

ILC 131 ETH - Controller

2700973

<https://www.phoenixcontact.com/us/products/2700973>



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Similar figure

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).

Your advantages

- Memory extendable by up to 2 GB via plug-in SD card
- Free engineering with PC Worx Express (IEC 61131-3)
- Complete INTERBUS master (4096 I/O points)
- PROFINET-Device
- Modbus/TCP-Client
- Integrated FTP and HTML5 web server
- Numerous protocols supported such as: HTTP, FTP, SNTP, SNMP, SMTP, SQL, MySQL, etc.

Commercial data

Item number	2700973
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR10
Product key	DRAAAA
GTIN	4046356665490
Weight per piece (including packing)	358.6 g
Weight per piece (excluding packing)	348.2 g
Customs tariff number	85371091
Country of origin	DE

Technical data

Notes

Note on application

Note on application	Only for industrial use
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Utilization restriction

CCCex note	Use in potentially explosive areas is not permitted in China.
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Product properties

Product type	Controller
Product family	Inline-Controller
Type	modular

Display

Diagnostics display	no
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System properties

Retentive data storage	8 kByte (NVRAM)
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IEC 61131 runtime system

Program memory	192 kByte
Data storage system	192 kByte
Number of control tasks	8

INTERBUS-Master

Amount of process data	max. 4096 bit (INTERBUS)
Amount of process data (INTERBUS input/output data max.)	max. 4096 bit (INTERBUS)
Amount of process data (Modbus/TCP client)	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

Modbus/TCP-Client

Amount of process data	max. 8192 bit (internal Modbus /TCP client)
Number of Modbus/TCP clients	max. 4 later than FW 4.42

PROFINET

Device function	PROFINET device
Specification	2.2
Device ID	007D _{hex} / 125 _{dez}
Vendor ID	00B0 _{hex} / 176 _{dez}

Function

Diagnostics display	no
Redundancy function	no

Safety function	no
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Functionality

Programming languages supported	Instruction list (IL)
	Symbolic flowchart (SFC)
	Ladder diagram (LD)
	Function block diagram (FBD)
	Structured text (ST)

System requirements

Configuration tool	Config+ Version 1.01 or later
Diagnostics tool	DIAG+
Runtime system	eCLR
Application interface	OPC

Electrical properties

Transmission medium	Copper
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Real-time clock

Realtime clock	yes
Description realtime clock	8.5 s/day integrated (rechargeable battery buffered)

Potentials: 24 V supply U_{ILC}

Supply voltage	24 V DC -15 % / +20 % (in accordance with EN 61131-2)
Supply voltage range	19.2 V DC ... 30 V DC
Current draw	80 mA (without connected I/O terminal blocks)

Potentials: 7.5 V communications power U_L (potential jumper)

Supply voltage	7.5 V DC \pm 5 %
Power supply	max. 0.8 A DC (observe derating)

Potentials: 24 V analog supply U_{ANA} (potential jumper)

Supply voltage	24 V DC -15 % / +20 %
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply	0.5 A DC (observe derating)

Potentials: 24 V main supply U_M

Supply voltage	24 V DC -15 % / +20 % (in accordance with EN 61131-2)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply	max. 8 A DC (sum of $U_M + U_S$)
Current draw	max. 8 A DC
	6 mA (without sensors)



Potentials: 24 V segment supply U_S

Supply voltage	24 V DC -15 % / +20 % (in accordance with EN 61131-2)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply	max. 8 A (sum of $U_M + U_S$)
Current draw	max. 8 A DC

	10 mA (without actuators)
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Input data

Digital:

Input name	Digital inputs
Description of the input	EN 61131-2 type 1 NPN/PNP
Number of inputs	8
Cable length	max. 30 m
Connection method	Inline potential distributor
Connection technology	2-, 3-, 4-conductor
Input voltage range	-0.5 V ... 30 V
Input voltage range "0" signal	-0.5 V ... 5 V
Input voltage range "1" signal	15 V ... 30 V
Nominal input current at U_{IN}	typ. 7 mA max. 15 mA
Input filter time	typ. 5 ms (Signal change 0→  typ. 5 ms (Signal change 1→ 

Output data

Digital:

Output name	Digital outputs
Connection method	Spring-cage connection
Connection technology	2-, 3-, 4-conductor
Number of outputs	4
Maximum output current per channel	500 mA
Maximum output current per module / terminal block	2 A
Nominal load, lamp	12 W
Nominal load, ohmic	12 W

Connection data

Inline connector

Connection method	Spring-cage connection
Conductor cross-section, rigid	0.08 mm ² ... 1.5 mm ²
Conductor cross-section, flexible	0.08 mm ² ... 1.5 mm ²
Conductor cross-section AWG	28 ... 16

Interfaces

Web server	yes
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Ethernet

Bus system	RJ45
Number of interfaces	1
Connection method	RJ45 jack

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Transmission speed	10/100 Mbps
No. of channels	1

INTERBUS local bus (master)

Number of interfaces	1
Connection method	Inline data jumper
Transmission speed	500 kBaud / 2 MBaud (can be switched)

Parameterization/operation/diagnostics

Bus system	RS-232
Number of interfaces	1
Connection method	6-pos. MINI DIN socket (PS/2)
Transmission speed	max. 115.2 kbps
Transmission physics	Copper
No. of channels	1

Dimensions

Width	80 mm
Height	119.8 mm
Depth	71.5 mm

Material specifications

Color	green (RAL 6021)
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Environmental and real-life conditions

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)
Shock	25g, Criterion 1, according to IEC 60068-2-27
Vibration (operation)	5g
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)
Resistance to gases that may endanger the functions, in acc. with DIN 40046-36, DIN 40046-37	Sulfur dioxide (SO ₂) 10 ±0.3 ppm (test duration: 10 days), hydrogen sulfide (H ₂ S) 1 ±0.3 ppm (test duration: 4 days), both at 25°C and with 75% humidity

EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Conformance with EMC directives	Immunity test in accordance with EN IEC 61000-6-2 Electrostatic discharge (ESD) IEC 61000-4-2 Criterion B, ±6 kV contact discharge, ±8 kV air discharge Immunity test in accordance with EN IEC 61000-6-2 Electromagnetic fields IEC 61000-4-3 Criterion A, Field intensity: 10 V/m

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	Immunity test in accordance with EN IEC 61000-6-2 Fast transients (burst)IEC 61000-4-4 Criterion A, all interfaces ± 1 kVCriterion B, all interfaces ± 2 kV
	Immunity test in accordance with EN IEC 61000-6-2 Transient overvoltage (surge)IEC 61000-4-5 Criterion B; DC supply lines: ± 0.5 kV/ ± 1.0 kV (symmetrical/asymmetrical), fieldbus cable shielding: ± 1.0 kV
	Immunity test in accordance with EN IEC 61000-6-2 Conducted interferenceIEC 61000-4-6 Criterion A, Test voltage 10 V
	Noise emission test in accordance with EN IEC 61000-6-4 Class A

Mounting

Mounting type	DIN rail mounting
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Approvals

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LR

Approval ID: LR23398855TA

BSH

Approval ID: 858



RINA

Approval ID: ELE121121XG

ABS

Approval ID: 22-2226444-PDA



cULus Listed

Approval ID: E238705

DNV

Approval ID: TAA00002CU



BV

Approval ID: 20989_C1 BV



cULus Listed

Approval ID: E199827

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Classifications

ECLASS

ECLASS-13.0	27242207
ECLASS-15.0	27242207

UNSPSC

UNSPSC 21.0	32151700
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	529ed154-954b-4cf2-bf74-44b52ca266d0

EF3.1 Climate Change

CO2e kg	40.6 kg CO2e
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