

## Controller - ILC 131 ETH - 2700973

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The Inline controller offers the option of communicating via PROFINET and Modbus/TCP. Programming is carried out using PC Worx Express or PC Worx (IEC 61131-3).

### Product Description


The ILC 131 ETH modular small-scale controller for the Inline I/O system is at the heart of Easy Automation. The ILC 1X1 series is characterized by its support for the Modbus/TCP and PROFINET Ethernet-based protocols. A new feature is the support for an optional SD card.

### Your advantages

- ✓ PROFINET-Device
- ✓ Modbus/TCP-Client
- ✓ Numerous protocols supported such as: http, https, FTP, SNMP, SMTP, SQL, MySQL, DCP, etc.
- ✓ Free engineering with PC Worx Express (IEC 61131-3)
- ✓ Program memory and mass storage (192 kB/192 kB)
- ✓ Modbus/TCP server
- ✓ HTML 5
- ✓ Integrated web server for visualization with WebVisit/atvise®
- ✓ Complete INTERBUS master (2048 I/O points)
- ✓ SD card up to 2 GB as optional plug-in parameterization memory



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 665490
GTIN	4046356665490
Weight per Piece (excluding packing)	350.000 g
Custom tariff number	85371091
Country of origin	Germany

### Technical data

#### Note

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## Technical data

### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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### Dimensions

Width	80 mm
Height	119.8 mm
Depth	71.5 mm

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (according to DIN EN 61131-2)
Permissible humidity (storage/transport)	10 % ... 95 % (according to DIN EN 61131-2)
Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Shock	25g, Criterion 1, according to IEC 60068-2-27
Vibration (operation)	5g

### Control system

Engineering tool	PC WORX
	PC WORX EXPRESS
Programming languages supported	Programming in acc. with IEC 61131-3
Diagnostics tool	DIAG+
Configuration tool	Config+ Version 1.01 or later

### IEC 61131 runtime system

Engineering tool	PC WORX
	PC WORX EXPRESS
Program memory	192 kByte
Mass storage	192 kByte
Retentive mass storage	8 kByte (NVRAM)
Number of control tasks	8
Realtime clock	Yes

### Fieldbus function

Amount of process data	max. 2048 Bit (INTERBUS)
	max. 8192 Bit (internal Modbus /TCP client)
Number of supported devices	max. 63
Number of local bus devices that can be connected	max. 63 (observe current consumption)
Number of devices with parameter channel	max. 8

### Data interfaces

Interface	Ethernet 10Base-T/100Base-TX
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## Technical data

### Data interfaces

Number	1
Connection method	RJ45 socket
Transmission speed	10/100 Mbps
Interface	INTERBUS local bus (master)
Number	1
Connection method	Inline data jumper
Transmission speed	500 kBaud / 2 MBaud (can be switched)
Interface	Parameterization/operation/diagnostics
Number	1
Connection method	6-pos. MINI DIN socket (PS/2)
Transmission speed	max. 115.2 kbps

### PROFINET

Device function	PROFINET device
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### Direct I/Os

Input name	Digital inputs
Number of inputs	8
Connection method	Inline potential distributor
Connection technology	2, 3, 4-wire
Description of the input	EN 61131-2 type 1 NPN/PNP
Output name	Digital outputs
Number of outputs	4
Connection method	Spring-cage connection
Connection technology	2, 3, 4-wire
Maximum output current per channel	500 mA

### Power supply

Typical current consumption	210 mA
Max. current consumption	870 mA (370 mA communications power + 500 mA analog voltage supply)
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC
Residual ripple	± 5 %
Power dissipation	max. 5 W

### Mechanical design

Weight	285 g
Diagnostics display	No
Controller redundancy	No
Safety function	No

### General data

Processor	Altera Nios II 64 MHz
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## Technical data

### Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Interference emission	Noise emission test as per EN 61000-6-4 EN 55011 Class A
Immunity to surge	Noise immunity test in accordance with EN 61000-6-2 Transient overvoltage (surge) EN 61000-4-5/IEC 61000-4-5 Criterion B, supply lines DC: 0.5 kV/0.5 kV (symmetrical/asymmetrical), fieldbus cable shield 1 kV
Immunity to burst	Noise immunity test in accordance with EN 61000-6-2 Fast transients (burst) EN 61000-4-4/IEC 61000-4-4 Criterion A, all interfaces 1 kV Criterion B, all interfaces 2 kV
Immunity to EF	Noise immunity test in accordance with EN 61000-6-2 Electromagnetic fields EN 61000-4-3/IEC 61000-4-3 Criterion A, Field intensity: 10 V/m
Immunity to ESD	Noise immunity test in accordance with EN 61000-6-2 Electrostatic discharge (ESD) EN 61000-4-2/IEC 61000-4-2 Criterion B, 6 kV contact discharge, 8 kV air discharge
Vibration (storage/transport)	5g
Shock	25g, Criterion 1, according to IEC 60068-2-27
Vibration (operation)	5g

### Environmental Product Compliance

REACH SVHC	1,2-dimethoxyethane,ethylene glycol dimethyl ether (EGDME) 110-71-4
	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Classifications

### eCl@ss

eCl@ss 4.0	27250203
eCl@ss 4.1	27240601
eCl@ss 5.0	27242215
eCl@ss 5.1	27242700
eCl@ss 6.0	27242200
eCl@ss 7.0	27242207
eCl@ss 8.0	27242207
eCl@ss 9.0	27242207

### ETIM

ETIM 3.0	EC000236
ETIM 4.0	EC000236
ETIM 5.0	EC000236
ETIM 6.0	EC000236

### UNSPSC

UNSPSC 6.01	43172015
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## Classifications

### UNSPSC

UNSPSC 7.0901	43201404
UNSPSC 11	43172018
UNSPSC 12.01	43201404
UNSPSC 13.2	39122114

## Approvals

### Approvals





#### Approvals

DNV GL / BV / LR / ABS / BSH / RINA / UL Listed / cUL Listed / EAC / EAC / cULus Listed

#### Ex Approvals

ATEX / UL Listed / cUL Listed / cULus Listed

### Approval details

DNV GL		<a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a>	A-13984
BV		<a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a>	20989/B2_BV
LR		<a href="http://www.lr.org/en">http://www.lr.org/en</a>	08/20033
ABS		<a href="http://www.eagle.org/eagleExternalPortalWEB/">http://www.eagle.org/eagleExternalPortalWEB/</a>	17-HG1621871-PDA
BSH		<a href="http://www.bsh.de/de/index.jsp">http://www.bsh.de/de/index.jsp</a>	858
RINA		<a href="http://www.rina.org/en">http://www.rina.org/en</a>	ELE183315XG
UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324

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## Approvals

cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
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EAC		EAC-Zulassung
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EAC		RU *- DE.A*30.B.00238
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cULus Listed		
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## Accessories

### Accessories

#### Drivers and interfaces

#### Software - AX OPC SERVER - 2985945



AX OPC SERVER, communication interface for OPC-capable visualization with PC WORX-based controls.

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#### Software - PC WORX UA SERVER-PLC 10 - 2402684



OPC UA server for communication with a maximum of 10 modular small-scale controllers (AXC 1xxx or ILC 1x1)

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#### Software - PC WORX UA SERVER-PLC 40 - 2402685



OPC UA server for communication with a maximum of 25 controllers

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## Accessories

Software - PC WORX UA SERVER-PLC 80 - 2402686



OPC UA server for communication with a maximum of 200 controllers

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## Parameterization memory

Memory - SD FLASH 512MB - 2988146



Program and configuration memory, plug-in, 512 Mbyte.

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Program / configuration memory - SD FLASH 512MB APPLIC A - 2701799



Program and configuration memory, plug-in, 512 MB with license key for functional block libraries, e.g., for: SNMP, SQL, wireless, motion functions, etc.

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Program / configuration memory - SD FLASH 2GB - 2988162



Program and configuration memory

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Program / configuration memory - SD FLASH 2GB APPLIC A - 2701190



Program and configuration memory, plug-in, 2 Gbytes with license key for function block libraries, e.g., for: SNMP, SQL, wireless, motion functions, etc.

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## Programming cable

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### Accessories

Connecting cable - COM CAB MINI DIN - 2400127



Connecting cable, for connecting the controller to a PC (RS-232) for PC WORX with flow control, 3 m in length

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Software - IPASSIGN - 2701094



IPAssign is an easy to use tool for setting the IP address of devices which rely on BOOTP. No installation or administrative rights are required to use IPAssign.

This product is free and only available from the "Downloads" tab.

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