

ILC 1X1 – CHANGE NOTES

Change notes for ILC 1X1 Inline controllers

Application note
105625_en_07

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1 General notes

This document contains all changes made between firmware version 4.30 and the current firmware version.

Current firmware version: 4.60

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Make sure you always use the latest documentation.
It can be downloaded at phoenixcontact.net/products.



This application note is valid for all products listed in the ordering data.

2 Ordering data

Description	Type	Order No.	Pcs./Pkt.
Inline controller, complete with accessories (plugs and marking fields)	ILC 131 ETH	2700973	1
Inline controller, complete with accessories (plugs and marking fields)	ILC 151 ETH	2700974	1
Inline controller, complete with accessories (plugs and marking fields)	ILC 151 GSM/GPRS	2700977	1
Inline controller, complete with accessories (plugs and marking fields)	ILC 171 ETH 2TX	2700975	1
Inline controller, complete with accessories (plugs and marking fields)	ILC 191 ETH 2TX	2700976	1
Inline controller, complete with accessories (plugs and marking fields)	ILC 131 ETH/XC	2701034	1
Inline controller, complete with accessories (plugs and marking fields)	ILC 151 ETH/XC	2701141	1

3 Changes in firmware version 4.60¹

Firmware version 4.60 is only intended for controllers from hardware version 02.

From hardware version 02, controllers contain a different flash memory. Firmware version 4.60 supports the altered flash memory. All other functions are identical to firmware version 4.42. Therefore, an update for controllers with hardware versions ≤ 02 to firmware version 4.60 is not appropriate.

4 Changes in firmware version 4.42



Unless otherwise indicated, you will find more information on the functions listed below in the user manual of each controller.

4.1 New functions

- Modbus/TCP server support



This function is available in the AUTOMATIONWORX Software Suite 1.82 AddOn V1 or later versions.

Type ILC 1X1 controllers can now also be configured as Modbus/TCP servers.

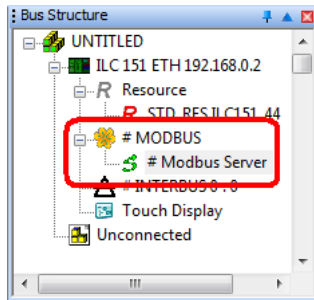


Figure 1 Modbus/TCP servers in the PC Worx Bus Structure

Each controller supports a different number of communication connections to the Modbus/TCP clients:

Controller	Max. number of communication connections to Modbus/TCP clients
ILC 131 ETH(/XC)	4
ILC 151 ETH(/XC)	6
ILC 171 ETH 2TX	8
ILC 191 ETH 2TX	8

For additional information, please refer to the AH EN MODBUS/TCP application note. The application note can be downloaded via the product at phoenixcontact.net/products.

- SD card functionality



This function is available in the AUTOMATIONWORX Software Suite 1.82 AddOn V1 or later versions.



WARNING: Explosion hazard

In potentially explosive areas, the SD card must not be used as additional memory. Use the SD card as main memory only. Don't insert or remove the SD card during operation.

The SD card's functionality has been extended. The SD card can now be used either as the main memory or as additional memory.

As additional memory, the SD card can be used for storing log files.

You can select the SD card functions you need in the "Device Details" window in PC Worx.

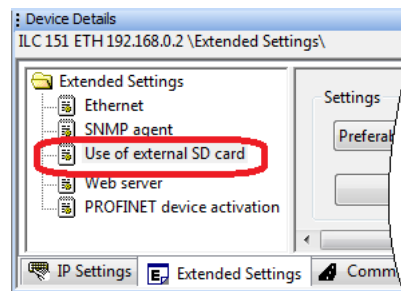


Figure 2 Selecting SD card functions

¹ Does not apply to controllers of type ILC 151 GSM/GPRS

- SMTPS support for secure e-mailing
You can use the SMTPS method (e-mailing via SMTP with SSL/TLS) for secure e-mailing.
In order to use the SMTPS method, you need to import the IT_Library_V1_34 library. It is available for download via the product at phoenixcontact.net/products.
The SMTPS method was tested using the following providers:
 - Gmail (Port 465 ¹, Port 587)
 - GMX (Port 465, Port 587)
 - Web.de (Port 587)
 - Yahoo Mail (Port 465, Port 587)
 - T-Online (Port 465, Port 587)
 - Microsoft Hotmail (Port 587)
 - freenet AG (Port 587)
 - Creating/deleting folders on the FTP server
Folders can be manually created or deleted on the FTP server.
 - Opening/closing of ports
By means of the CPU_Set_Value_Request CPU service, the ports 1962 (port for the communication with PC Worx), 21 (FTP port), 7 (port for echo server), and 41100 (port for OPC and Debug mode in PC Worx) can be opened or closed.
- 4.2 Error corrections**
- REAL_TO_STRING function block
When the REAL_TO_STRING function block was used, a rounding error occurred.
This error has been rectified.
 - SNMP Component ID used twice
Type ILC 1X1 controllers used SNMP Component IDs that were also being used by other products.
This error has been rectified.
 - Dynamic specification of the PCP communication reference not possible
Dynamic configuration was not possible when using the PCP_CONNECT function block. It was not possible to change the configuration of the function block using different communication references, so as to, e.g., configure multiple PCP devices by means of one PCP_CONNECT function block.
This error has been rectified.
 - Web server access
Simultaneous access to a WebVisit project on the web server by four or more web clients caused an error of the controller in firmware versions 4.20 and 4.30 in some cases. This was, in some cases, worsened by ARP broadcast radiation.
This behavior has been corrected.
 - Representation of complex visualizations
Graphical objects in complex visualizations were not represented correctly, and variable values were not loaded. The “Failed to update PPOs” error message appeared.
This error has been rectified.
 - Possible data corruption in Modbus/TCP client communication
In PC Worx projects created with AUTOMATIONWORX Software Suite 1.82 or earlier versions, data corruption may occur in Modbus/TCP client communication.
This fault has been rectified in the AUTOMATIONWORX Software Suite 1.82 AddOn V1.
 - Deadlock caused by poor GPRS communication²
Sometimes a deadlock was caused when the reception strength was insufficient or the bandwidth was exceeded during data transmission via GPRS. Communication with the ILC 151 GSM/GPRS controller via GPRS or the Ethernet interface was impossible.
This error has been rectified.

¹ Use the option “Allow less secure apps”.

² Type ILC 151 GSM/GPRS controllers only