU when CPU is connected; ▪ Added Placeholders command in context menu of Library Manager object; ▪ Added Print Preview command in File menu; ▪ Added quality variables support for IO modules; ▪ Added quality variables support for MODBUS Symbol Client driver; ▪ Added Wink command in Source upload… and Source download… commands; ▪ Changed tab design for all screens; ▪ Changed the Synchronism screen in CPU configuration. The new screen allows time zone configuration with SNTP disable; ▪ Created a new design option to Communication Settings screen; ▪ Enable or disable redundant objects causes online change download; ▪ Fixed a problem in compiler using Symbol Configuration and variables with character "_"; ▪ Fixed an issue in PersistenVars that initialized variables when a variable type was changed during an online changes process; ▪ Fixed problems with source download options; ▪ Implemented a change to decrease the project archive size when removing objects; ▪ Implemented a change to show right quantity of recent projects in the start page; ▪ Implemented a consistency to deny read, write and force invalid indexes of arrays; ▪ Implemented a process to close all windows when a logoff is done; ▪ Implemented Export/Import process for Dynamic IP address parameter in NET1;	3.02	09/06/2017

	▪ Implemented Export/Import to User and Groups of Project Settings command; ▪ Implemented new options tabs (Device description download, Library download and Proxy Settings) in Options command in Tools menu; ▪ Implemented new tab Target memory settings in Application object; ▪ Implemented new tab View in tab option CFC Editor in Options command in Tools menu; ▪ Implemented new warnings in tab Compile warnings of Project Settings command; ▪ Implemented Permission for Folders in the Permissions Window; ▪ Implemented setting 'keep running on CPU stop' to MODBUS Slave and Server ▪ Implemented the consistency of maximum number of PROFIBUS slave bytes; ▪ Improvements in Auto Declare command; ▪ Improvements in Breakpoints command; ▪ Improvements in Cross Reference List command; ▪ Improvements in EtherCAT Master Sync Window; ▪ Improvements in GVL and PersistentVars objects; ▪ Improvements in Help files; ▪ Improvements in memory usage during project update; ▪ Improvements in NX5001 tab DP-Parameters; ▪ Improvements in online changes process in certain cases ▪ Improvements in Portuguese Culture Screens; ▪ Improvements in POU for implicit checks object; ▪ Improvements in Project Information... command; ▪ Improvements in Recipe Manager; ▪ Improvements in Recipe object in Tree view; ▪ Improvements in Symbol Configuration object; ▪ Improvements in tab option Device Editor in Options command in Tools menu; ▪ Improvements in tab option SmartCoding in Options command in Tools menu; ▪ Improvements in Trace object; ▪ Improvements in Watch command; ▪ Included Internal Points configurations in Nexto CPUs; ▪ Some difference project structure for new projects: ▪ Changed Wizard Page to choose the language of UserPrg and StartPrg; ▪ New projects are created with four folders called SystemGVLs, SytemPOUs, UserGVLs and UserPOUs; ▪ A new POU called StartPrg is created for every new project; ▪ A new POU called UserPrg is created for non-redundant projects; ▪ Three new GVLs called IOQualities, Module_Diagnostics and System_Diagnostics are created; ▪ The Diagnostics GVL is not created for new projects; ▪ Removed a wrong icon from Add Gateway Window. ▪ Info: This version was built with CODESYS Development System 3.5.7.60.		
AN	▪ Enabled Redundant PROFIBUS network for NX3020 in Wizard page; ▪ Improvements in Redundant State Machine using only Ethernet I/Os; ▪ Improvements to decrease the size of BCS Tools projects. ▪ Info: This version was built with CODESYS Development System 3.5.3.141.	2.08	26/12/2016
AM	▪ Added NX3005 CPU support; ▪ Added the Visualization feature to the tool. This feature enable users to create screens loaded and stored in the CPUs memory with	2.07	31/10/2016

	the logic application. Using this feature is possible access created screens trough the web browsers. This feature is enable only for NX3005 CPU: ▪ Added Visualization Manager object used to set general configuration of Visualization feature; ▪ Added WebVisualization object used to set the specific configuration related with web access in the created screens; ▪ Added Visualization objects that is used to create screens to access application information; ▪ Added Image Pool object to the application. This object is used to create a list of images that can be used in the Visualization; ▪ Added Network Variable List (NVL) feature to tool. The feature enable exchanging variables among controllers trough the CPU network interfaces. ▪ Added a new command called Clock Settings that is an easy way to get and set date and time in the CPUs; ▪ Added the option of Dynamic IP Address to the CPU Ethernet interface (DHCP Protocol); ▪ Added the option Edit Page Size in the CFC Menu; ▪ Fixed a problem using Export to CSV feature and the SOE enabled; ▪ Fixed a problem using Export Online Variables command; ▪ Fixed a problem related with Symbols in Treeview with Redundant PROIFBUS Networks; ▪ Improvements performance in Import from CSV command. ▪ Fixed an eventual issue with redundant system startup when using exclusively PROFIBUS slaves from Nexto Series; ▪ Changed verification rule of hot-swap mode parameter for Nexto Jet Solution to allow the system to startup even with absent modules. ▪ Info: This version was built with CODESYS Development System 3.5.3.141.		
AL	▪ Changed the product label to comply with the new revision of CE directive. ▪ Info: This version was built with CODESYS Development System 3.5.3.141.	2.05	22/06/2016
AK	▪ Added a new type of license: BIG PROGRAM; ▪ Included a new option that allows to use Retain and Persistent variables on Function Blocks; ▪ Changed the verification rule of NX3004 maximum current to allow the operation with up to 20W in some specific conditions; ▪ Added support for NX9010 rack with NX5110; ▪ Enhancements on Export Online Variables command; ▪ Fixed import/export for projects with PO7078 module; ▪ Compilation performance optimization in projects with MODBUS Client and MODBUS Master; ▪ Performance optimization on Open Project, Generate Code and Login commands. ▪ Info: This version was built with CODESYS Development System 3.5.3.141.	2.05	25/01/2016
AJ	▪ Added support for Nexto Jet solution, with the inclusion of the following modules: NJ1001, NJ2001, NJ6000, NJ6010, NJ6020, NJ6100. ▪ Added a new PROFIBUS slave device called NX5110_NJ which allows to use Nexto Jet solution modules with the Nexto Series PROFIBUS DP head. ▪ Added Export and Import Online Variables command in the Online Menu. ▪ Added support for flexibility of Persistent and Retain memory area sizes. ▪ Implemented support to use old Nexto modules with Machine Profile.	2.03	15/10/2015

	▪ Enhancements on PIDControl when using it on redundant projects. ▪ Changed name and description of parameter Allocate Diagnostic Area According to the Device Description in NX5001 configuration. ▪ Consistency of EtherCAT parameters Sync0 and Sync1. ▪ Consistency of EtherCAT slave parameter Cycle Time. ▪ Improvements in message texts about synchronization options for EtherCAT configuration. ▪ Improvements in help files about EtherCAT. ▪ Removed the diagnostic HotStartCounter from the diagnostic structure of NX3004 CPU. ▪ Fixed errors using NX9010 in simulation mode. ▪ Changed the text of hot swap options in CPU General Configuration tab. ▪ Improvements in Portuguese Help files. ▪ Improvements in message texts about Modbus direct mapping limits. ▪ Info: This version was built with CODESYS Development System 3.5.3.141.		
AI	▪ New Features: ▪ Added Scan Devices feature for Nexto Series PROFIBUS Master NX5001; ▪ Added NX9010 Rack support. ▪ Enhancements: ▪ Improvements in EtherCAT Master Device; ▪ Improvements in OPC Configuration Screen including new verifications for ARRAY type and a new option to use CPU embedded gateway; ▪ Improvements in OPC Server service; ▪ Improvements in Symbol Configuration object to remove automatically deleted variables; ▪ Improvements in the treatment of GSD files from third part suppliers into Device Repository; ▪ Improvements in Force Command for bit type; ▪ Improvements in Edit commands (Add/Copy/Paste/Cut/Delete) for PROFIBUS Slave Devices; ▪ Improvement in Wizard Page to treat current consumption before creating a project; ▪ Improvements in Help files. ▪ Info: This version was built with CODESYS Development System 3.5.3.141.	2.02	04/08/2015
AH	▪ New Features: ▪ EtherCAT Master: ▪ Added EtherCAT Master Device to be inserted as a communication driver; ▪ Enabled the option Scan Devices to scan automatically the devices connected below the EtherCAT Master. ▪ Added a new Project Profile called Machine Profile execute fast applications. ▪ Added Nexto Series PROFIBUS DP slaves NX5110 and NX5210: ▪ Added Nexto Series PROFIBUS slaves into the Configuration and Consumption; ▪ Added Nexto Series PROFIBUS slaves into the Bill of Materials; ▪ Added limits verifications for Nexto Series PROFIBUS Slaves. ▪ Added NX3004 CPU support. ▪ Added NX9000 Rack support. ▪ Added SNTP support in the NX3010 CPU. ▪ Added a library to read and write PROFIBUS DPV1 commands using NX5001 interface. ▪ Added a new configuration in the CPU screen called Enable I/O Update per Task used to Update I/O in task different than	2.01	14/05/2015

	MainTask. ▪ Added Export and Import from PLCOpen XML in the Project Menu. ▪ Added the option called Redundancy without panel to use a redundant system without the Control Panel. ▪ Automatically vital failure treatment for Ethernet interfaces and MODBUS Client devices in Half Cluster redundancy Projects. ▪ Enhancements: ▪ Improvements in Portuguese Culture Screens; ▪ Improvements in Portuguese Help files. ▪ Info: This version was built with CODESYS Development System 3.5.3.141.		
AG	▪ New Features: ▪ OPC Server; ▪ Added OPC Server into the installer; ▪ Added OPC Configuration menu to configure devices to connect with OPC Server; ▪ Added Symbol Configuration object to define variables available for OPC Server access; ▪ Application CRC; ▪ Added CPU Information menu to Access Project and CPU CRC; ▪ Added a new Diagnostics for Nexto CPUs to access CRC. ▪ Export to and Import from CSV Files: ▪ Added support to Export and Import Nexto CPUs parameters; ▪ Added support to Export and Import Nexto Series Modules configuration; ▪ Added support to Export and Import Ponto Series PROFIBUS Slaves; ▪ Added support to Export and Import GVLs into CSV files; ▪ Added support to Export and Import POUs in ST language; ▪ Import through selection of multiple CSV files. ▪ Recipe Manager: ▪ Added Recipe Manager object; ▪ Added Recipe Definition object; ▪ Added LibRecipeHandler to manage Recipes into the application; ▪ Added a new programming language called CFC Page-Oriented language and its editor; ▪ Added Sync and Freeze commands support for NX5001. ▪ Added two new hotswap modes for Nexto Series CPUs: ▪ Disabled; ▪ Enabled, with startup consistency. ▪ Windows 8.1 support. ▪ Enhancements: ▪ Ponto Series PROFIBUS slaves; ▪ Added Ponto Series PROFIBUS slaves into the Configuration and Consumption; ▪ Added a new screen to configure Ponto Series bases; ▪ Added a new screen to configure Ponto Series expansion; ▪ Added Ponto Series PROFIBUS slaves into the Bill of Materials; ▪ Added limits verifications for Ponto Series PROFIBUS Slaves. ▪ Project Wizard: ▪ Added option to select bus expansion with redundancy; ▪ Added option to select redundancy project with OPC communication; ▪ Added a page to create IO modules during the wizard configuration; ▪ Added Project Profile descriptions; ▪ Help files improvements and optimizations; ▪ Optimization in the Nexto Series graphical configuration; ▪ Added PID_INT and PID_REAL Function Blocks into the LibNextoPID; ▪ Improvements in PIDControl Editor to edit main variables and	2.00	30/09/2014

	retain them values; ▪ Blocked Project Update from new projects to older versions; ▪ Changed contact support link URL; ▪ Improved the consistencies for 24 characters in device identifiers; ▪ Added a verification to prevent the use of "AT" in redundant objects; ▪ Changed the behavior to create and download project archive with online change; ▪ Changed the behavior to create boot application implicit on download and online changes; ▪ Changed the option Source Download to “Prompt at program Download and online Changes” by default; ▪ Changed the Option additional files to send “Download information files” by default; ▪ Improvements in the usability of FBD/IL/LD editor; ▪ Improvements in the usability of CFC editor. ▪ Info: This version was built with CODESYS Development System 3.5.3.120.		
AF	▪ New Features: ▪ Implemented Edit Object (offline) command; ▪ Disabled the option “Exclude from build” for CPUs; ▪ Added a new analog I/O module: NX6020 – 8 AI RTD Module. ▪ Enhancements: ▪ Standardization in comments of modules parameters and in texts used in Modbus mappings; ▪ Improvements on saving memory card configuration; ▪ Improvements in Import/Export commands; ▪ Implemented, into the update command, the feature to update redundant projects from any version without stops the application; ▪ Removed the option to read Modbus data using broadcast slave address because it was an invalid command; ▪ Updated libraries to improve the accuracy of local bus watchdog detection; ▪ Fixed problems in Online Change using Modbus drivers; ▪ Fixed a situation where MODBUS driver could incorrectly indicate NX5000 failure; ▪ All diagnostics structure library are now visible. ▪ Info: This version was built with CODESYS Development System 3.4.4.25.	1.41	18/07/2014
AE	▪ New Features: ▪ Changed the installer based in Microsoft InstallShield to installer based in Inno Setup. This change reduces the installation time; ▪ Added MODBUS devices with mappings of symbolic variables; ▪ Added Import/Export command to CSV files. This command imports or exports the project configurations; ▪ Added Import/Export support to the MODBUS Symbolic drivers; ▪ Added a new analog I/O module: NX6010 – 8 Ch. Thermocouple Input Module; ▪ Added LibLogs with new function block to manage CSV files into the memory card. ▪ Enhancements: ▪ Improvement to receive MODBUS serial frames before 3.5 characters silence. ▪ Info: This version was built with CODESYS Development System 3.4.4.25.	1.40	13/01/2014
AD	▪ Changed the MODBUS mappings limit from 128 to 512. ▪ Changed the limit of characters of TAGs from 24 to 255. ▪ Changed the limit of characters of Descriptions from 48 to 255. ▪ Changed the limit of characters of Devices Names from 24 to 255. ▪ Updated compiler version to 3.4.4.27. ▪ Updated Libraries.	1.33 1.34 1.35	28/10/2013

	▪ Info: This version was built with CODESYS Development System 3.4.4.25.		
AC	▪ Updated Libraries.	1.32	01/07/2013
AB	▪ Enhancements on performance. ▪ Corrections in memory overlap verification for Diagnostics Variables. ▪ Enhancements on Project Update. ▪ Enhancements on Simulation Mode. ▪ Added External Events configuration. ▪ Correction in memory allocation of retain variables for online changes.	1.31	12/06/2013
AA	▪ Initial revision.	1.30	12/04/2013