# Index

# 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.

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# 2. Nexto Series

## 2.1  BCS-XP300 – COMPACT PLC 16DI 16DO – BJ

| REV | Description | Version | Date |
|---|---|---|---|
| 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.<br>▪ Included support for version 5.0 of TP-Link UE300 USB-Ethernet adapter.<br>▪ 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.<br>▪ 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).<br>▪ 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).<br>▪ 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 | 1.14.36.4 | 09/12/2024 |

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| BJ | <ul><li>is now fixed to the connector in a different way, providing additional security when fixing the overlay.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | | |
| BK | <ul><li>Support for BCS Tools 3.63</li><li>Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater)</li><li>Improvements on System Web Page to enhance the reliability and usability.</li><li>Fixed a problem which would prevent the communication between BCS Tools and CPU when using "enforced encryption" option.</li><li>Fixed a problem where the internal RS-485 termination was always turned on, independently of the setting selected on CPU configuration screen.</li><li>Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected.</li><li>Fixed a problem on OpenVPN where it could incorrectly show a valid certificate as invalid.</li><li>Fixed a problem on CAN interface which could cause communication errors with baudrate below 500kbit/s</li><li>Fixed visual issues on Firewall section of System Web Page</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.36.4 | 30/09/2024 |
| BJ | <ul><li>Support for BCS Tools 3.61</li><li>Included support for FTP</li><li>Improvements on System Web Page<ul><li>Changed the timezone of the Clock Setting to match the user's computer .</li><li>Fixed error that could make the firewall rules not to be applied when the selected interfaces was "any"</li></ul></li><li>Improved firmware update time</li><li>Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely.</li><li>Limited the maximum number of OPC UA Server sessions to 50</li><li>Improvement in the backup of retentive data of the Application</li><li>Fixed an issue that could make the current Application of the device not to be erased when transfering a new Application through the USB</li><li>Fixed a problem where the Ethernet port could stop to work on high traffic scenario</li><li>Fixed an incompatibility between USB Ethernet Adapter and VPN</li><li>Fixed an issue where it was not possible to create a user (User Management)</li><li>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</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.20.0 | 08/02/2024 |
| BI | <ul><li>Improvement in the product packaging process, where the connectors are now assembled instead of being delivered in a zip bag.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.12.29.0 | 19/12/2023 |
| BH | <ul><li>Improvement of the mecanic pieces of the product.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.12.29.0 | 06/11/2023 |
| BG | <ul><li>Support for BCS Tools 3.52.</li></ul> | 1.12.29.0 | 05/09/2023 |

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| | <ul><li>New graphical design of System Web Page.</li><li>Included support on System Web Page to set the PLC clock (time/date).</li><li>Removed the requirement of PLC in STOP to perform a firmware update (now it will stop automatically).</li><li>Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway.</li><li>Included support to identify the device through the "wink" command on programming tool.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | | |
| BF | <ul><li>Fixed a problem introduced on the previous version, where the CAN Remote Mode stopped to work.</li><li>Improvement on the MQTT to support multi-level topics wildcard ('#').</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.12.24.3 | 04/08/2023 |
| BE | <ul><li>Support for BCS Tools 3.51.</li><li>Included support to OpenVPN, Firewall and USB-Ethernet Adapter.</li><li>Improvements on System Web Page:</li><li>Included configuration for OpenVPN, Firewall and USB-Ethernet Adapter.</li><li>New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer.</li><li>Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default.</li><li>Optimization in the time required to perform the firmware update process.</li><li>Fixed USB modem problem where the controller could suffer a memory leak when the modem reconnect multiple times.</li><li>Fixed interoperability problem where the Ethernet/IP stop to communicate after inserting/configuring an USB modem.</li><li>Fixed OPC UA interoperability with Kepware.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.12.24.0 | 21/06/2023 |
| BD | <ul><li>Hardware improvement to suport new PHY component (shortage issue)</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.12.5.5 | 25/01/2023 |
| BC | <ul><li>Fixed a problem where the Ethernet port could eventually fail to communicate when connecting the controller directly to a computer (point-to-point).</li><li>Fixed CANopen Slave problem where the controller could not resume the communication after a failure in the CAN bus.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.12.5.5 | 16/01/2023 |
| BB | <ul><li>Support for BCS Tools 3.40.</li><li>Fixed a problem where 3G/4G Modem could fail to reconnect after a communication failure.</li><li>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.</li><li>Fixed possible issue where the Web Page turns unaccesible</li></ul> | 1.12.5.3 | 15/12/2022 |

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| | after using it for a very long time.<br>▪ Fixed the retain system to keep the values after a reboot caused by an internal software error.<br>▪ Fixed potential exception when an application is removed (reset origin).<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40. | | |
| BA | ▪ Minor hardware changes in order to improve the product.<br>▪ 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.<br>▪ UKCA Certification marking included on product.<br>▪ 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.<br>▪ 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).<br>▪ 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).<br>▪ 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.<br>▪ 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.<br>▪ 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.<br>▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface.<br>▪ Included login mechanism for operation mode page in web interface.<br>▪ Included a new reset mechanism to solve connection failures of USB modem.<br>▪ 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.<br>▪ Included support for PROFINET Controller.<br>▪ Included support to CAN J1939.<br>▪ 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.<br>▪ Removed the hidden page "getlogs" from the system web page to improve cyber security.<br>▪ 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 | 1.9.17.0 | 28/12/2020 |

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| | operation temperature of - 20ºC.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | | |
| AR | ▪ Included support for USB WiFi adapters.<br>▪ Included suppport for additional USB modem devices: Huawei E3276 and E8372.<br>▪ Fixed a problem on the PTO fast output that could potentially turn on the next normal digital output.<br>▪ Fixed a problem where the digital input value was not updated on the execution of external interrupt task.<br>▪ 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.<br>▪ Updated the product label for compliance of the UL certification, File Number E496087.<br>▪ Included protectors for the product connectors.<br>▪ 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).<br>▪ Included support to USB modem.<br>▪ 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).<br>▪ Improved immunity level of RTD inputs against external electromagnetic interferences.<br>▪ 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.<br>▪ Fixed a problem on CANopen Remote I/O mode which could eventually prevent the controller from starting up.<br>▪ Fixed a problem that could make the DG LED to blink 4x with no reason.<br>▪ Improvements on CANopen Remote I/O mode.<br>▪ Improvements on serial communication.<br>▪ 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<br>▪ Included support for the latest version of LibSQLClient library.<br>▪ 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).<br>▪ Included support for MQTT Client Function Block (requires BCS Tools 3.19 or greater).<br>▪ Fixed the diagnostic tDetailed.Serial.COM1.wRXPendingBytes which stopped to work on previous version, affecting the Function Block of Serial communication.<br>▪ Fixed a situation that could cause a drift of RTC time higher than the specified.<br>▪ Included support for CAN termination configuration, introduced on BCS Tools 3.19.<br>▪ 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 | 1.7.49.0 | 27/09/2019 |

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| | 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.<br>▪ Included support for Ethernet/IP Scanner.<br>▪ Included support for I/O expansion through CANopen (CANopen Slave mode).<br>▪ Included support for 2400 and 4800 bits/s baudrates on the serial communication.<br>▪ Improvements on MODBUS RTU Slave timing, where sporadic communication errors could occur on a RS-485 network composed by several slaves.<br>▪ 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).<br>▪ 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.<br>▪ Improved mounting of USB mass storage devices, increasing the compatiblity with certain models of flash drives.<br>▪ Fixed maximum number of ARTI/OPC DA connections from 4 to 8.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60. | | |
| AM | ▪ Fixed generation of counter interrupt.<br>▪ 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.<br>▪ 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<br>▪ 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.<br>▪ Improvements on fast inputs and outputs.<br>▪ Improvements on the USB mass storage mounting system.<br>▪ Improved EMC immunity level<br>▪ 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<br>▪ Included support for MSSQL_Client Function Block for accessing Microsoft databases.<br>▪ Included a fixed DNS Server configuration (8.8.8.8 and 8.8.4.4)<br>▪ Included support for Fast I/O (counters, external interrupts, PTO/PWM outputs).<br>▪ Included support for FAT32 LBA filesystem, used on big capacity USB mass storage devices.<br>▪ Fixed a problem on function GetTimeZone, which could cause an exception leading the CPU to STOP.<br>▪ Improvements on GetDateAndTime and GetDayOfWeek functions, which could cause peak on execution time.<br>▪ Fixed a problem on RS-485 serial driver, which could cause random errors on MODBUS RTU communication.<br>▪ Fixed an RTD reading error that affected a small group of | 1.7.17.0 | 15/03/2019 |

| REV | Description | Version | Date |
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| | manufactured units<br>■ Changed the value of some resistors and capacitors for standarization with other products (does not affects product's technical characteristics)<br>■ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60. | | |
| AH | ■ Change in manufacturing documentation to include additional information for soldering the CPU crystal.<br>■ 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<br>■ Changed to blink 1x the DG LED when no application is loaded<br>■ Fixed company name on "Target Vendor" field on gateway scan<br>■ Removed log message generated when the system time is updated by SNTP (to avoid log being flooded with this message)<br>■ 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<br>■ 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<br>■ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60. | 1.7.3.0 | 26/10/2018 |
| AD | ■ Initial revision.<br>■ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.40. | 1.7.0.12 | 10/10/2018 |

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

| REV | Description | Version | Date |
|---|---|---|---|
| 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.<br>■ Included support for version 5.0 of TP-Link UE300 USB-Ethernet adapter.<br>■ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60. | 1.14.36.12 | 10/06/2025 |
| BP | ■ Included a new field in Overview tab of System Web Page informing the version of BCS Tools used by the application.<br>■ 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).<br>■ 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).<br>■ 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.<br>■ Info: This version was built with CODESYS Control | 1.14.36.4 | 23/10/2024 |

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| | Runtime Toolkit 3.5.18.60. | | |
| 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.<br>▪ 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<br>▪ Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater)<br>▪ Improvements on System Web Page to enhance the reliability and usability.<br>▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using "enforced encryption" option.<br>▪ Fixed a problem where the internal RS-485 termination was always turned on, independently of the setting selected on CPU configuration screen.<br>▪ Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected.<br>▪ Fixed a problem on OpenVPN where it could incorrectly show a valid certificate as invalid.<br>▪ Fixed a problem on CAN interface which could cause communication errors with baudrate below 500kbit/s<br>▪ Fixed visual issues on Firewall section of System Web Page<br>▪ 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<br>▪ Included support for FTP<br>▪ Improvements on System Web Page<br>   • Changed the timezone of the Clock Setting to match the user's computer .<br>   • Fixed error that could make the firewall rules not to be applied when the selected interfaces was "any"<br>▪ Improved firmware update time<br>▪ Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely.<br>▪ Limited the maximum number of OPC UA Server sessions to 50<br>▪ Improvement in the backup of retentive data of the Application<br>▪ Fixed an issue that could make the current Application of the device not to be erased when transfering a new Application through the USB<br>▪ Fixed a problem where the Ethernet port could stop to work on high traffic scenario<br>▪ Fixed an incompatibility between USB Ethernet Adapter and VPN<br>▪ Fixed an issue where it was not possible to create a user (User Management)<br>▪ 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<br>▪ 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.<br>▪ 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.<br>▪ Info: This version was built with CODESYS Control | 1.12.29.0 | 06/11/2023 |

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| | Runtime Toolkit 3.5.17.40. | | |
| BG | ▪ Support for BCS Tools 3.52.<br>▪ New graphical design of System Web Page.<br>▪ Included support on System Web Page to set the PLC clock (time/date).<br>▪ Removed the requirement of PLC in STOP to perform a firmware update (now it will stop automatically).<br>▪ Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway.<br>▪ Included support to identify the device through the "wink" command on programming tool.<br>▪ 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.<br>▪ Improvement on the MQTT to support multi-level topics wildcard ('#').<br>▪ 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.<br>▪ Included support to OpenVPN, Firewall and USB-Ethernet Adapter.<br>▪ Improvements on System Web Page:<br>▪ Included configuration for OpenVPN, Firewall and USB-Ethernet Adapter.<br>▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer.<br>▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default.<br>▪ Optimization in the time required to perform the firmware update process.<br>▪ Fixed USB modem problem where the controller could suffer a memory leak when the modem reconnect multiple times.<br>▪ Fixed interoperability problem where the Ethernet/IP stop to communicate after inserting/configuring an USB modem.<br>▪ Fixed OPC UA interoperability with Kepware.<br>▪ 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)<br>▪ 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).<br>▪ Fixed CANopen Slave problem where the controller could not resume the communication after a failure in the CAN bus.<br>▪ 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.<br>▪ Fixed a problem where 3G/4G Modem could fail to reconnect after a communication failure.<br>▪ 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 | 1.12.5.3 | 15/12/2022 |

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| | ▪ accordingly on BCS Tools 3.40.<br>▪ Fixed possible issue where the Web Page turns unaccesible after using it for a very long time.<br>▪ Fixed the retain system to keep the values after a reboot caused by an internal software error.<br>▪ Fixed potential exception when an application is removed (reset origin).<br>▪ Included support for additional analog inputs using LibIntegratedIoExt introduced on BCS Tools 3.40.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40. | | |
| BA | ▪ Minor hardware changes in order to improve the product.<br>▪ 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.<br>▪ UKCA Certification marking included on product.<br>▪ 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.<br>▪ 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).<br>▪ 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).<br>▪ 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.<br>▪ 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.<br>▪ 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.<br>▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface.<br>▪ Included login mechanism for operation mode page in web interface.<br>▪ Included a new reset mechanism to solve connection failures of USB modem.<br>▪ 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.<br>▪ Included support for PROFINET Controller.<br>▪ Included support to CAN J1939.<br>▪ 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.<br>▪ Removed the hidden page "getlogs" from the system web page to improve cyber security. | 1.9.25.0 | 13/01/2021 |

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| | ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | | |
| AS | ▪ Change in the product hardware to support minimum operation temperature of - 20ºC.<br>▪ 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.<br>▪ Included suppport for additional USB modem devices: Huawei E3276 and E8372.<br>▪ Fixed a problem on the PTO fast output that could potentially turn on the next normal digital output.<br>▪ Fixed a problem that could lead to a negative offset on RTD reading.<br>▪ Fixed a problem where the digital input value was not updated on the execution of external interrupt task.<br>▪ 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.<br>▪ Updated the product label for compliance of the UL certification, File Number E496087.<br>▪ Included protectors for the product connectors.<br>▪ 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).<br>▪ Included support to USB modem.<br>▪ 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).<br>▪ Improved immunity level of RTD inputs against external electromagnetic interferences.<br>▪ 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.<br>▪ Fixed a problem on CANopen Remote I/O mode which could eventually prevent the controller from starting up.<br>▪ Improvements on CANopen Remote I/O mode.<br>▪ Improvements on serial communication.<br>▪ 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<br>▪ Included support for the latest version of LibSQLClient library.<br>▪ 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).<br>▪ Included support for MQTT Client Function Block (requires BCS Tools 3.19 or greater).<br>▪ Fixed the diagnostic tDetailed.Serial.COM1.wRXPendingBytes which stopped to work on previous version, affecting the Function Block of Serial communication.<br>▪ Fixed a situation that could cause a drift of RTC time higher than the specified.<br>▪ Included support for CAN termination configuration, introduced on BCS Tools 3.19.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | 1.8.5.0 | 11/12/2019 |

| | | | | |
|---|---|---|---|---|
| AN | <ul><li>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.</li><li>Included support for Ethernet/IP Scanner.</li><li>Included support for I/O expansion through CANopen (CANopen Slave mode).</li><li>Included support for 2400 and 4800 bits/s baudrates on the serial communication.</li><li>Improvements on MODBUS RTU Slave timing, where sporadic communication errors could occur on a RS-485 network composed by several slaves.</li><li>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).</li><li>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.</li><li>Improved mounting of USB mass storage devices, increasing the compatiblity with certain models of flash drives.</li><li>Fixed maximum number of ARTI/OPC DA connections from 4 to 8.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.</li></ul> | | 1.7.49.0 | 27/09/2019 |
| AM | <ul><li>Fixed generation of counter interrupt.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.</li></ul> | | 1.7.40.0 | 07/09/2019 |
| AL | <ul><li>Replacement for the overlay flat cable connector part number and change in the insertion procedure.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.</li></ul> | | 1.7.35.0 | 06/06/2019 |
| AK | <ul><li>Included support for new homologated memories</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.</li></ul> | | 1.7.35.0 | 21/05/2019 |
| AJ | <ul><li>Fixed external input I02, which stopped to work on previous version.</li><li>Improvements on fast inputs and outputs.</li><li>Improvements on the USB mass storage mounting system.</li><li>Improved EMC immunity level</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.</li></ul> | | 1.7.32.0 | 09/05/2019 |
| AI | <ul><li>Included support for OPC UA protocol</li><li>Included support for MSSQL_Client Function Block for accessing Microsoft databases.</li><li>Included a fixed DNS Server configuration (8.8.8.8 and 8.8.4.4)</li><li>Included support for Fast I/O (counters, external interrupts, PTO/PWM outputs, ...)</li><li>Included support for FAT32 LBA filesystem, used on big capacity USB mass storage devices</li><li>Fixed a problem on function GetTimeZone, which could cause an exception leading the CPU to STOP.</li><li>Improvements on GetDateAndTime and GetDayOfWeek functions, which could cause peak on execution time.</li></ul> | | 1.7.17.0 | 15/03/2019 |

| REV | Description | Version | Date |
|---|---|---|---|
| | ▪ Fixed a problem on RS-485 serial driver, which could cause random errors on MODBUS RTU communication<br>▪ Fixed an RTD reading error that affected a small group of manufactured units<br>▪ Changed the value of some resistors and capacitors for standarization with other products (does not affects product's technical characteristics)<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60. | | |
| AH | ▪ Change in manufacturing documentation to include additional information for soldering the CPU crystal.<br>▪ 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<br>▪ Changed to blink 1x the DG LED when no application is loaded<br>▪ Fixed company name on "Target Vendor" field on gateway scan<br>▪ Removed log message generated when the system time is updated by SNTP (to avoid log being flooded with this message)<br>▪ 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<br>▪ 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<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60. | 1.7.3.0 | 26/10/2018 |
| AD | ▪ Initial revision.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.40. | 1.7.0.12 | 10/10/2018 |

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

| REV | Description | Version | Date |
|---|---|---|---|
| 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.<br>▪ Included support for version 5.0 of TP-Link UE300 USB-Ethernet adapter.<br>▪ 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.<br>▪ 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).<br>▪ 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).<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60. | 1.14.36.6 | 16/12/2024 |

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|---|---|---|---|
| BQ | <ul><li>This new product revision refers to changes in internal documentation, in which similar products were changed, which did not affect this product.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.36.4 | 16/10/2024 |
| BP | <ul><li>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.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.36.4 | 03/10/2024 |
| BO | <ul><li>Support for BCS Tools 3.63</li><li>Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater)</li><li>Improvements on System Web Page to enhance the reliability and usability.</li><li>Fixed a problem which would prevent the communication between BCS Tools and CPU when using "enforced encryption" option.</li><li>Fixed a problem where the internal RS-485 termination was always turned on, independently of the setting selected on CPU configuration screen.</li><li>Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected.</li><li>Fixed a problem on OpenVPN where it could incorrectly show a valid certificate as invalid.</li><li>Fixed a problem on CAN interface which could cause communication errors with baudrate below 500kbit/s</li><li>Fixed visual issues on Firewall section of System Web Page</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.36.4 | 30/09/2024 |
| BN | <ul><li>Support for BCS Tools 3.61</li><li>Included support for FTP</li><li>Improvements on System Web Page<ul><li>Changed the timezone of the Clock Setting to match the user's computer .</li><li>Fixed error that could make the firewall rules not to be applied when the selected interfaces was "any"</li></ul></li><li>Improved firmware update time</li><li>Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely.</li><li>Limited the maximum number of OPC UA Server sessions to 50</li><li>Improvement in the backup of retentive data of the Application</li><li>Fixed an issue that could make the current Application of the device not to be erased when transfering a new Application through the USB</li><li>Fixed a problem where the Ethernet port could stop to work on high traffic scenario</li><li>Fixed an incompatibility between USB Ethernet Adapter and VPN</li><li>Fixed an issue where it was not possible to create a user (User Management)</li><li>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</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.20.0 | 08/02/2024 |
| BM | <ul><li>Improvement in the product packaging process, where the connectors are now assembled instead of being delivered in a zip bag.</li></ul> | 1.12.29.0 | 19/12/2023 |

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| | ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40. | | |
| BL | ▪ Improvement of the mecanic pieces of the product.<br>▪ 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.<br>▪ New graphical design of System Web Page.<br>▪ Included support on System Web Page to set the PLC clock (time/date).<br>▪ Removed the requirement of PLC in STOP to perform a firmware update (now it will stop automatically).<br>▪ Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway.<br>▪ Included support to identify the device through the "wink" command on programming tool.<br>▪ 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.<br>▪ Improvement on the MQTT to support multi-level topics wildcard ('#').<br>▪ 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.<br>▪ Included support to OpenVPN, Firewall and USB-Ethernet Adapter.<br>▪ Improvements on System Web Page:<br>▪ Included configuration for OpenVPN, Firewall and USB-Ethernet Adapter.<br>▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer.<br>▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default.<br>▪ Optimization in the time required to perform the firmware update process.<br>▪ Fixed USB modem problem where the controller could suffer a memory leak when the modem reconnect multiple times.<br>▪ Fixed interoperability problem where the Ethernet/IP stop to communicate after inserting/configuring an USB modem.<br>Fixed OPC UA interoperability with Kepware.<br>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)<br>▪ 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).<br>▪ Fixed CANopen Slave problem where the controller could not resume the communication after a failure in the CAN bus.<br>▪ 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.<br>▪ Fixed a problem where 3G/4G Modem could fail to reconnect after a communication failure.<br>▪ Increased the storage capability for the source code, stored | 1.12.5.3 | 15/12/2022 |

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| | 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.<br>▪ Fixed possible issue where the Web Page turns unaccesible after using it for a very long time.<br>▪ Fixed the retain system to keep the values after a reboot caused by an internal software error.<br>▪ Fixed potential exception when an application is removed (reset origin).<br>▪ Included support for additional analog inputs using LibIntegratedIoExt introduced on BCS Tools 3.40.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40. | | |
| BE | ▪ Minor hardware changes in order to improve the product.<br>▪ 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.<br>▪ UKCA Certification marking included on product.<br>▪ 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.<br>▪ 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).<br>▪ 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).<br>▪ 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.<br>▪ 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.<br>▪ 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.<br>▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface.<br>▪ Included login mechanism for operation mode page in web interface.<br>▪ Included a new reset mechanism to solve connection failures of USB modem.<br>▪ 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.<br>▪ Included support for PROFINET Controller.<br>▪ Included support to CAN J1939.<br>▪ 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"* | 1.9.25.0 | 13/01/2021 |

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| | ▪ diagnostic in status bar. To see this diagnostic, BCS Tools version 3.31 or greater is required.<br>▪ Removed the hidden page "getlogs" from the system web page to improve cyber security.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | | |
| AW | ▪ Change in the product hardware to support minimum operation temperature of - 20ºC.<br>▪ 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.<br>▪ 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.<br>▪ Included suppport for additional USB modem devices: Huawei E3276 and E8372.<br>▪ Fixed a problem on the PTO fast output that could potentially turn on the next normal digital output.<br>▪ Fixed a problem that could lead to a negative offset on RTD reading.<br>▪ Fixed a problem where the digital input value was not updated on the execution of external interrupt task.<br>▪ 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.<br>▪ Included protectors for the product connectors.<br>▪ 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).<br>▪ Included support to USB modem.<br>▪ 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).<br>▪ Improved immunity level of RTD inputs against external electromagnetic interferences.<br>▪ 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.<br>▪ Fixed a problem on CANopen Remote I/O mode which could eventually prevent the controller from starting up.<br>▪ Improvements on CANopen Remote I/O mode.<br>▪ Improvements on serial communication.<br>▪ 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<br>▪ Included support for the latest version of LibSQLClient library.<br>▪ 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).<br>▪ Fixed the diagnostic tDetailed.Serial.COM1.wRXPendingBytes which stopped to work on previous version, affecting the Function Block of Serial communication.<br>▪ Fixed a situation that could cause a drift of RTC time higher than the specified. | 1.8.5.0 | 11/12/2019 |

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|---|---|---|---|---|
| | ▪ Included support for CAN termination configuration, introduced on BCS Tools 3.19.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | | | |
| AQ | ▪ 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.<br>▪ Included support for Ethernet/IP Scanner.<br>▪ Included support for I/O expansion through CANopen (CANopen Slave mode).<br>▪ Included support for 2400 and 4800 bits/s baudrates on the serial communication.<br>▪ Improvements on MODBUS RTU Slave timing, where sporadic communication errors could occur on a RS-485 network composed by several slaves.<br>▪ 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).<br>▪ 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.<br>▪ Improved mounting of USB mass storage devices, increasing the compatiblity with certain models of flash drives.<br>▪ Fixed maximum number of ARTI/OPC DA connections from 4 to 8.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60. | 1.7.49.0 | 27/09/2019 | |
| AP | ▪ Fixed generation of counter interrupt.<br>▪ 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.<br>▪ 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<br>▪ 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.<br>▪ Improvements on fast inputs and outputs.<br>▪ Improvements on the USB mass storage mounting system.<br>▪ Improvements in CANopen Manager performance.<br>▪ Improved EMC immunity level<br>▪ 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<br>▪ Included support for MSSQL_Client Function Block for accessing Microsoft databases.<br>▪ Included a fixed DNS Server configuration (8.8.8.8 and 8.8.4.4)<br>▪ Included support for Fast I/O (counters, external interrupts, PTO/PWM outputs, ...)<br>▪ Included support for CANopen Manager | 1.7.17.0 | 15/03/2019 | |

| REV | Description | Version | Date |
|---|---|---|---|
| | <ul><li>Included support for FAT32 LBA filesystem, used on big capacity USB mass storage devices</li><li>Fixed a problem on function GetTimeZone, which could cause an exception leading the CPU to STOP.</li><li>Improvements on GetDateAndTime and GetDayOfWeek functions, which could cause peak on execution time.</li><li>Fixed a problem on RS-485 serial driver, which could cause random errors on MODBUS RTU communication</li><li>Fixed an RTD reading error that affected a small group of manufactured units</li><li>Changed the value of some resistors and capacitors for standarization with other products (does not affects product's technical characteristics)</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.</li></ul> | | |
| AK | <ul><li>Change in manufacturing documentation to include additional information for soldering the CPU crystal.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.</li></ul> | 1.7.7.0 | 30/01/2019 |
| AJ | <ul><li>Changed to update status of digital input LEDs even with no application loaded</li><li>Changed to blink 1x the DG LED when no application is loaded</li><li>Fixed company name on "Target Vendor" field on gateway scan</li><li>Removed log message generated when the system time is updated by SNTP (to avoid log being flooded with this message)</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.</li></ul> | 1.7.7.0 | 05/12/2018 |
| AI | <ul><li>Improved LED diagnostic indication</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.</li></ul> | 1.7.5.0 | 12/11/2018 |
| AH | <ul><li>Included support for USB mass storage devices</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.</li></ul> | 1.7.3.0 | 26/10/2018 |
| AG | <ul><li>Initial revision.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.40.</li></ul> | 1.7.0.12 | 10/10/2018 |

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

| REV | Description | Version | Date |
|---|---|---|---|
| BB | <ul><li>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.</li><li>Included support for version 5.0 of TP-Link UE300 USB-Ethernet adapter.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.36.12 | 10/06/2025 |
| BA | <ul><li>Included a new field in Overview tab of System Web Page informing the version of BCS Tools used by the application.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.36.7 | 03/04/2025 |
| AZ | <ul><li>Starting on this revision, the product becomes certified for UL Listed/Class I, Division 2, Groups A, B, C, D T4 (C1D2).</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.36.6 | 20/02/2025 |

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|---|---|---|---|
| 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).<br>▪ 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.<br>▪ 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<br>▪ Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater)<br>▪ Improvements on System Web Page to enhance the reliability and usability.<br>▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using "enforced encryption" option.<br>▪ Fixed a problem where the internal RS-485 termination was always turned on, independently of the setting selected on CPU configuration screen.<br>▪ Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected.<br>▪ Fixed a problem on OpenVPN where it could incorrectly show a valid certificate as invalid.<br>▪ Fixed a problem on CAN interface which could cause communication errors with baudrate below 500kbit/s<br>▪ Fixed visual issues on Firewall section of System Web Page<br>▪ Fixed a problem on WebVisu introduced on version 1.14.20.0 which could cause a PLC reset when downloading the application<br>▪ 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<br>▪ Included support for FTP<br>▪ Improvements on System Web Page<br>  ▪ Changed the timezone of the Clock Setting to match the user's computer .<br>  ▪ Fixed error that could make the firewall rules not to be applied when the selected interfaces was "any"<br>▪ Fixed a problem related to the Trend Graphic of the WebVisu where the controller could restart if the Application use it<br>▪ Improved firmware update time<br>▪ Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely.<br>▪ Limited the maximum number of OPC UA Server sessions to 50<br>▪ Improvement in the backup of retentive data of the Application<br>▪ Fixed an issue that could make the current Application of the device not to be erased when transfering a new Application through the USB<br>▪ Fixed a problem where the Ethernet port could stop to work on high traffic scenario<br>▪ Fixed an incompatibility between USB Ethernet Adapter and VPN<br>▪ Fixed an issue where it was not possible to create a user (User Management)<br>▪ Fixed a problem introduced on version 1.12.24.0 which was making the CPU status on the treeview to become a red | 1.14.20.0 | 08/02/2024 |

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| | triangle when using BCS Tools version lower than 3.40<br>■ 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.<br>■ 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.<br>■ 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.<br>■ New graphical design of System Web Page.<br>■ Included support on System Web Page to set the PLC clock (time/date).<br>■ Removed the requirement of PLC in STOP to perform a firmware update (now it will stop automatically).<br>■ Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway.<br>■ Included support to identify the device through the "wink" command on programming tool.<br>■ 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.<br>■ Improvement on the MQTT to support multi-level topics wildcard ('#').<br>■ 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.<br>■ Included support to OpenVPN, Firewall and USB-Ethernet Adapter.<br>■ Improvements on System Web Page:<br>■ Included configuration for OpenVPN, Firewall and USB-Ethernet Adapter.<br>■ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer.<br>■ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default.<br>■ Optimization in the time required to perform the firmware update process.<br>■ Fixed USB modem problem where the controller could suffer a memory leak when the modem reconnect multiple times.<br>■ Fixed interoperability problem where the Ethernet/IP stop to communicate after inserting/configuring an USB modem.<br>■ Fixed OPC UA interoperability with Kepware.<br>■ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40. | 1.12.24.0 | 21/06/2023 |
| AP | ■ Hardware improvement to suport new PHY component (shortage issue)<br>■ 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).<br>■ Fixed CANopen Slave problem where the controller could not resume the communication after a failure in the CAN bus. | 1.12.5.5 | 16/01/2023 |

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| | ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40. | | |
| AN | ▪ Support for BCS Tools 3.40.<br>▪ Fixed a problem where 3G/4G Modem could fail to reconnect after a communication failure.<br>▪ 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.<br>▪ Fixed possible issue where the Web Page turns unaccesible after using it for a very long time.<br>▪ Fixed the retain system to keep the values after a reboot caused by an internal software error.<br>▪ Fixed potential exception when an application is removed (reset origin).<br>▪ Included support for additional analog inputs using LibIntegratedIoExt introduced on BCS Tools 3.40.<br>▪ 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.<br>▪ 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.<br>▪ UKCA Certification marking included on product.<br>▪ 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.<br>▪ 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 part number (due to the shortage of electronic components).<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | 1.11.10.0 | 27/05/2022 |
| AJ | ▪ Minor hardware adjustments to support a new alternative part number (due to the shortage of electronic components).<br>▪ 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.<br>▪ 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.<br>▪ 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.<br>▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface.<br>▪ Included login mechanism for operation mode page in web interface.<br>▪ Included a new reset mechanism to solve connection failures of USB modem.<br>▪ Fixed misaligned memory exception due to IEC104 server mappings.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | 1.11.2.0 | 26/07/2021 |

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| - | • Changed firmware update mechanism to include support for the new file format that will be introduced on upcoming versions.<br>• Included support for PROFINET Controller.<br>• Included support to CAN J1939.<br>• 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.<br>• Removed the hidden page "getlogs" from the system web page to improve cyber security.<br>• 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.<br>• 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.<br>• Included suppport for additional USB modem devices: Huawei E3276 and E8372.<br>• Fixed a problem on the PTO fast output that could potentially turn on the next normal digital output.<br>• Fixed a problem that could lead to a negative offset on RTD reading.<br>• Fixed a problem where the digital input value was not updated on the execution of external interrupt task.<br>• 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.<br>• Updated the product label for compliance of the UL certification, File Number E496087.<br>• Included protectors for the product connectors.<br>• Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | 1.9.17.0 | 18/08/2020 |
| AC | • Improved performance (CPU clock increased by 85% with bootloader version 1.0.0.15 included on this version).<br>• Included support for IEC 104 Server protocol (requires BCS Tools 3.23 or greater)<br>• Included support to USB modem.<br>• 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).<br>• Improved immunity level of RTD inputs against external electromagnetic interferences.<br>• Fixed a problem that could eventually generate an error when downloading an application with Webvisu.<br>• 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.<br>• Fixed a problem on CANopen Remote I/O mode which could eventually prevent the controller from starting up.<br>• Improvements on CANopen Remote I/O mode.<br>• Improvements on serial communication.<br>• 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<br>• Included support for the latest version of LibSQLClient library. | 1.8.11.0 | 09/01/2020 |

| REV | Description | Version | Date |
|---|---|---|---|
| | ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | | |
| AA | ▪ Initial revision.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | 1.8.5.0 | 11/12/2019 |

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

| REV | Description | Version | Date |
|---|---|---|---|
| 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.<br>▪ Included support for version 5.0 of TP-Link UE300 USB-Ethernet adapter.<br>▪ 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.<br>● 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.<br>● 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).<br>● 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.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.<br>▪ 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).<br>▪ 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<br>▪ Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater)<br>▪ Improvements on System Web Page to enhance the reliability and usability.<br>▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using "enforced encryption" option.<br>▪ Fixed a problem where the internal RS-485 termination was always turned on, independently of the setting selected on CPU configuration screen.<br>▪ Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected.<br>▪ Fixed a problem on OpenVPN where it could incorrectly | 1.14.36.4 | 30/09/2024 |

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| | <ul><li>show a valid certificate as invalid.</li><li>Fixed a problem on CAN interface which could cause communication errors with baudrate below 500kbit/s</li><li>Fixed visual issues on Firewall section of System Web Page</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | | |
| AI | <ul><li>Support for BCS Tools 3.61</li><li>Included support for FTP</li><li>Improvements on System Web Page<ul><li>Changed the timezone of the Clock Setting to match the user's computer .</li><li>Fixed error that could make the firewall rules not to be applied when the selected interfaces was "any"</li></ul></li><li>Improved firmware update time</li><li>Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely.</li><li>Limited the maximum number of OPC UA Server sessions to 50</li><li>Improvement in the backup of retentive data of the Application</li><li>Fixed an issue that could make the current Application of the device not to be erased when transfering a new Application through the USB</li><li>Fixed a problem where the Ethernet port could stop to work on high traffic scenario</li><li>Fixed an incompatibility between USB Ethernet Adapter and VPN</li><li>Fixed an issue where it was not possible to create a user (User Management)</li><li>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</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.20.0 | 08/02/2024 |
| AH | <ul><li>Improvement in the product packaging process, where the connectors are now assembled instead of being delivered in a zip bag.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.12.29.0 | 19/12/2023 |
| AG | <ul><li>Improvement of the mecanic pieces of the product.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.12.29.0 | 06/11/2023 |
| AF | <ul><li>Support for BCS Tools 3.52.</li><li>New graphical design of System Web Page.</li><li>Included support on System Web Page to set the PLC clock (time/date).</li><li>Removed the requirement of PLC in STOP to perform a firmware update (now it will stop automatically).</li><li>Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway.</li><li>Included support to identify the device through the "wink" command on programming tool.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.12.29.0 | 05/09/2023 |
| AE | <ul><li>Improvement on the MQTT to support multi-level topics wildcard ('#').</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.12.24.3 | 04/08/2023 |
| AD | <ul><li>Support for BCS Tools 3.51.</li><li>Included support to OpenVPN, Firewall and USB-Ethernet Adapter.</li></ul> | 1.12.24.0 | 21/06/2023 |

| REV | Description | Version | Date |
|---|---|---|---|
|  | <ul><li>Improvements on System Web Page:</li><li>Included configuration for OpenVPN, Firewall and USB-Ethernet Adapter.</li><li>New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer.</li><li>Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default.</li><li>Optimization in the time required to perform the firmware update process.</li><li>Fixed USB modem problem where the controller could suffer a memory leak when the modem reconnect multiple times.</li><li>Fixed interoperability problem where the Ethernet/IP stop to communicate after inserting/configuring an USB modem.</li><li>Fixed OPC UA interoperability with Kepware.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> |  |  |
| AC | <ul><li>Hardware improvement to suport new PHY component (shortage issue)</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.12.5.5 | 25/01/2023 |
| AB | <ul><li>Fixed a problem where the Ethernet port could eventually fail to communicate when connecting the controller directly to a computer (point-to-point).</li><li>Fixed CANopen Slave problem where the controller could not resume the communication after a failure in the CAN bus.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.12.5.5 | 16/01/2023 |
| AA | <ul><li>Initial revision.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.12.5.3 | 15/12/2022 |

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

| REV | Description | Version | Date |
|---|---|---|---|
| BB | <ul><li>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.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.36.12 | 10/06/2025 |
| BA | <ul><li>Included a new field in Overview tab of System Web Page informing the version of BCS Tools used by the application.</li><li>Included support to a new part number of LCD display (no change in visual and/or functionality).</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.36.7 | 03/04/2025 |
| AZ | <ul><li>Support for BCS Tools 3.63</li><li>Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater)</li><li>Improvements on System Web Page to enhance the reliability and usability.</li><li>Fixed a problem which would prevent the communication between BCS Tools and CPU when using "enforced encryption" option.</li><li>Fixed a problem on firmware update where the process</li></ul> | 1.14.36.2 | 30/09/2024 |

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| | • could fail unexpectedly or take longer than expected.<br>• Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60. | | |
| AY | • Support for BCS Tools 3.61<br>• Improvements on System Web Page<br>  • Changed the timezone of the Clock Setting to match the user's computer .<br>  • Fixed error that could make the firewall rules not to be applied when the selected interfaces was "any"<br>• Fixed a problem related to the Trend Graphic of the WebVisu where the controller could restart if the Application use it<br>• Improved firmware update time<br>• Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely.<br>• Limited the maximum number of OPC UA Server sessions to 50<br>• Fixed error that could generate an exception when downloaded an Application with EtherCAT or PROFINET<br>• Improvement in the backup of retentive data of the Application<br>• 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<br>• New graphical design of System Web Page<br>• Included support on System Web Page to set the PLC clock (time/date)<br>• Removed the requirement of PLC in STOP to perform a firmware update (now it will stop automatically)<br>• Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway<br>• Included support to identify the device through the "wink" command on programming tool.<br>• Improvement on the MQTT to support multi-level topics wildcard ('#').<br>• Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40. | 1.12.29.0 | 05/09/2023 |
| AW | • Support for BCS Tools 3.51.<br>• Improvements on System Web Page:<br>• New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer.<br>• Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default.<br>• Optimization in the time required to perform the firmware update process.<br>• Fixed OPC UA interoperability with Kepware.<br>• 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).<br>• 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)<br>• 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. | 1.12.5.3 | 24/01/2023 |

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|---|---|---|---|
| | ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40. | | |
| AS | ▪ Support for BCS Tools 3.40.<br>▪ Fixed possible issue where the Web Page turns unaccesible after using it for a very long time.<br>▪ Fixed the retain system to keep the values after a reboot caused by an internal software error.<br>▪ Fixed potential exception when an application is removed (reset origin).<br>▪ 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.<br>▪ 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.<br>▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface.<br>▪ 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.<br>▪ Improvements in "one touch diag" feature.<br>▪ Included support for PROFINET Controller.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | 1.9.29.0 | 26/07/2021 |
| 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.<br>▪ Removed the hidden page "getlogs" from the system web page to improve cyber security.<br>▪ 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.<br>▪ Fixed a problem where the digital input value was not updated on the execution of external interrupt task.<br>▪ Fixed a problem of delay in PTO softstop command when using LibMachineOEM.LABELING_MACHINE function block.<br>▪ 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).<br>▪ 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.<br>▪ 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).<br>▪ Included support for the latest version of LibSQLClient library.<br>▪ Included support for Ethernet/IP Adapter and Scanner.<br>▪ Included support for visualization of the integrated I/O by LCD (menu Hardware).<br>▪ Included support for labeling function of the LibMachineOEM library (PTO). | 1.8.11.0 | 27/01/2020 |

| REV | Description | Version | Date |
|---|---|---|---|
| | <ul><li>Improvements in the performance of integrated fast I/O.</li><li>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.</li><li>Fixed maximum number of ARTI/OPC DA connections from 4 to 8.</li><li>General fixes on User Rights Management, which was not working properly on version 1.7.x.x.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.</li></ul> | | |
| AL | <ul><li>Improvements in the performance of integrated fast I/O.</li><li>Improvements in the performance of serial communication.</li><li>Improvements in CPU diagnostic messages.</li><li>Included watchdog reset diagnostic on the CPU display.</li><li>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.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.</li></ul> | 1.7.36.0 | 11/06/2019 |
| AK | <ul><li>Initial revision.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60.</li></ul> | 1.7.20.0 | 01/04/2019 |

## 2.7  BCS-NX3004 – CPU 1 ETH, 1 SERIAL PORT – BJ

| REV | Description | Version | Date |
|---|---|---|---|
| AZ | <ul><li>Included a new field in Overview tab of System Web Page informing the version of BCS Tools used by the application.</li><li>Included support to a new part number of LCD display (no change in visual and/or functionality).</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.36.7 | 03/04/2025 |
| AY | <ul><li>Support for BCS Tools 3.63</li><li>Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater)</li><li>Improvements on System Web Page to enhance the reliability and usability.</li><li>Fixed a problem which would prevent the communication between BCS Tools and CPU when using "enforced encryption" option.</li><li>Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.36.2 | 30/09/2024 |
| AX | <ul><li>Support for BCS Tools 3.61</li><li>Improvements on System Web Page<ul><li>Changed the timezone of the Clock Setting to match the user's computer .</li><li>Fixed error that could make the firewall rules not to be applied when the selected interfaces was "any"</li><li>Improved firmware update time</li></ul></li><li>Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely.</li><li>Limited the maximum number of OPC UA Server sessions to 50</li><li>Fixed error that could generate an exception when downloaded an Application with EtherCAT or PROFINET</li><li>Improvement in the backup of retentive data of the Application</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.20.0 | 08/02/2024 |
| AW | <ul><li>Support for BCS Tools 3.52</li></ul> | 1.12.29.0 | 05/09/2023 |

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

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| | ▪ Removed the hidden page "getlogs" from the system web page to improve cyber security.<br>▪ 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.<br>▪ 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). | 1.9.8.0 | 09/11/2020 |
| AO | ▪ Included protectors for the product connectors.<br>▪ 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).<br>▪ Included support for the latest version of LibSQLClient library.<br>▪ Included support for Ethernet/IP Adapter and Scanner.<br>▪ Fixed an error that could occur when performing a specific sequence of modification of the size of Retain/Persistent %Q area.<br>▪ 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.<br>▪ Fixed maximum number of ARTI/OPC DA connections from 4 to 8.<br>▪ General fixes on User Rights Management, which was not working properly on version 1.7.x.x.<br>▪ 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<br>▪ Included support for MSSQL_Client Function Block for accessing Microsoft databases.<br>▪ Included a fixed DNS Server configuration (8.8.8.8 and 8.8.4.4)<br>▪ Fixed the position of F symbol (force) on LCD<br>▪ Improvements on Easy Connection feature<br>▪ Fixed a problem on function GetTimeZone, which could cause an exception leading the CPU to STOP.<br>▪ Improvements on GetDateAndTime and GetDayOfWeek functions, which could cause peak on execution time.<br>▪ Removed log message generated when the system time is updated by SNTP (to avoid log being flooded with this message)<br>▪ 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<br>▪ 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.<br>▪ Enhancements in SNMP protocol<br>▪ 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);<br>▪ Added return of Easy Execution command execution status;<br>▪ Including support for new Nexto Jet solution modules;<br>▪ Improved Ethernet IP protocol;<br>▪ Improved support for NVLs.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10. | 1.6.1.0 | 02/10/2017 |
| AH | ▪ Included support to clock settings. | 1.6.0.5 | 06/01/2017 |

| REV | Description | Version | Date |
|---|---|---|---|
| | ▪ Included support to easy connection.<br>▪ Included support to dynamic IP.<br>▪ Included support to mixed analog module NJ6005.<br>▪ Homologation of alternative part numbers for components used on this product.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10. | | |
| 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.<br>▪ 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.<br>▪ Included the support for Nexto Jet solution.<br>▪ 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.<br>▪ 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 |

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

| REV | Description | Version | Date |
|---|---|---|---|
| AV | ▪ Included a new field in Overview tab of System Web Page informing the version of BCS Tools used by the application.<br>▪ Included support to a new part number of LCD display (no change in visual and/or functionality).<br>▪ 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<br>▪ Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater)<br>▪ Improvements on System Web Page to enhance the reliability and usability.<br>▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using "enforced encryption" option.<br>▪ Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected.<br>▪ Fixed a problem on WebVisu introduced on version 1.14.20.0 which could cause a PLC reset when downloading the application<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60. | 1.14.36.2 | 30/09/2024 |
| AT | ▪ Support for BCS Tools 3.61<br>▪ Improvements on System Web Page<br>  ▪ Changed the timezone of the Clock Setting to match the user's computer .<br>  ▪ Fixed error that could make the firewall rules not to be applied when the selected interfaces was "any"<br>▪ Fixed a problem related to the Trend Graphic of the WebVisu where the controller could restart if the Application use it<br>▪ Improved firmware update time<br>▪ Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely. | 1.14.20.0 | 08/02/2024 |

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| | ▪ Limited the maximum number of OPC UA Server sessions to 50<br>▪ Fixed error that could generate an exception when downloaded an Application with EtherCAT or PROFINET<br>▪ Improvement in the backup of retentive data of the Application<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60. | | |
| AS | ▪ Support for BCS Tools 3.52<br>▪ New graphical design of System Web Page<br>▪ Included support on System Web Page to set the PLC clock (time/date)<br>▪ Removed the requirement of PLC in STOP to perform a firmware update (now it will stop automatically)<br>▪ Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway<br>▪ Included support to identify the device through the "wink" command on programming tool.<br>▪ Improvement on the MQTT to support multi-level topics wildcard ('#').<br>▪ 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.<br>▪ Improvements on System Web Page:<br>▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer.<br>▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default.<br>▪ Optimization in the time required to perform the firmware update process.<br>▪ Fixed OPC UA interoperability with Kepware.<br>▪ 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.<br>▪ 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.<br>▪ Fixed possible issue where the Web Page turns unaccesible after using it for a very long time.<br>▪ Fixed the retain system to keep the values after a reboot caused by an internal software error.<br>▪ Fixed potential exception when an application is removed (reset origin).<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40. | 1.12.5.3 | 15/12/2022 |
| 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.<br>▪ UKCA Certification marking included on product.<br>▪ 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.<br>▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface.<br>▪ 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 | 1.9.29.0 | 26/07/2021 |

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| | <ul><li>new file format that will be introduced on upcoming versions.</li><li>Improvements in "one touch diag" feature.</li><li>Included support for PROFINET Controller.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.</li></ul> | | |
| AM | <ul><li>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.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.</li></ul> | 1.9.25.0 | 26/07/2021 |
| AL | <ul><li>Included support for *"number of connected clients"* diagnostic in status bar. To see this diagnostic, BCS Tools version 3.31 or greater is required.</li><li>Removed the hidden page "getlogs" from the system web page to improve cyber security.</li><li>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.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.</li></ul> | 1.9.25.0 | 13/01/2021 |
| AK | <ul><li>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).</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.</li></ul> | 1.9.8.0 | 09/11/2020 |
| AJ | <ul><li>Included protectors for the product connectors.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.</li></ul> | 1.8.11.0 | 24/09/2020 |
| AI | <ul><li>Included support for MQTT Client Function Block (requires BCS Tools 3.19 or greater).</li><li>Included support for the latest version of LibSQLClient library.</li><li>Fixed an error that could occur when performing a specific sequence of modification of the size of Retain/Persistent %Q area.</li><li>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.</li><li>Fixed maximum number of ARTI/OPC DA connections from 4 to 8.</li><li>General fixes on User Rights Management, which was not working properly on version 1.7.x.x.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.</li></ul> | 1.8.11.0 | 27/01/2020 |
| AH | <ul><li>Included support for OPC UA protocol</li><li>Included support for MSSQL_Client Function Block for accessing Microsoft databases.</li><li>Included a fixed DNS Server configuration (8.8.8.8 and 8.8.4.4)</li><li>Fixed the position of F symbol (force) on LCD</li><li>Improvements on Easy Connection feature</li><li>Fixed a problem on function GetTimeZone, which could cause an exception leading the CPU to STOP.</li><li>Improvements on GetDateAndTime and GetDayOfWeek functions, which could cause peak on execution time.</li><li>Removed log message generated when the system time is updated by SNTP (to avoid log being flooded with this message)</li><li>Improvements on SNMP protocol</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.40.</li></ul> | 1.7.17.0 | 11/03/2019 |
| AG | <ul><li>Improvements on factory test system</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.</li></ul> | 1.6.2.0 | 30/11/2018 |

| REV | Description | Version | Date |
|-----|-------------|---------|------|
| AF | <ul><li>Updated the product label for compliance of the UL certification, File Number E496087.</li><li>Included the licence IEC-104 in the BOM of the product.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.</li></ul> | 1.6.2.0 | 03/09/2018 |
| AE | <ul><li>Included support for NX9020 rack.</li><li>Enhancements in SNMP protocol</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.</li></ul> | 1.6.2.0 | 08/02/2018 |
| AD | <ul><li>Added new configuration options for MODBUS Symbolic mode (Server and Slave);</li><li>Added return of Easy Execution command execution status;</li><li>Including support for new Nexto Jet solution modules;</li><li>Improved Ethernet IP protocol;</li><li>Improved support for NVLs.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.</li></ul> | 1.6.1.0 | 02/10/2017 |
| AC | <ul><li>Included support to IEC104 server.</li><li>Included support to mixed analog module NJ6005.</li><li>Homologation of alternative part numbers for components used on this product.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.</li></ul> | 1.6.0.13 | 06/01/2017 |
| AB | <ul><li>Enhancements in performance of the modules hot-swap circuit.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.</li></ul> | 1.6.0.9 | 09/11/2016 |
| AA | <ul><li>Initial revision.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.8.10.</li></ul> | 1.6.0.9 | 08/09/2016 |

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

| REV | Description | Version | Date |
|-----|-------------|---------|------|
| AT | <ul><li>Included a new field in Overview tab of System Web Page informing the version of BCS Tools used by the application.</li><li>Included support to a new part number of LCD display (no change in visual and/or functionality).</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.36.7 | 03/04/2025 |
| AS | <ul><li>Support for BCS Tools 3.63</li><li>Included support to the new diagnostic bNetDefinedByWeb (requires BCS Tools 3.63 or greater)</li><li>Included support for NX8000 (mandatory to check the conditions on User Manual before using it)</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.36.4 | 30/09/2024 |
| AR | <ul><li>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.</li><li>Fixed a problem where the CPU could potentially fail to start after a power-on.</li><li>Fixed a problem where the firmware version could not be informed correctly (zero).</li><li>Fixed a problem with NET Redundant mode which could cause an exception.</li></ul> | 1.14.34.2 | 25/07/2024 |

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| | ▪ Fixed a problem that could incorrectly produce error log messages related to the internal processor temperature.<br>▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using "enforced encryption" option.<br>▪ Improved stability of CAN and RS-485 communication, specially when working simultaneously.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60. | | |
| AQ | ▪ Fixed the CAN interface, which was not working properly on previous versions.<br>▪ Fixed a problem where the internal RS-485 termination was always turned on, independently of the setting selected on CPU configuration screen.<br>▪ Improvements on System Web Page to enhance the reliability and usability.<br>▪ Fixed a problem on firmware update where the process could fail unexpectedly or take longer than expected.<br>▪ Fixed a problem on Docker where the CPU could take too long to change from STOP to RUN after a startup.<br>▪ Fixed the DG LED behaviour when CPU has no application.<br>▪ Fixed NET3 byOperatingState diagnostic when configured as a redundant pair of NET2 (NIC Teaming).<br>▪ Fixed a problem where the OTD button could present a slow response.<br>▪ Fixed a problem on OpenVPN where it could incorrectly show a valid certificate as invalid.<br>▪ 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<br>▪ Included support for Docker feature<br>▪ Included support for FTP<br>▪ Improvements on System Web Page<br>  ▪ Changed the timezone of the Clock Setting to match the user's computer .<br>  ▪ Fixed error that could make the firewall rules not to be applied when the selected interfaces was "any"<br>▪ Fixed a problem related to the Trend Graphic of the WebVisu where the controller could restart if the Application use it<br>▪ Improved firmware update time<br>▪ Removed restriction of local network to perform a firmware update, now allowing to execute this operation remotely.<br>▪ Fixed a problem on RS-485 termination where the setting on CPU configuration was behaving with a inverted logic<br>▪ Fixed the red triangle on NET3 connector in the BCS Tools treeview with the controller in NIC Teaming mode<br>▪ Limited the maximum number of OPC UA Server sessions to 50<br>▪ Fixed error that could generate an exception when downloaded an Application with EtherCAT or PROFINET<br>▪ Fixed a problem where the CPU could potentially fail to restore retain data if turned off on a very specific and short time window during the initialization process<br>▪ Fixed an issue that could make the current Application of the device not to be erased when transfering a new Application through the USB<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60. | 1.14.20.0 | 08/02/2024 |
| AN | ▪ Support for BCS Tools 3.52<br>▪ New graphical design of System Web Page<br>▪ Included support on System Web Page to set the PLC clock (time/date)<br>▪ Removed the requirement of PLC in STOP to perform a firmware | 1.12.29.0 | 05/09/2023 |

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|---|---|---|---|
| | update (now it will stop automatically)<br>▪ Included support to allow changing the Default Gateway of a network interface through SysSockSetDefaultGateway<br>▪ Included support to identify the device through the "wink" command on programming tool.<br>▪ Improvement on the MQTT to support multi-level topics wildcard ('#').<br>▪ Included support for IEC 104 Server protocol (requires BCS Tools 3.52 or greater).<br>▪ Included support to SNMP<br>▪ Fixed a problem that could potentially make the CPU fail to start after a power-on<br>▪ Limited the speed of NET2 and NET3 to 10/100Mbps<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40. | | |
| AM | ▪ Improved capacity of the integrated power supply to withstand modules in-rush current on the power-on of a full bus configuration.<br>▪ Changed the product label due to certification cUL File Number E496087, where the cUL logo was included.<br>▪ 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.<br>▪ Improvements on System Web Page:<br>▪ Included configuration for OpenVPN, Firewall and USB-Ethernet Adapter.<br>▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer.<br>▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default.<br>▪ Optimization in the time required to perform the firmware update process.<br>▪ Fixed USB modem problem where the controller could suffer a memory leak when the modem reconnect multiple times.<br>▪ Fixed interoperability problem where the Ethernet/IP stop to communicate after inserting/configuring an USB modem.<br>▪ Fixed OPC UA interoperability with Kepware.<br>▪ Improvements in OpenVPN and Firewall.<br>▪ Support to the RTL8188EU WiFi adapter.<br>General improvements in the system stability.<br>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40. | 1.12.24.0 | 21/06/2023 |
| AK | ▪ Fixed an issue where the CPU would eventually not enter in RUN after a power-on.<br>▪ 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.<br>▪ Fixed OpenVPN problem that could cause a memory leak when using it as the Gateway for the programming tool.<br>▪ Fixed RTC drift at high operation temperatures.<br>▪ Improved immunity against external electromagnetic interferences.<br>▪ Fixed CAN diagnostics and RTR messages (when DLC is zero) reception.<br>▪ Updated OPC UA Server operational limits to provide better interoperability with Clients.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40. | 1.12.15.0 | 10/03/2023 |

| REV | Description | Version | Date |
|---|---|---|---|
| - | <ul><li>Included support for CODESYS MODBUS Master Serial and TCP.</li><li>Fixed problem where the CPU would evetually not start after a power-on.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.10.53.0 | 12/01/2023 |
| AJ | <ul><li>Minor hardware improvements to fix an internal industrial problem.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.10.51.0 | 17/01/2023 |
| AI | <ul><li>Changed the product label to include CE and UK CA certifications.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.10.51.0 | 05/12/2022 |
| AH | <ul><li>Minor hardware changes in order to improve the product.</li><li>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.</li><li>UKCA Certification marking included on product.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.10.51.0 | 01/12/2022 |
| AA-AG | <ul><li>Initial revision.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.10.51.0 | 21/10/2022 |

## 2.10  BCS-NX3010 – CPU 1 ETH, 2 SERIAL – BJ

| REV | Description | Version | Date |
|---|---|---|---|
| BS | <ul><li>Included support to a new part number of LCD display (no change in visual and/or functionality).</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.14.0 | 03/04/2025 |
| BR | <ul><li>Support for BCS Tools 3.70.</li><li>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.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.12.0 | 30/11/2024 |
| BQ | <ul><li>Support for BCS Tools 3.61</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.18.60.</li></ul> | 1.14.7.0 | 08/02/2024 |
| BP | <ul><li>Fixed a problem related to NX4010 diagnostics on the System Web Page that could cause an internal exception, leading the CPU to stop.</li><li>Fixed a problem related to Ethernet communication that could cause an internal exception on some specific conditions, leading the CPU to stop.</li><li>Fixed OPC UA interoperability with Kepware.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.10.12.0 | 21/11/2023 |
| BO | <ul><li>Support for BCS Tools 3.40.</li><li>Fixed wrong "Factory Missing" log message.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40.</li></ul> | 1.10.8.0 | 15/12/2022 |
| BN | <ul><li>Fixed the retain system to keep the values after a reboot caused by an internal software error.</li><li>Fixed potential exception when an application is removed (reset origin).</li><li>Change of the product label, which now includes a QR Code with</li></ul> | 1.9.4.0 | 19/10/2022 |

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|---|---|---|---|
| | 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.<br>▪ UKCA Certification marking included on product.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | | |
| BM | ▪ New format of firmware update file. This update requires the controller running on firmware version 1.8.13.0 or greater.<br>▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface.<br>▪ 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.<br>▪ Included fixed DNS server settings (8.8.8.8 and 8.8.4.4).<br>▪ Improved NIC Teaming performance.<br>▪ 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.<br>▪ 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.<br>▪ 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.<br>▪ Removed the hidden page "getlogs" from the system web page to improve cyber security.<br>▪ 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".<br>▪ 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.<br>▪ Included protectors for the product connectors.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | 1.8.8.0 | 24/09/2020 |
| - | ▪ Included support to client certificate in the Function Block MQTT Client (requires the BCS Tools 3.23 or greater).<br>▪ Fixed a problem that was not allowing to perform a firmware update when the CPU had an application loaded.<br>▪ 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).<br>▪ Included support for the latest version of LibSQLClient library.<br>▪ General fixes on User Rights Management, which was not working properly on version 1.7.x.x.<br>▪ Updated the RJ45 connector of the Ethernet interfaces.<br>▪ 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.<br>▪ 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.<br>▪ Included support for EtherNet/IP Scanner and Adapter | 1.7.0.14 | 03/10/2019 |

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| | ▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.12.60. | | |
| BE | ▪ Improvement on Ethernet interface to avoid uncontrolled retransmission of ACK message on IP conflict scenarios, which could impact on CPU execution cycle.<br>▪ Fixed the LCD menu for copying application on Memory Card, which was missing since version 1.6.0.11.<br>▪ Fixed log message "Retain restore from file failed" that was incorrectly generated on power on.<br>▪ 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<br>▪ Included a fixed DNS Server configuration (8.8.8.8 and 8.8.4.4)<br>▪ Improvements on Easy Connection feature<br>▪ Fixed a problem on function GetTimeZone, which could cause an exception leading the CPU to STOP.<br>▪ Improvements on GetDateAndTime and GetDayOfWeek functions, which could cause peak on execution time.<br>▪ Fixed treatment of I/O modules on breakpoint condition on projects using machine profile.<br>▪ Removed log message generated when the system time is updated by SNTP (to avoid log being flooded with this message)<br>▪ 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<br>▪ 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<br>▪ 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);<br>▪ Added return of Easy Execution command execution status;<br>▪ Including support for new Nexto Jet solution modules;<br>▪ Improved Ethernet IP protocol;<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40. | 1.6.1.3 | 02/10/2017 |
| AQ | ▪ Included support to IEC104 server.<br>▪ Included support to clock settings.<br>▪ Included support to easy connection.<br>▪ Included support to dynamic IP.<br>▪ Included support to mixed analog module NJ6005.<br>▪ Included support for MSSQL_Client Function Block for accessing Microsoft databases.<br>▪ Homologation of alternative part numbers for components used on this product.<br>▪ 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.<br>▪ Components that belonged to a non-used circuit were removed to reduce the product's structure.<br>▪ 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.<br>▪ 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.<br>▪ Info: This version was built with CODESYS Control Runtime | 1.5.1.7 | 01/06/2016 |

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|---|---|---|---|
| | ▪ Toolkit 3.5.3.50. | | |
| AM | ▪ Included SNTP diagnostics in MIB Private.<br>▪ Fixed possible exception when using projects with Basic profile.<br>▪ Included support for the additional option introduced on BCS Tools 2.05 that allows using Retain and Persistent variables on Function Blocks.<br>▪ Enhancements on EtherCAT protocol when used on situations with heavy traffic on other Ethernet ports.<br>▪ 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.<br>▪ Included support for size flexibility of Retentive and Persistent memory areas.<br>▪ Fixed possible loss of system logs after a power failure.<br>▪ Changed web message in case firmware update failure when there are too many applications running.<br>▪ 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.<br>▪ Fixed a problem which causes exception after na online change in Symbol Configuration.<br>▪ Fixed a problem where the Retain and Persistent are intialized after an exception.<br>▪ 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.<br>▪ Included the support for new 8-position rack NX9000 on diagnostics of web page.<br>▪ Included the support for SNTP.<br>▪ Changed the maximum number of communication channels simultaneouly connected to CPU from 4 to 8.<br>▪ 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.<br>▪ Included the support for Application CRC feature.<br>▪ Included two new hot swap modes: Hot Swap Disabled and Hot Swap Enabled with startup consistency.<br>▪ Included the support for SNMP (agent) protocol supporting MIBII and Private.<br>▪ Included new system logs with userful information to help diagnosis and troubleshooting.<br>▪ System log is now retain (i.e, the log remains on memory even after restarting the CPU).<br>▪ 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.<br>▪ Included the support for NX6020 module.<br>▪ 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).<br>▪ Included the support for the library that provides User Log on Memory Card.<br>▪ Fixed the diagnostic indication in case of failure of the OTD key.<br>▪ Improvements on the Memory Card access.<br>▪ Improvement of CPU boot time.<br>▪ Included the support for NX6010 module.<br>▪ Info: This version was built with CODESYS Control Runtime | 1.3.0.22 | 09/01/2014 |

| REV | Description | Version | Date |
|---|---|---|---|
| | Toolkit 3.4.4.20. | | |
| AF | ▪ Fixed diagnostic with quantities of system restart.<br>▪ Improvement of initialization time.<br>▪ Modified task priorities after RTS reset to keep the same behavior.<br>▪ Improvement in bus scan time.<br>▪ Improvemente and fixes in memory alocation.<br>▪ Fixed the treatment of tasks that access the I/O simultaneously.<br>▪ 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.<br>▪ Enhancement in the communication bus.<br>▪ 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.<br>▪ 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.<br>▪ Enhancement in bus interruption treatment.<br>▪ Modified internal identification code in the firmware.<br>▪ 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<br>▪ Increased compatibility with some memory card models.<br>▪ Fix in web presentation of architecture when used rack expansion.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20. | 1.2.0.9 | 30/10/2012 |
| AA | ▪ Initial revision.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20. | 1.2.0.7 | 23/08/2012 |

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

| REV | Description | Version | Date |
|---|---|---|---|
| BP | ▪ Included support to a new part number of LCD display (no change in visual and/or functionality).<br>▪ 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.<br>▪ 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.<br>▪ 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<br>▪ 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.<br>▪ Fixed a problem related to Ethernet communication that could cause an internal exception on some specific conditions, leading the CPU to stop.<br>▪ Fixed OPC UA interoperability with Kepware.<br>▪ 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.<br>▪ Fixed wrong "Factory Missing" log message<br>▪ 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 | 1.9.4.0 | 01/11/2022 |

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|---|---|---|---|
| | <ul><li>an internal software error.</li><li>Fixed potential exception when an application is removed (reset origin).</li><li>Fixed an exception that occurs when using DBP with its individual elements ON/OFF mapped to MODBUS.</li><li>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.</li><li>UKCA Certification marking included on product.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.</li></ul> | | |
| BJ | <ul><li>In this revision there were only internal changes in the documentation.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.</li></ul> | 1.9.1.0 | 05/04/2022 |
| BI | <ul><li>New format of firmware update file. This update requires the controller running on firmware version 1.8.13.0 or greater.</li><li>Added protection against CSRF (cross-site request forgery) for management pages in web interface.</li><li>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.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.</li></ul> | 1.9.1.0 | 26/07/2021 |
| - | <ul><li>Changed firmware update mechanism to include support for the new file format that will be introduced on upcoming versions.</li><li>Included fixed DNS server settings (8.8.8.8 and 8.8.4.4).</li><li>Improved NIC Teaming performance.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.</li></ul> | 1.8.13.0 | 26/07/2021 |
| BH | <ul><li>Included support for PROFINET Controller.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.</li></ul> | 1.8.10.0 | 21/05/2021 |
| BG | <ul><li>Included support for *"number of connected clients"* diagnostic in status bar. To see this diagnostic, BCS Tools version 3.31 or greater is required.</li><li>Removed the hidden page "getlogs" from the system web page to improve cyber security.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.</li></ul> | 1.8.9.0 | 13/01/2021 |
| BF | <ul><li>Fixed a problem that was not allowing the CPU to go to RUN when the application name was different from the default "Application".</li><li>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.</li><li>Included protectors for the product connectors.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.</li></ul> | 1.8.8.0 | 24/09/2020 |
| BE | <ul><li>Updated the RJ45 connector of the Ethernet interfaces.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.</li></ul> | 1.8.6.0 | 29/04/2020 |
| - | <ul><li>Included support to client certificate in the Function Block MQTT Client (requires the BCS Tools 3.23 or greater).</li><li>Fixed a problem that was not allowing to perform a firmware update when the CPU had an application loaded.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0.</li></ul> | 1.8.6.0 | 05/06/2020 |
| BD | <ul><li>Included support for MQTT Client Function Block (requires BCS Tools 3.19 or greater).</li></ul> | 1.8.3.0 | 27/01/2020 |

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|---|---|---|---|
| | ▪ Included support for the latest version of LibSQLClient library.<br>▪ General fixes on User Rights Management, which was not working properly on version 1.7.x.x.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | | |
| BB-BC | ▪ Fixed the copy from memory card to CPU.<br>▪ 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.<br>▪ 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.<br>▪ Fixed the LCD menu for copying application on Memory Card, which was missing since version 1.6.0.11.<br>▪ Fixed log message "Retain restore from file failed" that was incorrectly generated on power on.<br>▪ 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<br>▪ Included a fixed DNS Server configuration (8.8.8.8 and 8.8.4.4)<br>▪ Improvements on Easy Connection feature<br>▪ Fixed a problem on function GetTimeZone, which could cause an exception leading the CPU to STOP.<br>▪ Improvements on GetDateAndTime and GetDayOfWeek functions, which could cause peak on execution time.<br>▪ Fixed treatment of I/O modules on breakpoint condition on projects using machine profile.<br>▪ Removed log message generated when the system time is updated by SNTP (to avoid log being flooded with this message) | 1.7.0.8 | 11/03/2019 |
| AY | ▪ Small text correction on Installation Guide<br>▪ Updated the product label for compliance of the UL certification, File Number E496087.<br>▪ 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.<br>▪ 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);<br>▪ Added return of Easy Execution command execution status;<br>▪ Including support for new Nexto Jet solution modules;<br>▪ Improved Ethernet IP protocol;<br>▪ 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.<br>▪ Included support to clock settings.<br>▪ Included support to easy connection.<br>▪ Included support to dynamic IP.<br>▪ Included support to mixed analog module NJ6005.<br>▪ Included support for MSSQL_Client Function Block for accessing Microsoft databases.<br>▪ Homologation of alternative part numbers for components used on this product.<br>▪ 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.<br>▪ Components that belonged to a non-used circuit were removed to | 1.5.1.7 | 10/10/2016 |

| | | | |
|---|---|---|---|
| | reduce the product's structure.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40. | | |
| AN | ▪ Changed the product label to comply with the new revision of CE directive.<br>▪ 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.<br>▪ 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.<br>▪ Fixed possible exception when using projects with Basic profile.<br>▪ Included support for the additional option introduced on BCS Tools 2.05 that allows using Retain and Persistent variables on Function Blocks.<br>▪ Enhancements on EtherCAT protocol when used on situations with heavy traffic on other Ethernet ports.<br>▪ 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.<br>▪ Included support for size flexibility of Retentive and Persistent memory areas.<br>▪ Fixed possible loss of system logs after a power failure.<br>▪ Changed web message in case firmware update failure when there are too many applications running.<br>▪ 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.<br>▪ Fixed a problem which causes exception after na online change in Symbol Configuration.<br>▪ Fixed a problem where the Retain and Persistent are intialized after an exception.<br>▪ 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.<br>▪ Included the support for EtherCAT Master.<br>▪ Included the support for new 8-position rack NX9000 on diagnostics of web page.<br>▪ Changed the maximum number of communication channels simultaneouly connected to CPU from 4 to 8.<br>▪ 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.<br>▪ Included the support for Application CRC feature.<br>▪ Included two new hot swap modes: Hot Swap Disabled and Hot Swap Enabled with startup consistency.<br>▪ Included the support for SNMP (agent) protocol supporting MIBII and Private.<br>▪ Included new system logs with userful information to help diagnosis and  troubleshooting.<br>▪ System log is now retain (i.e, the log remains on memory even after restarting the CPU).<br>▪ 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.<br>▪ Included the support for NX6020 module.<br>▪ Info: This version was built with CODESYS Control Runtime | 1.3.0.31 | 30/07/2014 |

| REV | Description | Version | Date |
|---|---|---|---|
| | Toolkit 3.4.4.20. | | |
| AF | ▪ Included the support for MODBUS Symbol drivers (Client/Server and Master/Slave RTU).<br>▪ Included the support for the library that provides User Log on Memory Card.<br>▪ Fixed the diagnostic indication in case of failure of the OTD key.<br>▪ Improvements on the Memory Card access.<br>▪ Improvement of CPU boot time.<br>▪ Included the support for NX6010 module.<br>▪ 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.<br>▪ Improvement of initialization time.<br>▪ Modified task priorities after RTS reset to keep the same behavior.<br>▪ Improvement in bus scan time.<br>▪ Improvemente and fixes in memory alocation.<br>▪ Fixed the treatment of tasks that access the I/O simultaneously.<br>▪ 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.<br>▪ Enhancement in the communication bus.<br>▪ 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.<br>▪ 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.<br>▪ Enhancement in bus interruption treatment.<br>▪ Modified internal identification code in the firmware.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20. | 1.2.1.0 | 22/01/2013 |
| AA | ▪ Initial revision.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20. | 1.2.0.9 | 23/08/2012 |

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

| REV | Description | Version | Date |
|---|---|---|---|
| BR | ▪ Included support to a new part number of LCD display (no change in visual and/or functionality).<br>▪ 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.<br>▪ 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.<br>▪ 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<br>▪ 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.<br>▪ Fixed a problem related to Ethernet communication that could cause an internal exception on some specific conditions, leading the CPU to stop.<br>▪ Fixed OPC UA interoperability with Kepware.<br>▪ Fixed project synchronization when using a custom application | 1.10.12.0 | 17/11/2023 |

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| | name.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.17.40. | | |
| BN | ▪ Support for BCS Tools 3.40.<br>▪ Fixed wrong "Factory Missing" log message<br>▪ 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).<br>▪ Fixed the retain system to keep the values after a reboot caused by an internal software error.<br>▪ Fixed potential exception when an application is removed (reset origin).<br>▪ Fixed an exception that occurs when using DBP with its individual elements ON/OFF mapped to MODBUS.<br>▪ 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.<br>▪ UKCA Certification marking included on product.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | 1.9.4.0 | 01/11/2022 |
| BL | ▪ New format of firmware update file. This update requires the controller running on firmware version 1.8.13.0 or greater.<br>▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface.<br>▪ 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.<br>▪ 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.<br>▪ Included fixed DNS server settings (8.8.8.8 and 8.8.4.4).<br>▪ Improved NIC Teaming performance.<br>▪ 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.<br>▪ Included support for PROFINET Controller.<br>▪ 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.<br>▪ Removed the hidden page "getlogs" from the system web page to improve cyber security.<br>▪ 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.<br>▪ Fixed a problem that was not allowing the CPU to go to RUN when the application name was different from the default "Application".<br>▪ 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.<br>▪ Included protectors for the product connectors.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | 1.8.8.0 | 24/09/2020 |

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| BH | ▪ Updated the RJ45 connector of the Ethernet interfaces.<br>▪ 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).<br>▪ Fixed a problem that was not allowing to perform a firmware update when the CPU had an application loaded.<br>▪ 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.<br>▪ 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).<br>▪ Included support for the latest version of LibSQLClient library.<br>▪ General fixes on User Rights Management, which was not working properly on version 1.7.x.x.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.15.0. | 1.8.3.0 | 27/01/2020 |
| BE-BF | ▪ Fixed the copy from memory card to CPU.<br>▪ 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.<br>▪ 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.<br>▪ Fixed the LCD menu for copying application on Memory Card, which was missing since version 1.6.0.11.<br>▪ Fixed log message "Retain restore from file failed" that was incorrectly generated on power on.<br>▪ Included support to the fix introduced on BCS Tools v3.14 for the error which could cause exception after a switchover of redundant PLC.<br>▪ 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<br>▪ Included a fixed DNS Server configuration (8.8.8.8 and 8.8.4.4)<br>▪ Improvements on Easy Connection feature<br>▪ Fixed a problem on function GetTimeZone, which could cause an exception leading the CPU to STOP.<br>▪ Improvements on GetDateAndTime and GetDayOfWeek functions, which could cause peak on execution time.<br>▪ Improvements on project synchonization between redundant PLCs<br>▪ Fixed treatment of I/O modules on breakpoint condition on projects using machine profile.<br>▪ Removed log message generated when the system time is updated by SNTP (to avoid log being flooded with this message)<br>▪ 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<br>▪ Updated the product label for compliance of the UL certification, File Number E496087.<br>▪ 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.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40. | 1.6.1.3 | 03/09/2018 |

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| AP | ▪ Added new configuration options for MODBUS Symbolic mode (Server and Slave);<br>▪ Added return of Easy Execution command execution status;<br>▪ Including support for new Nexto Jet solution modules;<br>▪ Improved Ethernet IP protocol;<br>▪ Improved synchronization of redundant projects;<br>▪ 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.<br>▪ Included support to clock settings.<br>▪ Included support to easy connection.<br>▪ Included support to dynamic IP.<br>▪ Included support to mixed analog module NJ6005.<br>▪ Included support for MSSQL_Client Function Block for accessing Microsoft databases.<br>▪ Homologation of alternative part numbers for components used on this product.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40. | 1.6.0.11 | 06/01/2017 |
| AN | ▪ Enhancement of factory test software.<br>▪ Components that belonged to a non-used circuit were removed to reduce the product's structure.<br>▪ 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.<br>▪ 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.<br>▪ 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.<br>▪ Fixed possible exception when using projects with Basic profile.<br>▪ Included support for the additional option introduced on BCS Tools 2.05 that allows using Retain and Persistent variables on Function Blocks.<br>▪ Enhancements on EtherCAT protocol when used on situations with heavy traffic on other Ethernet ports.<br>▪ Enhancements on handling of redundant variables forcing.<br>▪ 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.<br>▪ Included support for size flexibility of Retentive and Persistent memory areas.<br>▪ Fixed possible loss of system logs after a power failure.<br>▪ Changed web message in case firmware update failure when there are too many applications running.<br>▪ Incremented the maximum number of redundant areas from 100 to 1024.<br>▪ 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.<br>▪ Fixed forcing of variables on redundant system.<br>▪ Fixed a problem which causes exception after na online change in Symbol Configuration.<br>▪ Fixed a problem where the Retain and Persistent are intialized after an exception.<br>▪ Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40. | 1.5.0.15 | 04/08/2015 |

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| AH | <ul><li>Included the vital failure feature for NETs on projects with half-cluster redundancy.</li><li>Included the support for EtherCAT.</li><li>Included the support for new 8-position rack NX9000 on diagnostics of web page.</li><li>Included the support for.</li><li>Changed the maximum number of communication channels simultaneouly connected to CPU from 4 to 8.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.</li></ul> | 1.5.0.10 | 25/05/2015 |
| AG | <ul><li>Included the support for OPC protocol.</li><li>Included the support for Application CRC feature.</li><li>Included two new hot swap modes: Hot Swap Disabled and Hot Swap Enabled with startup consistency.</li><li>Included the support for SNMP (agent) protocol supporting MIBII and Private.</li><li>Included new system logs with userful information to help diagnosis and  troubleshooting.</li><li>System log is now retain (i.e, the log remains on memory even after restarting the CPU).</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.5.7.40.</li></ul> | 1.4.0.33 | 29/09/2014 |
| AF | <ul><li>Fixed the synchronism of forced BIT variables on redundant systems.</li><li>Included the support for NX6020 module.</li></ul> | 1.3.0.31 | 30/07/2014 |
| AE | <ul><li>Included the support for MODBUS Symbol drivers (Client/Server and Master/Slave RTU).</li><li>Included the support for the library that provides User Log on Memory Card.</li><li>Fixed the diagnostic indication in case of failure of the OTD key.</li><li>Improvements on the Memory Card access.</li><li>Improvement of CPU boot time.</li><li>Included the support for NX6010 module.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.</li></ul> | 1.3.0.22 | 09/01/2014 |
| AD | <ul><li>Fixed diagnostic with quantities of system restart.</li><li>Improvement of initialization time.</li><li>Modified task priorities after RTS reset to keep the same behavior.</li><li>Improvement in bus scan time.</li><li>Improvemente and fixes in memory alocation.</li><li>Fixed the treatment of tasks that access the I/O simultaneously.</li><li>Fixed project synchronization after a restart of standby PLC.</li><li>Fixed the timout to synchronize the project.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.</li></ul> | 1.2.4.0 | 30/09/2013 |
| AC | <ul><li>Enhancement and fix in bus interruption treatment.</li><li>Enhancement in the communication bus.</li><li>Fix in the redundant project synchronism.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.</li></ul> | 1.2.2.3 | 28/06/2013 |
| AB | <ul><li>Changed the bill of materials to add the earthing spring holder.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.</li></ul> | 1.2.1.0 | 12/04/2013 |
| AA | <ul><li>Initial revision.</li><li>Info: This version was built with CODESYS Control Runtime Toolkit 3.4.4.20.</li></ul> | 1.2.1.0 | 22/01/2013 |

### 2.13  BCS-NX8000 - 30W 24VDC PSU - BJ

| REV | Description | Version | Date |
|---|---|---|---|
| AQ | <ul><li>Minor hardware changes in order to improve the product.</li><li>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.</li><li>UKCA Certification marking included on product.</li></ul> | NA | 01/12/2022 |
| AP | <ul><li>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.</li></ul> | NA | 26/07/2021 |
| AO | <ul><li>Updated the product label for compliance of the UL certification, File Number E496087.</li></ul> | NA | 04/06/2020 |
| AK-AN | <ul><li>These revisions were skipped due to integration of internal documentation</li></ul> | - | - |
| AJ | <ul><li>This new product revision is related to the change in the overlay material.</li></ul> | NA | 12/09/2018 |
| AI | <ul><li>Homologation of alternative part numbers for components used on this product.</li></ul> | NA | 19/12/2016 |
| AH | <ul><li>Changed the product label to comply with the new revision of CE directive.</li></ul> | NA | 22/09/2016 |
| AG | <ul><li>Enhancement on test system for test of  NX3004.</li></ul> | NA | 30/12/2015 |
| AF | <ul><li>Enhancement on test system to improve detection of module interference on WSDE line (rack number).</li></ul> | NA | 17/06/2014 |
| AE | <ul><li>Changed the maintenance procedure.</li></ul> | NA | 20/05/2014 |
| AD | <ul><li>Changed the bill of materials to add the earthing sping holder.</li></ul> | NA | 12/04/2013 |
| AC | <ul><li>RoHS compliant revision.</li></ul> | NA | 22/01/2013 |
| AB | <ul><li>Label printed using a new printer.</li></ul> | NA | 30/10/2012 |
| AA | <ul><li>Initial revision.</li></ul> | NA | 31/08/2012 |

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

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

### 2.15  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.<br>▪ 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.<br>▪ Changes the time of Burn In. | 1.2.0.20 | 15/08/2017 |
| AJ | ▪ Enhancements for reducing the threshold voltage of internal voltage regulator. | 1.2.0.20 | 01/02/2017 |
| AI | ▪ Enhancement in factory process.<br>▪ 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.<br>▪ Fixed the support of filters for the inputs of Group 1. | 1.2.0.20 | 28/10/2015 |
| AF | ▪ Approval on EtherCAT Conformance Test.<br>▪ 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 |

### 2.16  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.<br>▪ 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.<br>▪ 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 | 1.3.0.7 | 05/12/2018 |

| REV | Description | Version | Date |
|---|---|---|---|
| | including other module in test system. | | |
| 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.<br>• Enhancements in detection of 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).<br>• Addition of a new scale +-5Vdc.<br>• 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.<br>• 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.<br>• 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.<br>• Changed the EtherCAT vendor ID. | 1.0.1.2 | 21/02/2013 |
| AA | • Initial revision. | 1.0.0.14 | 24/10/2012 |

## 2.17  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.<br>• 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.<br>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 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.<br>• 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).<br>• 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 |

## 2.18  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.<br>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.<br>• Fixed the OTD button test on factory test mode.<br>• Enhancement on the module's reconfiguration after communication | 1.0.0.3 | 15/05/2014 |

| REV | Description | Version | Date |
|-----|-------------|---------|------|
|     | loss. | | |
| AA | ▪ Initial revision. | 1.0.0.0 | 21/02/2014 |

### 2.19  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.<br>UKCA Certification marking included on product. | 1.2.0.8 | 04/05/2023 |
| AM | ▪ Minor improvement in the external mechanics of the product, without significant impact. | 1.2.0.8 | 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. | 1.2.0.8 | 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.<br>▪ 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.<br>▪ 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.<br>▪ 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 |

### 2.20  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.<br>▪ 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.<br>▪ 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.<br>▪ 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 |

### 2.21  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.<br>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).<br>▪ | 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.<br>▪ 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.<br>▪ 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 |

### 2.22  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.<br>▪ Included the support for operation with Xtorm Series. | | 1.1.0.5 | 26/06/2014 |
| 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.<br>▪ Enhancement in the OTD function of the factory test.<br>▪ 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 |

## 2.23  BCS-NX4010 - REDUNDANCY LINK MODULE - BJ

| REV | Description | Version | Date |
|---|---|---|---|
| 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.<br>▪ 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 |

## 2.24  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 |

| REV | Description | Version | Date |
|---|---|---|---|
| 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 |

### 2.25  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 | ▪ Impoevments on the package (included a plastic bag). | NA | 09/12/2014 |
| AD | ▪ Impoevments on the Factory Test system. | NA | 22/01/2014 |
| AC | ▪ Impoevments 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 |

### 2.26  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 | ▪ Impoevments 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.<br>▪ RoHS compliant revision. | NA | 14/03/2013 |
| AA | ▪ Initial revision. | NA | 24/10/2012 |

## 2.27  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.<br>▪ RoHS compliant revision. | NA | 26/04/2013 |
| AA | ▪ Initial revision. | NA | 24/10/2012 |

## 2.28  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 |

## 2.29  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.<br>▪ 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 |

## 2.30 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, File Number E496087<br>▪ Simplification of the production process | NA | 26/03/2018 |
| 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 |

## 2.31 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.<br>▪ 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 |

## 2.32 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 |

## 2.33 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.<br>▪ 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 |

## 2.34 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.<br>▪ Updating of the documentation of the packaging procedure, which changed the internal code of the label used. | NA | 11/01/2018 |
| AA | ▪ Initial revision. | NA | 05/08/2013 |

## 2.35 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.<br>▪ 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 |

## 2.36 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 |

## 2.37 BCS–NX9405 – 12-TERMINAL CONNECTOR  SCREW FIXING - BJ

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

## 2.38 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 |

## 2.39  BCS-NX5001 - PROFIBUS DP MASTER MODULE - BJ

| REV | Description | Version | Date |
|---|---|---|---|
| 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.<br>▪ 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.<br>▪ 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.<br>▪ Included the support to synchronize input data and output-data of DP-Slaves (Global Control Commands: Freeze/Unfreeze/Sync/Unsync).<br>▪ Included the support to new Project Profile called "Machine Profile".<br>▪ 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 |

## 2.40  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.<br>▪ 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 introduction on production line, this update may be present in some units before this revision. | 1.2.0.3 | 30/07/2021 |
|---|---|---|---|
| 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.<br>▪ 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 |

### 2.41  BCS-NX5110 - PROFIBUS DP HEAD - BJ

| REV | Description | Version | Date |
|---|---|---|---|
| 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 | ▪ Support for new modules NX6014 and NX6134 (only analog I/O functionality, HART over PROFIBUS is not available yet). | 1.2.3.0 | 21/11/2023 |
| AW | ▪ Updated the product label that was changed to contain a QR Code and a link to its technical documentation and also to include UKCA certification. | 1.2.0.0 | 16/11/2023 |
| AV | ▪ New format of firmware update file. This update requires the controller running on firmware version 1.9.29.0 or greater.<br>▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface.<br>▪ 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.<br>▪ 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 | 1.1.1.16 | 11/01/2017 |

| REV | Description | Version | Date |
|---|---|---|---|
| | this product. | | |
| 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).<br>▪ 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.<br>▪ 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.<br>▪ 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 |

## 2.42  BCS-NX5210 – REDUNDANT PROFIBUS DP HEAD - BJ

| REV | Description | Version | Date |
|---|---|---|---|
| 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 | ▪ Support for new modules NX6014 and NX6134 (only analog I/O functionality, HART over PROFIBUS is not available yet). | 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.<br>  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 1.9.29.0 or greater.<br>▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface.<br>▪ 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.<br>▪ Updated the product label for compliance of the UL certification, | 1.1.2.5 | 12/01/2019 |

| REV | Description | Version | Date |
|---|---|---|---|
| | File Number E496087.<br>▪ Change in the product overlay to fix the opening of the display window. | | |
| 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.<br>▪ Fixed a compatibility issue with PROFIBUS Master from AL Series AL-3406<br>▪ Enhancements on the redundancy feature. | 1.1.1.16 | 15/01/2016 |
| AD | ▪ Included support for Scan Devices feature.<br>▪ 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.<br>▪ Enhancements to the network redundancy algorithm. | 1.0.0.15 | 29/01/2015 |
| AA | ▪ Initial revision. | 1.0.0.12 | 15/12/2014 |

## 2.43  BCS-NX5100 – MODBUS TCP HEAD – BJ

| REV | Description | Version | Date |
|---|---|---|---|
| AQ | ▪ Included support to a new part number of LCD display (no change in visual and/or functionality).<br>▪ Improvements on System Web Page to enhance the reliability and usability.<br>▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using "enforced encryption" option.<br>▪ 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<br>▪ 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:<br>▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer.<br>▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default.<br>▪ Optimization in the time required to perform the firmware update process. | 1.12.23.0 | 22/06/2023 |
| AL | ▪ No modification in the product (production documentation changed). | 1.12.5.3 | 30/05/2023 |
| AK | ▪ Support for BCS Tools 3.40.<br>▪ Fixed possible issue where the Web Page turns unaccesible after using it for a very long time.<br>▪ Fixed potential exception when an application is removed (reset | 1.12.5.3 | 15/12/2022 |

| REV | Description | Version | Date |
|---|---|---|---|
| | origin). | | |
| AJ | ▪ Minor improvement in the production process.<br>▪ 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.<br>▪ 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.<br>▪ Added protection against CSRF (cross-site request forgery) for management pages in web interface.<br>▪ 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.<br>▪ 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.<br>▪ 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 |

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

| REV | Description | Version | Date |
|---|---|---|---|
| AN | ▪ Included support to a new part number of LCD display (no change in visual and/or functionality).<br>▪ Improvements on System Web Page to enhance the reliability and usability.<br>▪ Fixed a problem which would prevent the communication between BCS Tools and CPU when using "enforced encryption" option.<br>▪ 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<br>▪ New graphical design of System Web Page | 1.12.29.0 | 05/09/2023 |
| AK | ▪ Improvements on System Web Page:<br>▪ New Network tab, which now allows to change the IP configuration and also re-introduces the embedded network sniffer.<br>▪ Login unification (now it will be requested only in the Management tab). After the update, the credentials will be reset to default.<br>▪ 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.<br>▪ Fixed possible issue where the Web Page turns unaccesible after using it for a very long time.<br>▪ 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.<br>▪ 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.<br>▪ 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.<br>▪ 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).<br>▪ Fixed "wrong slot" problem related to the usage of the NX9020 rack.<br>▪ 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 |

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

| REV | Description | Version | Date |
|---|---|---|---|
| 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 | 23/01/23 |
| 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 | 16/11/21 |
| AG-AJ | ▪ These Reviews were ignored due to the integration of internal documentation | - | - |
| AF | ▪ Inclusion of the Installation Guide in the product BOM.<br>▪ 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.<br>▪ 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 |

### 2.46   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.<br>▪ 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 |

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

| REV | Description | Version | Date |
|---|---|---|---|
| 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.<br>▪ 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.<br>▪ 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.<br>▪ 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 |

### 2.48   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. | 1.4.0.0 | 17/04/2023 |

| | | | |
|---|---|---|---|
| | UKCA Certification marking included on product. | | |
| 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.<br>▪ Enhancements in detection of loss of bus master.<br>▪ Inclusion of the Installation Guide in the product BOM.<br>▪ 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 |

## 2.49  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.<br>▪ 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 |

## 2.50  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.<br>▪ 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 |

| | | REV | Version | Date |
|---|---|---|---|---|
| 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 |

## 2.51 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.<br>▪ 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 units before this revision. | 1.0.0.14 | 30/07/2021 |
| 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.<br>▪ Inclusion of the Installation Guide in the product BOM.<br>▪ 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 |

## 2.52 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 | 1.0.0.16 | 16/05/2023 |

| REV | Description | Version | Date |
|---|---|---|---|
|  | documentation, in which similar products were changed, which did not affect this product. |  |  |
| 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 |

## 2.53  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 product. | 1.1.0.8 | 06/01/2022 |
| 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. | 1.1.0.8 | 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 |

## 2.54  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, | 1.2.0.9 | 22/02/2023 |

| REV | Description | Version | Date |
|---|---|---|---|
| | but do not need to be mounted on the printed circuit board. | | |
| 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.<br>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.<br>▪ 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.<br>▪ 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 |

## 2.55 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.<br>▪ 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 |

## 2.56 GSD Files - PROFIBUS DP HEAD NX OEM

| REV | Description | Scope | Version | Date |
|---|---|---|---|---|
| AB | ▪ Included new scales for NX6000 and NX6020 modules.<br>▪ 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 BCS-MT8500/ADV – BCS-MT8500/LITE - BCS-MT8500/PRO - BCS-MT8500/BASIC – BCS-MT8500/BIG

| REV | Description | Version | Date |
|---|---|---|---|
| BH | • 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.<br>• Fixed configuration issues with GT-3C74, GT-3C78, GT-3C94, and GT-3C98 modules in the Distributed IO Configurator.<br>• Changed the default MainTask interval to 100ms for NX CPUs.<br>• 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.<br>• Changed the default option of "Enable diagnosis for devices" in the PLC Settings to Disabled (it was enabled in version 3.40).<br>• Info: This version was built with CODESYS Development System 3.5.18.60. | 3.71 | 24/03/2025 |
| BG | • Added support for "Codesys Control Win V3 x64" (demo mode only).<br>• Added official support for SparkPlugB Library.<br>• Added new screen which shows the memory consumption on projects with NX and XP CPUs (Device/MemoryConsumption).<br>• 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.<br>• Changed to enable the 'Write Complete PDO Configuration' checkbox in the CANOpen configurator.<br>• Updated the BSD Device Configurator to change the STRUCT and library to remove 8-bit datatype variables.<br>• Updated the CFC package to enhance performance in the refactoring feature.<br>• Fixed an internal error in BCS Tools that occurred during project updates when an external library was using an outdated version of library IoDrvNextoModbus.<br>• Fixed an issue that could result in error when trying to add an OPC UA Information Model to the project.<br>• Fixed an issue in redundant projects using Modbus Direct, where the execution of a STOP command for a CPU was experiencing significant delays.<br>• 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.<br>• Fixed an issue where the Redundancy Configuration could not effectively apply a modification after a specific sequence of unchecking and checking an item.<br>• Fixed an issue where the EtherCAT task cycle time verification was not functioning correctly for X2 devices.<br>• Fixed compilation errors encountered when creating projects with GN-9372 (SP11).<br>• Fixed the BSD Device Configurator in Px mode, where some variables were incorrectly fixed.<br>• Fixed the issue with project updates when an external EDS was not installed prior to the update.<br>• Fixed the message displayed when the user executes the stop command in redundant projects. | 3.70 | 29/11/2024 |

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| | • Improved performance by removing the check for the limit on the number of variables in a POU.<br>• Improved the Easy Connection confirmation message to prompt users to save a project backup.<br>• Removed the Tools/Package Manager command.<br>• Info: This version was built with CODESYS Development System 3.5.18.60. | | |
| BF | • Added support to use NX8000 with NX3008.<br>• Added new J1939 Database (discontinued in 3.40).<br>• Added diagnostic to inform when the network configuration is defined by the system webpage.<br>• Added support for GT-3744, GT-4314, M3744, and M4314 modules on Distributed IO Configurator.<br>• Added ML9089 Ethernet IP device.<br>• Updated BSD Drive Configurator to support Px and CSx modes.<br>• Updated DD files for Beijer BSD devices.<br>• Updated G series devices:<br>   ▪ PIO devices.<br>   ▪ GL-9086 EtherCAT device.<br>   ▪ GL-9087 PROFINET device.<br>   ▪ GL-9386 EtherCAT device.<br>   ▪ GN-9222 Profibus DP device.<br>• Updated M series devices:<br>   ▪ PIO devices.<br>   ▪ M9222 Profibus DP device.<br>   ▪ M9287 PROFINET device.<br>   ▪ M9386 EtherCAT device.<br>• Fixed a namespace problem on MQTT wizard which caused a compilation error.<br>• Fixed an MQTT Wizard code to accept all types of variables in a Publisher message tag.<br>• Fixed an issue on Wizard which was showing duplicate option J1939_ECU for X2.<br>• Fixed some library references for PIO and X2.<br>• Removed (discontinued) the parameter "Enable I/O update per task" for NX3008.<br>• Info: This version was built with CODESYS Development System 3.5.18.60. | 3.63 | 30/09/2024 |
| BE | • Added GN-9261 Distributed IO Configurator.<br>• Added BFI CANopen Configurator.<br>• Added BFI PROFINET Configurator.<br>• Added "Search in Documents" button feature.<br>• Added a command "Compare" in the Restore Points feature.<br>• Added a new object with a Wizard to create a POU for Datalogger Function Block.<br>• Added a new object with a Wizard to create a POU for MQTT Function Block.<br>• Added commands "Reorder List and Clear Gaps", "Save Current Values to Recipe" and "Restore Values from Recipe" in the "Declaration" menu.<br>• Added support for updating different versions of runtime systems for X2/BoX2 devices.<br>• Enabled command "Scan for Devices…" for EtherNet/IP and CANopen.<br>• Enabled the "Update device" command for CAN, EtherNET/IP, EtherCAT and PROFINET protocols.<br>• Enabled "Master Fault Action" in the EtherCAT Distributed IO Configurator.<br>• Fixed a problem introduced on version 3.60 where some drivers can | 3.62 | 07/06/2024 |

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| | stop working after a second download in NX3008.<br>• Fixed a problem where COM1 TYPE could be incorrect after a project update changing CPU model.<br>• Fixed a problem where Modbus Symbol mappings could be corrupted after copy and paste from other projects.<br>• Fixed a problem where, under rare conditions, a Modbus reconnection could cause an exception.<br>• Fixed general translation errors.<br>• Improved readability of messages from Drives Configurator when updating Drives.<br>• Moved cache build to the end of the install process to optimize the first execution of the program.<br>• Updated EDS files for Beijer BFI devices.<br>• Updated BCS Tools 3.62 CANopen package to 4.2.0.0.<br>• Disabled the 'Scan for Devices' command while logged in.<br>• Info: This version was built with CODESYS Development System 3.5.18.60. | | | |
| BD | • Added support to PROFINET Dual-port Controller for MRP on NX3008.<br>• 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.<br>• Added BFI Modbus TCP Configurator.<br>• Added BootP Server.<br>• Added Advanced PID Control function block PIDA to all Beijer devices.<br>• 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.<br>• Added a message to confirm "Import Online Variables".<br>• Added a new command "Build" under Build menu.<br>• Added a new command "Release Notes" under Help menu.<br>• Added an option to enable/disable the BSD/BFI EtherCAT autogenerated code.<br>• Added documentation in various libraries to enhance user guidance.<br>• Added support for ".projectarchive" files on "Open project" command.<br>• Added support for GT-2418, GT-2428, GT-2734, and GT-3901 modules on Distributed IO Configurator.<br>• Added support for selection of other languages.<br>• Added support for Static Analysis Light.<br>• Changed PIDControl to create its objects inside folders for better project organization.<br>• Changed the "Communication Settings" style from "Classic mode" to "Simple mode".<br>• Changed the default path for new projects to a dedicated folder.<br>• Changed the default profile of new projects to "Machine".<br>• Changed the default setting to use the "Textual View" in the POUs/GVLs.<br>• 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.<br>• Changed the name of the license "Big Program" to "UNITED".<br>• Changed to register as the default program to open .project and .projectarchive extensions.<br>• Fixed a problem in the project update with an NX5100.<br>• Fixed a problem on Webvisu which could prevent the application to start when the option "Overwrite existing trace on PLC" is unchecked.<br>• 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. | 3.60 | 08/02/2024 |

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| | <ul><li>Fixed a problem that prevented more than one tool from connecting at the same time in the controller.</li><li>Fixed a problem that was making the login process hang for several seconds when Source Download option was set to "Prompt at download".</li><li>Fixed a problem where a change in the description of NX and NJ modules could not be applied.</li><li>Fixed a problem where NX and NJ modules could not be properly updated after a Project Update.</li><li>Fixed a problem where the module description could not be saved properly after a Project Update.</li><li>Fixed an invalid device log message "Demo mode for IO-Link expired (license not installed)".</li><li>Fixed the number of analog inputs on IntegratedIO GVL for XP3xx.</li><li>Improved the performance of code generation, especially in projects with symbolic variable mappings.</li><li>Improved the performance to open a project.</li><li>Optimized the processing of MODBUS Master (Serial) requests, which can significantly improve the communication performance on networks with several slaves.</li><li>Removed (discontinued) the CPU parameters "TCP/IP Parameters" for all CPUs models.</li><li>Removed (discontinued) the functionality "Diagnostic Explorer".</li><li>Removed the limit of the quantity of variables on Symbol Configurator.</li><li>Updated BFI EtherCAT library.</li><li>Updated BFI Modbus RTU library.</li><li>Updated editor of Ladder Logic Diagram (LD) with several improvements.</li><li>Updated EtherNet/IP, Profinet, and EtherCAT communication drivers, removing all customizations. Previous projects may require adjustments.</li><li>Updated Gateway program, removing all customizations.</li><li>Updated GN-9222 Profibus DP device.</li><li>Updated the version of CodeMeter to support Soft Container licenses on Workstation (Device licensing not supported yet).</li><li>Info: This version was built with CODESYS Development System 3.5.18.60.</li></ul> | | |
| BB | <ul><li>Added support for NX6014 and NX6134 on PROFIBUS head NX5110 and NX5210.</li><li>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.</li><li>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.</li><li>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.</li><li>Info: This version was built with CODESYS Development System 3.5.17.40.</li></ul> | 3.53 | 16/11/2023 |
| BA | <ul><li>Added support to IEC 60870-5-104 Server protocol on NX3008 CPU.</li><li>Fixed a problem introduced on previous version which was causing error when adding I/O modules on NX5100 and NX5101 MODBUS TCP Heads.</li><li>Changed the minimum MainTask interval to 1ms for all CPUs and project profiles.</li><li>Increased the XP350 data memory from 2MB to 6MB and the program memory from 3MB to 8MB.</li><li>Removed "Output state in STOP" parameter (discontinued) from NX1005, NX2001, NX2020 and NX6100.</li><li>Info: This version was built with CODESYS Development System 3.5.17.40.</li></ul> | 3.52 | 01/09/2023 |

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| AZ | <ul><li>Added new PIO targets:<ul><li>PIO GN-9373.</li><li>PIO M9372.</li><li>PIO M9373.</li></ul></li><li>Added GT-2348 and GT-228F in BCSTools.</li><li>Added new field in wizard to choose different versions of runtime systems for PIO devices.</li><li>Added support for updating different versions of runtime systems for PIO devices.</li><li>Added command "Create POUs from Template" for CFC language.</li><li>Added PLC Settings tab on the target device.</li><li>Improved design of NET interfaces configuration for better usability and uniformity.</li><li>PID Auto-tune improvements (NextoPID library):<ul><li>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.</li><li>The error PEAK_TOO_LOW changed to avoid unnecessary aborts of auto-tuning.</li><li>The error CYCLE_TOO_FAST was eliminated to avoid unnecessary aborts of auto-tuning.</li><li>The error HIGH_DEAD_TIME was eliminated to avoid unnecessary aborts of auto-tuning.</li></ul></li><li>PID ControlPWM block improvements (NextoPID library): this block 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.</li><li>Fixed 'File transfer error' when logging in with PIO controllers.</li><li>Fixed "Export Online Variables" problems with more than 10.000 variables.</li><li>Fixed simulation mode to work using port 11739.</li><li>Fixed error in 'Recipe Management' with X2, BoX2 and PIO's devices.</li><li>Removed GL-9971 PIO from BCSTools.</li><li>Updated version of EtherNet/IP driver:<ul><li>Fixed problems when using one BYTE + one BOOL.</li><li>Fixed a problem that was triggering an Online Change even with no changes on the project.</li><li>Fixed a problem where Ethernet/IP Scanner would not update %I in RUN when option "Update I/O while in stop" is checked.</li><li>Removed the limit of 511 bytes of input or output per connection.</li><li>Changed the default task of the IO Cycle of EtherNet/IP Scanner and Adapter from MainTask to an exclusive task.</li></ul></li></ul> | | 3.51 | 19/06/2023 |
| AY | <ul><li>Added Distributed IO Configurator.</li><li>Added BSD/BFI Configurator.</li><li>Added Documents feature.</li><li>Added Restore Points feature.</li><li>Added export tags for iX Developer feature.</li><li>Added ModBus TCP Master and Modbus RTU compatibility with Nexto Xpress series and NX3008.</li><li>Added support for XP350 PLC with SoftMotion.</li><li>Added support to run Python scripts.</li><li>Included a new command to remove the current license (returning to Lite).</li><li>Updated GN-948x devices.</li><li>Fixed MODBUS RTU Master request diagnostic not working with more than 128 requests.</li><li>Fixed I/O mapping update for EtherCAT devices.</li><li>Fixed 'Scan for devices' command doesn't work with X2 and PIO controllers.</li></ul> | | 3.50 | 19/01/2023 |

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| | <ul><li>Fixed general screen size and translation problems.</li><li>Fixed the "Invalid result package" error message when trying to login to the CPU with incompatible firmware.</li><li>Added, by default, VAR and END_VAR in PLC_PRG.</li><li>Info: This version was built with CODESYS Development System 3.5.17.40.</li></ul> | | |
| AX | <ul><li>Added support to new CPU NX3008.</li><li>Added verification to check for the presence of non-related variables inside redundant areas.</li><li>Added Reset Origin Device Command.</li><li>Added support to EtherCAT Master for all Nexto Xpress.</li><li>Added LibIntegratedIoExt which allows to use additional analog inputs on Nexto Xpress.</li><li>Added a compilation error message when user uses REFERENCE TO in persistent vars.</li><li>Fixed Online Change performance, which was degraded since version 3.31.</li><li>Fixed login performance when several CFC POUs windows were opened.</li><li>Fixed an issue where mappings of MODBUS Symbol Client and Master could stop to work (frozen values) after an online change.</li><li>Fixed an issue where graphical elements could show a red "X" ending on a crash due to GDI handle leak.</li><li>Fixed an issue where deleting unused symbols on Symbol Configuration could lead to exception on OPC UA Server.</li><li>Fixed an issue where changing the execution order of CFC POU with online change could lead to a PLC exception.</li><li>Fixed BCS Tools crash error after closing ModBus Server window when opening a project without updating it.</li><li>Fixed an issue where changing focus in and out on NET fields results on project change.</li><li>Fixed BCS Tools crash error when changing Watchdog of MainTask on Xpress controller.</li><li>Fixed an issue where Project Compare could show differences for identical CFC POUs.</li><li>Fixed declaring the libraries dependencies as placeholders.</li><li>Increased the maximum size of Program Memory from 2MB to 3MB on XP300/XP315/XP325.</li><li>Increased the maximum size of Program Memory from 6MB to 8MB on XP340 and NX3005.</li><li>Removed limit of 500 assemblies on EtherNetIP Scanner.</li><li>Updated version of EtherCAT Master driver.</li><li>Updated LibNextoPID library containing new standard and advanced control functions.</li><li>General improvements on Portuguese and English texts.</li><li>Changed the minimum required firmware for PIOs Targets.</li></ul> | 3.40 | 08/12/2022 |
| AW | <ul><li>Added minimum required firmware check routine in the X2/BoX2/PIO targets.</li><li>Added new message box to notify user if a new version is available for download.</li><li>Added rules to allow adding only PLC compatible devices.</li><li>Added new command Create POUs from Template.</li><li>Added new PIO targets:<ul><li>PIO GL-9973.</li><li>PIO GL-9974.</li><li>PIO GL-9975.</li></ul></li><li>Added new wizard features:<ul><li>Combo box to categorize devices during project creation.</li><li>Fieldbus wizard configuration (protocol + slave + amount of slaves).</li></ul></li></ul> | 3.34 | 16/02/2022 |

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| | ▪ Added start and stop system events in project template.<br>▪ MODBUS Symbol:<br>　▪ Fixed MODBUS Client/Server does not support ambiguous variables.<br>　▪ Fixed bug that IntegratedIO Tags don't work with Modbus.<br>　▪ Fixed exception in the PLC when changing the size of the array mapped in MODBUS.<br>▪ Project Update:<br>　▪ New User Interface.<br>　▪ Correct version displaying.<br>　▪ Removed Project Environment window.<br>　▪ Added LAN port name update for Ethernet and EtherCAT devices when upgrading projects created in previous versions to HMI X2.<br>　▪ Fixed behavior that caused the project to break when updating without saving first.<br>　▪ Fixed invalid version format error when updating X2 devices with Ethercat Slaves.<br>▪ Reduced CPU consumption when logged in.<br>▪ Fixed window behavior not closing during code generation.<br>▪ Fixed wizard behavior not correctly displaying ethernet interface choices.<br>▪ Fixed Modbus TCP Slave configuration tabs that were not displayed.<br>▪ Fixed exception when loss connection to the PLC.<br>▪ Fixed compilation error when using J1939 ECU device in projects with X2 modules.<br>▪ Fixed Gateway conflict message with other Gateways already installed.<br>▪ Fixed incorrect channel and description texts in Integrated I/O page.<br>▪ Fixed keyboard shortcuts S and N for Write and Force dialogs in Portuguese language.<br>▪ Fixed improper add of GVLs IoQualities and Modules_Diagnostic when opening project created on previous versions.<br>▪ Fixed issue that allows Maintask interval greater than 100 ms in projects with Machine Profile.<br>▪ Fixed missing .DLL that causes problemas in Trace object of previous versions.<br>▪ Removed the 'Enable retain and persistent variables in function blocks' checkbox from CPU parameters page.<br>▪ Removed 'Scan for Devices' command for PROFIBUS devices.<br>▪ Removed software license update window during startup.<br>▪ Removed access to startup application settings.<br>▪ Info: This version was built with CODESYS Development System 3.5.17.40. | | |
| AV | ▪ Added new target PIO GL-9972.<br>▪ Added new Ethernet/IP adapter GN-9089.<br>▪ Added new PROFINET Device GL-9087.<br>▪ Added new PROFINET Device GN-9287.<br>▪ Added CSV import and export tab of I/O mappings.<br>▪ Fixed issue in MODBUS Symbol RTU Master that makes mappings stop to work after an online change.<br>▪ Fixed issue in MODBUS Symbol RTU Slave that makes mappings stop to work after an online change.<br>▪ Fixed crash after closing the Clock Settings dialog.<br>▪ Fixed application startup exception when declaring arrays of function blocks in retain or persistent areas.<br>▪ Fixed system out of memory error caused by changes in Redundancy configuration.<br>▪ Fixed J1939 device issue regarding stack version.<br>▪ Fixed issue that made impossible to delete the copies of UserPrg POU.<br>▪ Fixed the startup with invalid international settings.<br>▪ Fixed issue in PID Control editor that causes malfunction after performing a 'clean all' command. | 3.33 | 24/09/2021 |

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| | <ul><li>Created "OPC UA" device category</li><li>Unchecked, by default, the 'Recipe management in the PLC' option in the 'Recipe Manager' object.</li><li>Renamed bit bReserved05 to bHardwareFailure for Ponto series module PO1213.</li><li>Updated BFI inverters devices.</li><li>Updated Ethernet/IP GN-9289 device.</li><li>Updated G-Series Modules and PIO targets.</li><li>Improved the project template for PIO Beijer devices.</li><li>Improved the project template for X2/BoX2 Beijer devices.</li><li>Improvements in NX5000 redundancy performance.</li><li>Improvements in Portuguese translation.</li><li>Info: This version was built with CODESYS Development System 3.5.15.55.</li></ul> | | |
| AU | <ul><li>Fixed improper online change request due to IoDrvNextoRedundancy library.</li><li>Fixed improper online change request due to LibDatabaseManager library.</li><li>Fixed the overlap of I/O addresses for PROFINET devices.</li><li>Improvements in PROFIBUS diagnostics for Ponto Series slaves.</li><li>Info: This version was built with CODESYS Development System 3.5.15.55.</li></ul> | 3.32 | 11/06/2021 |
| AT | <ul><li>Added new target GL-9971 (PIO).</li><li>Added OPC UA for GN-937x (PIO).</li><li>Added 'Declarations > Add all instance paths' command for PersistentVars.</li><li>Added confirmation dialog for force variables command (F7).</li><li>Added confirmation dialog for write variables command (Ctrl + F7).</li><li>Added 'Connected Clients' counter in the status bar (requires compatible firmware).</li><li>Added support to System Events.</li><li>Added support to reStructuredText documentation for libraries.</li><li>Added Application tab on target device.</li><li>Added 'Scan for Devices' feature for all Beijer devices.</li><li>Added 'Disable Device' command present in the Devices tab.</li><li>Added the default configuration 'Auto-reconnect' on the Modbus TCP Master device for GN-9372 and GL-9971.</li><li>Fixed compatibility with projects created between versions 3.15 and 3.23.</li><li>Fixed issue in MODBUS Symbol Server that makes mappings stop to work after an online change.</li><li>Fixed issue in MODBUS Symbol Client that makes mappings stop to work after an online change.</li><li>Fixed issue that makes 'subsequent' attribute don't be applied on online change.</li><li>Fixed issue that makes new objects marked in Redundancy Configuration don't be applied on online change.</li><li>Fixed Ethernet/IP Scanner to proper work with I/O bit mapping from existing symbolic variables.</li><li>Fixed 'Scan for Devices' command of EtherCAT Master on online mode.</li><li>Fixed compile error for GVLs with attribute 'qualified_only' in Redundancy Configuration.</li><li>Fixed improper download request for Nexto projects with EtherCAT Master.</li><li>Fixed improper online change request for projects with CFC's POUs.</li><li>Fixed behavior of pulse variables (Special_Variables GVL) for projects with "Basic" profile.</li><li>Fixed issue that put project with Symbol Configuration in dirty state after opening.</li><li>Fixed the installation conflict with Codesys 3.5 SP15 Patch 5.</li></ul> | 3.31 | 16/04/2021 |

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| | <ul><li>Enabled 'Download Application Info' option for all targets.</li><li>Removed command "Tools > Import and Export Options".</li><li>Improvements in Portuguese translation.</li><li>Improvements in online help (Nexto Xpress resolution of PT100 and PT1000).</li><li>Improvements in CSV import and export commands.</li><li>Improvements in installer.</li><li>Improvements in PID Control editor.</li><li>Fixed auto-declare of variables for X2/BoX2 targets.</li><li>Changed the default values of the MODBUS TCP Master settings.</li><li>Changed the default values of the Ethernet Adapter settings.</li><li>Changed the default values of EtherCAT Master settings.</li><li>Updated the GN-9386 and GL-9086 EtherCAT slaves.</li><li>Improvements in PIO available application objects.</li><li>Improved the performance to save project changing the project compress level from maximum compress to minimum compress.</li><li>Fixed the issue of the Gateway not starting.</li><li>Updated CANopen inverter devices.</li><li>Changed "Set all outputs to default" as standard on the "PLC Settings" tab for GL-9971 and GN-9372.</li><li>Changed the default configuration 'Enabled 1 (use bus cycle task if not used in any task)' on rack devices for GN-9372 and GL-9971.</li><li>Fixed the Special Variables program calls location in redundant applications.</li><li>Info: This version was built with CODESYS Development System 3.5.15.55.</li></ul> | | | |
| AS | <ul><li>Added new targets X2, BoX2 and PIO;</li><li>Added command "License Manager" in "Tools" menu;</li><li>Added command "License Repository" in "Tools" menu;</li><li>Added command "Bookmarks" in "View" menu;</li><li>Added commands "Find in Project" and "Replace in Project" to standard toolbar;</li><li>Added new default options for "SmartCoding" and "FBD, LD and IL editor";</li><li>Increased the RAM usage limit of the programming system for x64 architecture;</li><li>Increased maximum number of tasks of Nexto Xpress PLCs from 5 to 16;</li><li>Integrated I/O points are considered by Wizard when creating a project with I/O modules;</li><li>Enabled on Menu "Declarations" the submenu "Reorder List and Clear Gaps".</li><li>Included new default options for "SmartCoding" and "FBD, LD and IL editor".</li><li>Improved mappings limit routines;</li><li>Improved project treeview display;</li><li>Improved robustness of Login command;</li><li>Improvements in "Update Software License" Window;</li><li>Improvements in device treeview to show access modifiers;</li><li>Improvements in message texts about memory range field exceeding PLC memory limit;</li><li>Improvements in portuguese message texts;</li><li>Improvements in project update (modify device) for products with Integrated I/O;</li><li>Improvements in simulation mode;</li><li>Improvements in Wizard usability;</li><li>Improvements of color schemes in Text Editor options;</li><li>Improvements of the intelligent input assistance:<ul><li>Categories: Open with 'Ctrl + Space', switch pages with arrows left/right;</li><li>Filters: When typing elements from DUTs or FBs, naming filter</li></ul></li></ul> | 3.30 | 07/10/2020 |

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| | now is independent of character position and characteres are highlighted;<br>■ Improvements on CFC ToolBox and Editor:<br>  ■ 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;<br>  ■ Auto Dataflow Mode as new default setting;<br>  ■ Display Execution Order shows the execution order of the blocks as overlay;<br>  ■ Execution order is setting is adaptable in POU properties;<br>  ■ Explicit start point for feedback loops;<br>  ■ Drag and drop of variables;<br>■ Improvements on ST Editor:<br>  ■ When the cursor is on a symbol name, all occurrence locations of the symbol within the editor are highlighted;<br>  ■ Incremental search for strings with 'Ctrl + Shift + i';<br>  ■ Navigation through searched string with 'Alt + Page Up/Page Down';<br>  ■ Comment and uncomment multiple lines at once via context menu or 'Ctrl + o' and 'Ctrl + i' shortcuts;<br>  ■ Editing columns via keyboard operation 'Shift + Alt + Arrow Keys';<br>  ■ Auto declare via "Smart Tags" with suggestion popup. Keyboard shortcut is 'Ctrl + .';<br>■ Improvements on Watch:<br>  ■ Type cast for pointer inside Watch;<br>  ■ Monitoring of instance via interface, also in case of dynamically created objects;<br>  ■ Monitoring of the instance when reference is made via pointer;<br>■ Removed IL language from Wizard;<br>■ Removed Spanish option from installer;<br>■ Removed the confirmation dialog before execute the commands Delete and Cut;<br>■ Removed unsupported objects from X2 PLCs;<br>■ Signing of compiled libraries supported, and new icons. See more info in 'Library Manager > Icon legend';<br>■ Updates the fieldbus devices;<br>■ Fixed CANOpen CiA 405 Library Help navigation;<br>■ Fixed error on printing the project through the command "Document…" in "Project" menu;<br>■ Fixed Ethernet/IP Scanner's configuration issues regarding import of third-party EDS files;<br>■ Fixed improper online change request after close and reopen a project;<br>■ Fixed improper online change request due to Symbol Configuration automatic cleanup routine;<br>■ Fixed improper online change request on projects with not installed third-party devices;<br>■ Fixed improper variable uncheck after project update due to Symbol Configuration automatic cleanup routine;<br>■ Fixed installer issue that applied wrong file permissions during reinstalling;<br>■ Fixed issue that hides product library when the project is opened/created;<br>■ Fixed Wizard calculation of number of Thermocouple modules.<br><br>■ Info: This version was built with CODESYS Development System 3.5.15.40. | | |
| - | ■ Added support to IEC 60870-5-104 Server protocol on XP340.<br>■ Added support to Client Certificate on MQTT Protocol.<br>■ Added diagnostics to new USB devices (Wifi and 3G/4G modem) on Nexto Xpress.<br>■ Increased limit of OPC UA variables from 5000 to 20000. | 3.23 | 01/06/2020 |

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| | ▪ Increased limit of Export Online Variables from 30000 to 60000.<br>▪ Performance optimization of Export Online Variables routines.<br>▪ Fixed bit forcing issues for direct mapped variables.<br>▪ Fixed compilation error in Simulation Mode when using some CPU and rack combinations.<br>▪ Fixed compilation error caused by LibDatalogger dependencies.<br>▪ Info: This version was built with CODESYS Development System 3.5.12.02. | | |
| - | ▪ New limit of 16000 Ethernet/IP Device assemblies for the whole project.<br>▪ Added support to Update Device context menu for EtherCAT Slaves.<br>▪ Increased limit of assemblies per Ethernet/IP Device to 500.<br>▪ Fixed an issue where a password-protected project would failed to open.<br>▪ Fixed an issue where PIDControl object would not always save the generated code correctly.<br>▪ Fixed some issues with Export Online Variables.<br>▪ Improved Project Update for update of children devices.<br>▪ Improved support for multiple versions to be installed in parallel.<br>▪ Improvements in texts for Portuguese and English Cultures.<br>▪ Included MODBUS Symbol Client device version 1.0.0.25 for support of old versions.<br>▪ Info: This version was built with CODESYS Development System 3.5.12.02. | 3.22 | 30/03/2020 |
| - | ▪ Added a new type of license: BIG Program Professional.<br>▪ Increased limit of assemblies per Ethernet/IP Device from 50 to 60.<br>▪ Fixed a crash in Ethernet/IP interface when configuring "AXL E EIP DI 16 M12 6P" device.<br>▪ Improvements in Project Wizard.<br>▪ Improvements in texts for Portuguese and English Cultures.<br>▪ 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.<br>▪ Fixed exception in Redundant NX3030 after project synchronization process;<br>▪ Fixed issue causing "Online Change" when opening project with WebVisualization object.<br>▪ 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;<br>▪ 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;<br>▪ Added support for MQTT_CLIENT Function Block (provided by LibMQTT), which allows the controller to publish/subscribe MQTT messages;<br>▪ Added support for MSSQL_CLIENT Function Block (provided by LibSQLClient), which allows the controller to connect to a Microsoft SQL Server database;<br>▪ Added support to CAN termination parameter on the CPU device for XP300, XP315, XP325 and XP340;<br>▪ Added network configuration rules in XP300, XP315, XP325 and XP340 to prevent downloads with invalid configuration.<br>▪ Improvements in Project Update;<br>▪ Improvements in Project Wizard;<br>▪ Improvements in the project file creation;<br>▪ Improvements in NX3003 Integrated/IO Mapping;<br>▪ Improvements in texts for Portuguese Culture;<br>▪ Disabled Expansion Ethernet Interfaces and Redundancy network for | 3.19 | 20/12/2019 |

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| | Basic License;<br>▪ Fixed a problem was removing the Redundancy Configuration object while updating the project;<br>▪ Fixed a problem generating code without errors with NX4000 modules disconnected;<br>▪ Fixed problem creating unnecessary NX4000 modules;<br>▪ Fixed a crash in BCS Tools while updating some kind of redundant projects;<br>▪ Fixed a problem prevented project creation when BCS Tools International Settings was marked "Same as Microsoft Windows";<br>▪ Fixed issue that caused "Online Change" when opening project in specific situation;<br>▪ Fixed a crash in Ethernet/IP interface when configuring "AXL E EIP DI 16 M12 6P" device.<br>▪ Info: This version was built with CODESYS Development System 3.5.12.02. | | |
| - | ▪ Added support to XP340 PLC;<br>▪ Added option on the device IEC 60870-5-104 Server to receive a command in local time;<br>▪ Added option to the device IEC 60870-5-104 Server to send timestamps in local time;<br>▪ Added the command Refactoring in the menu Edit;<br>▪ Added new options of Baudrates for Nexto Xpress Serial (COM1): 2400 bps and 4800 bps;<br>▪ Added new elements for Visualization feature;<br>▪ Added a new object called Alarm Manager;<br>▪ Added a new object called Trend Recording Manager;<br>▪ Added a new object called Interface;<br>▪ Added CANopen Manager for XP300 and XP315;<br>▪ Added J1939 Manager and ECU for XP300, XP315, XP325 and XP340.<br>▪ Improvements in Help Files;<br>▪ Improvements in Import/Export CSV;<br>▪ Improvements in International Settings;<br>▪ Improvements in Project Update;<br>▪ Improvements in Project Wizard;<br>▪ Improvements in the project file creation;<br>▪ Improvements in MODBUS Server Mapping Screen;<br>▪ Improvements in Comparing Projects with PIDControl object;<br>▪ Improvements in texts for Portuguese Culture;<br>▪ Improvements in Fast Input configuration consistency;<br>▪ Improvements in PLCOpenXML Import command;<br>▪ Fixed SNTP period parameter in compiler warning to resolve "Implicit conversion from unsigned Type 'USINT' to signed Type 'SINT'" error;<br>▪ Fixed problems to configure MODBUS in COM interfaces after selecting Normal Mode;<br>▪ Fixed a problem to send the project archive to PLC;<br>▪ Fixed a problem to show Security Screen in the previous versions;<br>▪ Fixed NX9020 description;<br>▪ Fixed an error when saving Recipes using REAL variables;<br>▪ Fixed call location at MainPrg of redundant applications;<br>▪ Fixed login with online change in Redundant Project;<br>▪ Fixed copy/paste for CANopen Remote Device;<br>▪ Changed the MainTask Interval to be triggered as a warning, no longer as an error for Xpress CPUs;<br>▪ Changed field name of the serial advanced parameter to "RS-485 Termination";<br>▪ Changed download archive size from 16 MB to 26 MB for XP300, XP315 and XP325;<br>▪ Added support in MODBUS Symbol drivers and IEC 60870-5-104 Server driver to variables from Function Blocks with EXTENDS directive; | 3.18 | 29/10/2019 |

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| | ▪ Added consistency when try to using a NX5100 with NX9020;<br>▪ Disabled clock settings in simulation mode.<br>▪ 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).<br>▪ Improvements in Project Update;<br>▪ Improvements in the project file creation;<br>▪ Improvements in Help Files;<br>▪ Fixes in copy and paste commands in I/O Mapping;<br>▪ Fixes in Special Variables GVL.<br>▪ 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;<br>▪ Enabled Protocol EtherNet/IP Scanner and Adapter for all CPUs;<br>▪ Included Datalogger functionality (added LibDataLogger library);<br>▪ Added a new system GVL called Special Variables including Pulsating Bits, Clock variables and Constants;<br>▪ Added new "Open Circuit Value" parameter for XP3xx Analog Inputs;<br>▪ Added information about modules installation in Help files;<br>▪ Added a tooltip that shows up in the configuration screen when passing the mouse cursor above the modules;<br>▪ Improvements in NX5101 Modbus Mappings to align data according to the physical order;<br>▪ Improvements in Analog Output Configuration Page XP315 and XP325;<br>▪ Fixed error message in New Project Screen when trying to add I/O modules;<br>▪ Improvements in the English culture help files;<br>▪ Fixed I/O Simulation tool was not working for Integrated I/O in NX3003, XP300, XP315 and XP325;<br>▪ Limited the use of reserved words ("DigitalInputs", "DigitalOutputs", "FastInputs" and "FastOutputs") in code generation for CPU NX3003, XP300, XP315 and XP325;<br>▪ 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.<br>▪ Info: This version was built with CODESYS Development System 3.5.12.02. | 3.16 | 14/08/2019 |
| - | ▪ Updated the compiler to fix a potential occurrence of exception when using Ethernet IP protocol.<br>▪ 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).<br>▪ 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.<br>▪ Added "Login" Button to Easy Connection.<br>▪ Including a confirmation message before removing objects from the project.<br>▪ Added Right Click to open the product information web page in Configuration (Bus).<br>▪ Use Internet Explorer 11 to show the start web page (requires Internet Explorer 11 to be installed).<br>▪ Improvement to copy and paste on Modbus Symbol Server.<br>▪ Improved algorithm of the LibNextoPID with anti-reset windup and the automatic error recovery (ex: Gp < 0).<br>▪ Fixed the translation of the "Paste Contacts" submenu in the "FBD / LD / IL" menu. | 3.14 | 26/06/2019 |

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| | ▪ Fixed to always create a project with newest version of PLC.<br>▪ Fixed possible error "Object reference not set to an instance of an object" after request export to CSV.<br>▪ Fixed the culture selection after open the "Clock Settings" dialog.<br>▪ Fixed the "Export Online Variables" command.<br>▪ Fixed error introduced on version 3.10 which may cause exception after a switchover of redundant PLC.<br>▪ Fixed error introduced on version 3.11 which results on exception when reading/writing to MODBUS mappings with variable size longer than 16 bits.<br>▪ Changed limits of Recipe Manager, keeping only the limit of 5.000 variables per Recipe Definition.<br>▪ Improved Help.<br>▪ Info: This version was built with CODESYS Development System 3.5.12.0. | | |
| - | ▪ 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.<br>▪ 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.<br>▪ Added Fast I/O support (counters, interrupts and PWM/PTO) for XP300, XP315 and XP325.<br>▪ Added Interruption option and Counter Interrupts to NX3003 in Integrated I/O window.<br>▪ Added support for Import and Export to NX3003, XP300, XP315 and XP325.<br>▪ Updated help with CANopen.<br>▪ Fixed the checkbox "Enable retain and persistent variables in Function Blocks", which was not being effective when checked specifically for Nexto Xpress controllers.<br>▪ The declarations editors (GVL and POUS) now opens in tabular mode.<br>▪ Added LibMachineOEM.<br>▪ Automatically open the project update window for outdated projects.<br>▪ 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.<br>▪ Info: This version was built with CODESYS Development System 3.5.12.0. | 3.12 | 11/03/2019 |
| AQ | ▪ Added I/O Simulator page<br>▪ Added new hot swap mode "Hot Swap Disabled Without Startup Consistency" for following devices: NX3003, NX3004, NX3005, NX3010, NX3020, NX3030 and NX5100<br>▪ Updated help<br>▪ Added encryption to OPC UA<br>▪ Opens the declarations editors (GVL and POUS) in tabular mode<br>▪ Added a message box to warn about changing values when user leaves a page<br>▪ Improved the error message when use a Basic license<br>▪ Added support to Nexto Xpress PLCs XP300, XP315 and XP325<br>▪ Added support to NX3003 PLC<br>▪ Added support to NX5101 MODBUS TCP Head<br>▪ Added support to OPC UA configuration<br>▪ Added EtherNet/IP Adapter<br>▪ Added option in the project wizard to create the directory to project's files<br>▪ Added "Find in Project" command in menu "Edit"<br>▪ Added "Replace in Project" command in menu "Edit"<br>▪ Added "Browse Call Tree" command in menu "Edit > Browse" | 3.04<br>3.05<br>3.10<br>3.11 | 28/12/2018 |

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| | ▪ Added "BCS Tools Perspective" command in menu "View > Choose Perspective"<br>▪ Added "HMI Perspective" command in menu "View > Choose Perspective"<br>▪ Added "Visualization" command in menu "View > HMI Views"<br>▪ Added "HMI Features" command in menu "View > HMI Views"<br>▪ Added "Programmings" command in menu "View > HMI Views"<br>▪ Added "Datasources" command in menu "View > HMI Views"<br>▪ Added "Commit Accepted Changes" command in menu "Project"<br>▪ Added "Insert Execute Box" command in menu "FBD/LD/IL"<br>▪ Added "Add to Recipe Definition" command in context menu of the POUs and GVLs<br>▪ Added "Browse Call Tree" command in context menu of the POUs<br>▪ Added "Export Library" command in context menu of the Library Manager<br>▪ Included Encryption tab in the Application object<br>▪ The parameter "Minimum Error Before Clock Update" accepts a new range from 1 up to 65519 ms<br>▪ Improvements in the performance of Import Safety Projects command<br>▪ Improvements in the Import Safety Projects command<br>▪ Info: This version was built with CODESYS Development System 3.5.12.0. | | |
| AP | ▪ Added Help files for EtherNet/IP in Portuguese;<br>▪ 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.<br>▪ Added Import Safety Project… and Delete Safety Objects Imported… commands in Project menu;<br>▪ Added message if no device was found when Easy Connection is executed;<br>▪ Added on the About dialog the version in wich the project was created;<br>▪ Added support to Alarm Manager and Alarm Configuration;<br>▪ Added support to NX9020 rack.<br>▪ Increased the limit of the EtherCAT slaves to 192.<br>▪ Info: This version was built with CODESYS Development System 3.5.7.60. | 3.03 | 15/01/2018 |
| AO | ▪ Added EtherNet/IP Scanner;<br>▪ Added the IEC 60870-5-104 Server device;<br>▪ Added Disable Breakpoint and Enable Breakpoint commands in Debug menu;<br>▪ Added Easy Connection command;<br>▪ Added Edit IO mappings command in context menu of Device object;<br>▪ Added new commands (Reorder list and clean gaps, Save current values to recipe and Restore values from recipe) in Persistent Variables object;<br>▪ Added NJ1005, NJ6001, NJ6011, NJ6101 and NX5100 modules support;<br>▪ Added options to Operating Mode command in Online menu;<br>▪ Added Toggle Breakpoint command to POU when CPU is connected;<br>▪ Added Placeholders command in context menu of Library Manager object;<br>▪ Added Print Preview command in File menu;<br>▪ Added quality variables support for IO modules;<br>▪ Added quality variables support for MODBUS Symbol Client driver;<br>▪ Added Wink command in Source upload… and Source download… | 3.02 | 09/06/2017 |

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;
- 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

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| | StartPrg;<br>▪ New projects are created with four folders called SystemGVLs, SytemPOUs, UserGVLs and UserPOUs;<br>▪ A new POU called StartPrg is created for every new project;<br>▪ A new POU called UserPrg is created for non-redundant projects;<br>▪ Three new GVLs called IOQualities, Module_Diagnostics and System_Diagnostics are created;<br>▪ The Diagnostics GVL is not created for new projects;<br>▪ Removed a wrong icon from Add Gateway Window.<br>▪ Info: This version was built with CODESYS Development System 3.5.7.60. | | |
| AN | ▪ Enabled Redundant PROFIBUS network for NX3020 in Wizard page;<br>▪ Improvements in Redundant State Machine using only Ethernet I/Os;<br>▪ Improvements to decrease the size of BCS Tools projects.<br>▪ Info: This version was built with CODESYS Development System 3.5.3.141. | 2.08 | 26/12/2016 |
| AM | ▪ Added NX3005 CPU support;<br>▪ Added the Visualization feature to the tool. This feature enable users to create screens loaded and stored in the CPUs memory with the logic application. Using this feature is possible access created screens trough the web browsers. This feature is enable only for NX3005 CPU:<br>▪ Added Visualization Manager object used to set general configuration of Visualization feature;<br>▪ Added WebVisualization object used to set the specific configuration related with web access in the created screens;<br>▪ Added Visualization objects that is used to create screens to access application information;<br>▪ Added Image Pool object to the application. This object is used to create a list of images that can be used in the Visualization;<br>▪ Added Network Variable List (NVL) feature to tool. The feature enable exchanging variables among controllers trough the CPU network interfaces.<br>▪ Added a new command called Clock Settings that is an easy way to get and set date and time in the CPUs;<br>▪ Added the option of Dynamic IP Address to the CPU Ethernet interface (DHCP Protocol);<br>▪ Added the option Edit Page Size in the CFC Menu;<br>▪ Fixed a problem using Export to CSV feature and the SOE enabled;<br>▪ Fixed a problem using Export Online Variables command;<br>▪ Fixed a problem related with Symbols in Treeview with Redundant PROIFBUS Networks;<br>▪ Improvements performance in Import from CSV command.<br>▪ Fixed an eventual issue with redundant system startup when using exclusively PROFIBUS slaves from Nexto Series;<br>▪ Changed verification rule of hot-swap mode parameter for Nexto Jet Solution to allow the system to startup even with absent modules.<br>▪ Info: This version was built with CODESYS Development System 3.5.3.141. | 2.07 | 31/10/2016 |
| AL | ▪ Changed the product label to comply with the new revision of CE directive.<br>▪ 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;<br>▪ Included a new option that allows to use Retain and Persistent variables on Function Blocks;<br>▪ Changed the verification rule of NX3004 maximum current to allow the operation with up to 20W in some specific conditions; | 2.05 | 25/01/2016 |

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| | <ul><li>Added support for NX9010 rack with NX5110;</li><li>Enhancements on Export Online Variables command;</li><li>Fixed import/export for projects with PO7078 module;</li><li>Compilation performance optimization in projects with MODBUS Client and MODBUS Master;</li><li>Performance optimization on Open Project, Generate Code and Login commands.</li><li>Info: This version was built with CODESYS Development System 3.5.3.141.</li></ul> | | |
| AJ | <ul><li>Added support for Nexto Jet solution, with the inclusion of the following modules: NJ1001, NJ2001, NJ6000, NJ6010, NJ6020, NJ6100.</li><li>Added a new PROFIBUS slave device called NX5110_NJ which allows to use Nexto Jet solution modules with the Nexto Series PROFIBUS DP head.</li><li>Added Export and Import Online Variables command in the Online Menu.</li><li>Added support for flexibility of Persistent and Retain memory area sizes.</li><li>Implemented support to use old Nexto modules with Machine Profile.</li><li>Enhancements on PIDControl when using it on redundant projects.</li><li>Changed name and description of parameter Allocate Diagnostic Area According to the Device Description in NX5001 configuration.</li><li>Consistency of EtherCAT parameters Sync0 and Sync1.</li><li>Consistency of EtherCAT slave parameter Cycle Time.</li><li>Improvements in message texts about synchronization options for EtherCAT configuration.</li><li>Improvements in help files about EtherCAT.</li><li>Removed the diagnostic HotStartCounter from the diagnostic structure of NX3004 CPU.</li><li>Fixed errors using NX9010 in simulation mode.</li><li>Changed the text of hot swap options in CPU General Configuration tab.</li><li>Improvements in Portuguese Help files.</li><li>Improvements in message texts about Modbus direct mapping limits.</li><li>Info: This version was built with CODESYS Development System 3.5.3.141.</li></ul> | 2.03 | 15/10/2015 |
| AI | <ul><li>New Features:</li><li>Added Scan Devices feature for Nexto Series PROFIBUS Master NX5001;</li><li>Added NX9010 Rack support.</li><li>Enhancements:</li><li>Improvements in EtherCAT Master Device;</li><li>Improvements in OPC Configuration Screen including new verifications for ARRAY type and a new option to use CPU embedded gateway;</li><li>Improvements in OPC Server service;</li><li>Improvements in Symbol Configuration object to remove automatically deleted variables;</li><li>Improvements in the treatment of GSD files from third part suppliers into Device Repository;</li><li>Improvements in Force Command for bit type;</li><li>Improvements in Edit commands (Add/Copy/Paste/Cut/Delete) for PROFIBUS Slave Devices;</li><li>Improvement in Wizard Page to treat current consumption before creating a project;</li><li>Improvements in Help files.</li><li>Info: This version was built with CODESYS Development System</li></ul> | 2.02 | 04/08/2015 |

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| | | 3.5.3.141. | | |
| AH | | <ul><li>New Features:</li><li>EtherCAT Master:</li><li>Added EtherCAT Master Device to be inserted as a communication driver;</li><li>Enabled the option Scan Devices to scan automatically the devices connected below the EtherCAT Master.</li><li>Added a new Project Profile called Machine Profile execute fast applications.</li><li>Added Nexto Series PROFIBUS DP slaves NX5110 and NX5210:</li><li>Added Nexto Series PROFIBUS slaves into the Configuration and Consumption;</li><li>Added Nexto Series PROFIBUS slaves into the Bill of Materials;</li><li>Added limits verifications for Nexto Series PROFIBUS Slaves.</li><li>Added NX3004 CPU support.</li><li>Added NX9000 Rack support.</li><li>Added SNTP support in the NX3010 CPU.</li><li>Added a library to read and write PROFIBUS DPV1 commands using NX5001 interface.</li><li>Added a new configuration in the CPU screen called Enable I/O Update per Task used to Update I/O in task different than MainTask.</li><li>Added Export and Import from PLCOpen XML in the Project Menu.</li><li>Added the option called Redundancy without panel to use a redundant system without the Control Panel.</li><li>Automatically vital failure treatment for Ethernet interfaces and MODBUS Client devices in Half Cluster redundancy Projects.</li><li>Enhancements:</li><li>Improvements in Portuguese Culture Screens;</li><li>Improvements in Portuguese Help files.</li><li>Info: This version was built with CODESYS Development System 3.5.3.141.</li></ul> | 2.01 | 14/05/2015 |
| AG | | <ul><li>New Features:</li><li>OPC Server;</li><li>Added OPC Server into the installer;</li><li>Added OPC Configuration menu to configure devices to connect with OPC Server;</li><li>Added Symbol Configuration object to define variables available for OPC Server access;</li><li>Application CRC;</li><li>Added CPU Information menu to Access Project and CPU CRC;</li><li>Added a new Diagnostics for Nexto CPUs to access CRC.</li><li>Export to and Import from CSV Files:</li><li>Added support to Export and Import Nexto CPUs parameters;</li><li>Added support to Export and Import Nexto Series Modules configuration;</li><li>Added support to Export and Import Ponto Series PROFIBUS Slaves;</li><li>Added support to Export and Import GVLs into CSV files;</li><li>Added support to Export and Import POUs in ST language;</li><li>Import through selection of multiple CSV files.</li><li>Recipe Manager:</li><li>Added Recipe Manager object;</li><li>Added Recipe Definition object;</li><li>Added LibRecipeHandler to manage Recipes into the application;</li><li>Added a new programming language called CFC Page-Oriented language and its editor;</li><li>Added Sync and Freeze commands support for NX5001.</li><li>Added two new hotswap modes for Nexto Series CPUs:</li><li>Disabled;</li></ul> | 2.00 | 30/09/2014 |

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| AE | <ul><li>Enabled, with startup consistency.</li><li>Windows 8.1 support.</li><li>Enhancements:</li><li>Ponto Series PROFIBUS slaves;</li><li>Added Ponto Series PROFIBUS slaves into the Configuration and Consumption;</li><li>Added a new screen to configure Ponto Series bases;</li><li>Added a new screen to configure Ponto Series expansion;</li><li>Added Ponto Series PROFIBUS slaves into the Bill of Materials;</li><li>Added limits verifications for Ponto Series PROFIBUS Slaves.</li><li>Project Wizard:</li><li>Added option to select bus expansion with redundancy;</li><li>Added option to select redundancy project with OPC communication;</li><li>Added a page to create IO modules during the wizard configuration;</li><li>Added Project Profile descriptions;</li><li>Help files improvements and optimizations;</li><li>Optimization in the Nexto Series graphical configuration;</li><li>Added PID_INT and PID_REAL Function Blocks into the LibNextoPID;</li><li>Improvements in PIDControl Editor to edit main variables and retain them values;</li><li>Blocked Project Update from new projects to older versions;</li><li>Changed contact support link URL;</li><li>Improved the consistencies for 24 characters in device identifiers;</li><li>Added a verification to prevent the use of "AT" in redundant objects;</li><li>Changed the behavior to create and download project archive with online change;</li><li>Changed the behavior to create boot application implicit on download and online changes;</li><li>Changed the option Source Download to "Prompt at program Download and online Changes" by default;</li><li>Changed the Option additional files to send "Download information files" by default;</li><li>Improvements in the usability of FBD/IL/LD editor;</li><li>Improvements in the usability of CFC editor.</li><li>Info: This version was built with CODESYS Development System 3.5.3.120.</li></ul> | | |
| AF | <ul><li>New Features:</li><li>Implemented Edit Object (offline) command;</li><li>Disabled the option "Exclude from build" for CPUs;</li><li>Added a new analog I/O module: NX6020 – 8 AI RTD Module.</li><li>Enhancements:</li><li>Standardization in comments of modules parameters and in texts used in Modbus mappings;</li><li>Improvements on saving memory card configuration;</li><li>Improvements in Import/Export commands;</li><li>Implemented, into the update command, the feature to update redundant projects from any version without stops the application;</li><li>Removed the option to read Modbus data using broadcast slave address because it was an invalid command;</li><li>Updated libraries to improve the accuracy of local bus watchdog detection;</li><li>Fixed problems in Online Change using Modbus drivers;</li><li>Fixed a situation where MODBUS driver could incorrectly indicate NX5000 failure;</li><li>All diagnostics structure library are now visible.</li><li>Info: This version was built with CODESYS Development System 3.4.4.25.</li></ul> | 1.41 | 18/07/2014 |
| AE | <ul><li>New Features:</li></ul> | 1.40 | 13/01/2014 |

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| | <ul><li>Changed the installer based in Microsoft InstallShield to installer based in Inno Setup. This change reduces the installation time;</li><li>Added MODBUS devices with mappings of symbolic variables;</li><li>Added Import/Export command to CSV files. This command imports or exports the project configurations;</li><li>Added Import/Export support to the MODBUS Symbolic drivers;</li><li>Added a new analog I/O module: NX6010 – 8 Ch. Thermocouple Input Module;</li><li>Added LibLogs with new function block to manage CSV files into the memory card.</li><li>Enhancements:</li><li>Improvement to receive MODBUS serial frames before 3.5 characters silence.</li><li>Info: This version was built with CODESYS Development System 3.4.4.25.</li></ul> | | |
| AD | <ul><li>Changed the MODBUS mappings limit from 128 to 512.</li><li>Changed the limit of characters of TAGs from 24 to 255.</li><li>Changed the limit of characters of Descriptions from 48 to 255.</li><li>Changed the limit of characters of Devices Names from 24 to 255.</li><li>Updated compiler version to 3.4.4.27.</li><li>Updated Libraries.</li><li>Info: This version was built with CODESYS Development System 3.4.4.25.</li></ul> | 1.33<br>1.34<br>1.35 | 28/10/2013 |
| AC | <ul><li>Updated Libraries.</li></ul> | 1.32 | 01/07/2013 |
| AB | <ul><li>Enhancements on performance.</li><li>Corrections in memory overlap verification for Diagnostics Variables.</li><li>Enhancements on Project Update.</li><li>Enhancements on Simulation Mode.</li><li>Added External Events configuration.</li><li>Correction in memory allocation of retain variables for online changes.</li></ul> | 1.31 | 12/06/2013 |
| AA | <ul><li>Initial revision.</li></ul> | 1.30 | 12/04/2013 |