

# Controller - ILC 151 ETH - 2700974

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The controller enables integration of I/O signals from MODBUS periphery devices into the control program via MODBUS/TCP. Programming takes place with PC Worx Express or PC Worx (IEC 61131-3).

## Product description

With the ILC 151 ETH, the highly modular Inline controller range from Phoenix Contact has been extended to include a powerful compact controller. This controller can be used to extend the possible field of application of Inline controllers right down to smaller applications. With direct integration into the Inline automation system, the compact controller is highly modular and can be adapted to the relevant application requirements. Its integrated Ethernet interface enables parameterization and programming using PC Worx automation software according to IEC 61131, and it can also exchange data with OPC servers simultaneously and communicate with TCP/IP-compatible devices.

The Inline controller range covers a wide performance range. From entry-level versions to high-end controllers, users can find the right controller for their application. Within the product portfolio, users can choose between controllers with different computing capacities, with or without PROFINET controllers, and with or without GL approval.

## Product Features

- Numerous protocols supported such as: HTTP, FTP, SNTP, SNMP, SMTP, SQL, MySQL, etc.
- Free engineering with PC Worx Express (IEC 61131-3)
- Complete fieldbus master (4096 I/O points)
- Integrated web server for visualization with WebVisit
- FTP server
- Flash file system



## Key commercial data

Packing unit	1 PCE
GTIN	
Weight per Piece (excluding packing)	350.0 GRM
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 mean sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above mean sea level)
Shock	25g, Criterion 1, according to IEC 60068-2-27
Vibration (operation)	5 g

### Control system

Programming tool	PC Worx/PC Worx Express
Diagnostics tool	DIAG+
Configuration tool	Config+ Version 1.01 or later

### Mechanical design

Weight	285 g
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### Data interfaces

Interface	INTERBUS local bus (master)
Connection method	Inline data jumper
Transmission speed	500 kBaud / 2 MBaud umschaltbar
Interface	Parameterization/operation/diagnostics
Connection method	RS-232-C, 6-pos. MINI-DIN socket (PS/2), Ethernet 10/100 (RJ45)
Transmission speed	max. 115,2 kBit/s
Interface	Ethernet 10Base-T/100Base-TX
Connection method	RJ45 socket
Transmission speed	10/100 MBit/s

### PROFINET IO

Device function	PROFINET device
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### Power supply

Typical current consumption	210 mA
Max. current consumption	870 mA (370 mA communications power + 500 mA analog voltage supply)

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## Technical data

### Power supply

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC
Residual ripple	± 5 %

### Fieldbus function

Amount of process data	max. 4096 Bit (INTERBUS)
	max. 16384 Bit (internal Modbus Client)
Number of supported devices	max. 128
Number of local bus devices that can be connected	max. 63 (observe current consumption)
Number of devices with parameter channel	max. 16
Number of branch terminals with remote bus branch	max. 3
Module classification	INTERBUS master

### Direct I/Os

Input name	Digital inputs
Connection method	Inline potential distributor
Output name	Digital outputs
Connection method	2, 3, 4-wire
Maximum output current per channel	500 mA

### IEC 61131 runtime system

Programming tool	PC Worx/PC Worx Express
Processing speed	1.5 ms (1 K mix instructions)
	90 µs (1 K bit instructions)
Program memory	256 kByte (21 K instructions (IL))
Mass storage	256 kByte
Retentive mass storage	8 kByte (NVRAM)
Number of data blocks	(depends on mass storage)
Number of timers, counters	(depends on mass storage)
Number of control tasks	8
Realtime clock	Yes

## Classifications

### eCl@ss

eCl@ss 4.0	27240490
eCl@ss 4.1	27240490
eCl@ss 5.0	27242208
eCl@ss 5.1	27242208
eCl@ss 6.0	27242208
eCl@ss 7.0	27242208
eCl@ss 8.0	27242208

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## Classifications

### ETIM

ETIM 3.0	EC001423
ETIM 4.0	EC000236
ETIM 5.0	EC000236

### UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172018
UNSPSC 12.01	43201404
UNSPSC 13.2	43201404

## Approvals

### Approvals

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#### Approvals

UL Listed / cUL Listed / UL Listed / cUL Listed / DNV / RINA / GL / GL-SW / cULus Listed / GL

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#### Ex Approvals

ATEX / ATEX / UL Listed / cUL Listed / cULus Listed

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#### Approvals submitted

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### Approval details

UL Listed

cUL Listed

UL Listed

cUL Listed

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## Approvals

- DNV
- RINA
- GL
- GL-SW
- cULus Listed
- GL

## 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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## Parameterization memory

### Memory - SD FLASH 256MB - 2988120



Program and configuration memory, plug-in, 256 MB

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### Memory - SD FLASH 256MB APPLIC A - 2988816



Program and configuration memory, plug-in, 256 Mbytes with license key for function block libraries, e.g., for: SNMP, SQL, wireless, motion functions, etc.

## Controller - ILC 151 ETH - 2700974

### Accessories

#### Memory - SD FLASH 256MB PDPI PRO - 2700552



Program and configuration memory, plug-in, 256 MB with license key for licensing the PDPI - PRO function block for precise multi-channel controllers with self-optimization, additional functions: e.g., for setpoint processing, for heating and cooling functions.

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#### Memory - SD FLASH 256MB PDPI BASIC - 2700551



Program and configuration memory, plug-in, 256 MB with license key for licensing the PDPI - BASIC function block for precise multi-channel controllers with self-optimization, additional functions: e.g., for heating and cooling functions or hydraulic movements.

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#### Memory - SD FLASH 512MB - 2988146



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

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#### 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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#### Memory - SD FLASH 512MB PDPI BASIC - 2701800



Program and configuration memory, plug-in, 512 MB with license key for licensing the PDPI - BASIC functional block for precise multi-channel controllers with self-optimization, e.g., for heating and cooling functions or hydraulic movements.

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## Controller - ILC 151 ETH - 2700974

### Accessories

#### Memory - SD FLASH 512MB PDPI PRO - 2701801



Program and configuration memory, plug-in, 512 MB with license key for licensing the PDPI - PRO functional block for precise multi-channel controllers with self-optimization, additional functions: e.g., for setpoint processing, for heating and cooling functions.

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#### Memory - SD FLASH 2GB - 2988162



Program and configuration memory

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#### 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

#### Connecting cable - PRG CAB MINI DIN - 2730611



Connecting cable, for connecting the controller to a PC (RS-232) for PC Worx, 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. With a simple selection, you can filter out all of the devices except those from Phoenix Contact.

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