

# Controller - ILC 191 ME/AN - 2700074

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Inline controller with integrated pulse/direction/PWM interface, RS-485/RS-422, analog inputs (0 ... 10 V), and analog outputs (0 ... 10 V), with programming options according to IEC 61131-3

## Product Description


The ILC 191 ME/AN modular small-scale controller for the Inline I/O system is at the heart of Easy Automation. The new 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. The controller already has 8 digital inputs and 4 outputs, a two-channel pulse/direction/PWM interface, an integrated RS-232 interface and RS-485/RS-422 interface, and a two-channel analog output and input (0 - 10 V).

## Your advantages

- Numerous protocols supported such as: HTTP, FTP, SNT, SNMP, SMTP, SQL, MySQL, etc.
- Modbus/TCP-Client
- PROFINET-Device
- Large program memory and mass storage (1024 kB/1024 kB)
- Modbus/TCP server
- HTML 5
- Free engineering with PC Worx Express (IEC 61131-3)
- Integrated pulse/direction/PWM interface
- Integrated RS-485/RS-422 interface
- Integrated analog I/Os
- Web server, FTP server, and Flash file system



## Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 479097
GTIN	4046356479097
Weight per Piece (excluding packing)	600.000 g
Custom tariff number	85371091

## Controller - ILC 191 ME/AN - 2700074

Country of origin	Germany
-------------------	---------

### Technical data

#### Note

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

#### Dimensions

Width	164 mm
Height	136.8 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	1 Mbyte
Mass storage	1 Mbyte
Retentive mass storage	48 kByte (NVRAM)
Number of control tasks	8
Realtime clock	Yes
Battery	Integrated (rechargeable battery buffered)

#### Fieldbus function

Amount of process data	max. 4096 Bit (INTERBUS)
	max. 32768 Bit (internal Modbus /TCP client)

# Controller - ILC 191 ME/AN - 2700074

## Technical data

### Fieldbus function

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. 24
Number of supported branch terminals with remote bus branch	max. 3
Program memory	1 Mbyte

### Data interfaces

Interface	Ethernet 10Base-T/100Base-TX
Number	2
Connection method	RJ45 jack
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
Interface	RS-422/-485
Number	1
Connection method	4-pos. for full duplex
	2-pos. for half duplex

### PROFINET

Device function	PROFINET device
-----------------	-----------------

### Direct I/Os

Input name	Digital inputs
Number of inputs	8
Connection method	Inline potential distributor
Connection technology	2-, 3-, 4-conductor
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-conductor
Maximum output current per channel	500 mA
Input name	Analog inputs

# Controller - ILC 191 ME/AN - 2700074

## Technical data

### Direct I/Os

Number of inputs	2
Connection method	Inline potential distributor
Connection technology	2-conductor
Voltage input signal	0 V DC ... 10 V DC (Resolution: 11 bits)
Output name	Analog outputs
Number of outputs	2
Connection method	Inline potential distributor
Connection technology	2-conductor
Voltage output signal	0 V DC ... 10 V DC (Resolution: 11 bits)
Output name	Pulse directional output for 5 V signals
Number of pulse direction outputs	2 (can be used as an alternative to pulse width modulation)
Connection method	Spring-cage connection
Connection technology	2-, 3-conductor
Output voltage	5 V
Limit frequency	150 kHz

### Power supply

Typical current consumption	310 mA
Max. current consumption	960 mA (460 mA + 500 mA analog power supply)
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC
Residual ripple	± 5 %
Power dissipation	max. 7.5 W

### Mechanical design

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

### General data

Processor	Altera Nios II 64 MHz
-----------	-----------------------

### 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

# Controller - ILC 191 ME/AN - 2700074

## Technical data

### Standards and Regulations

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
Immunity to conducted interference	Noise immunity test in accordance with EN 61000-6-2 Conducted interference EN 61000-4-6/IEC 61000-4-6 Criterion A, Test voltage 10 V
Vibration (storage/transport)	5g
Shock	25g, Criterion 1, according to IEC 60068-2-27
Vibration (operation)	5g

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Classifications

### eCl@ss

eCl@ss 10.0.1	27242207
eCl@ss 11.0	27242207
eCl@ss 4.0	27250200
eCl@ss 4.1	27240600
eCl@ss 5.0	27242700
eCl@ss 5.1	27242700
eCl@ss 6.0	27242200
eCl@ss 7.0	27242207
eCl@ss 9.0	27242207

### ETIM

ETIM 2.0	EC000236
ETIM 3.0	EC000236
ETIM 4.0	EC000236
ETIM 6.0	EC000236
ETIM 7.0	EC000236

# Controller - ILC 191 ME/AN - 2700074

## Classifications

### UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172018
UNSPSC 12.01	43201404
UNSPSC 13.2	39122114
UNSPSC 18.0	39122114
UNSPSC 19.0	39122114
UNSPSC 20.0	39122114
UNSPSC 21.0	39122114

## Approvals

### Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

ATEX

### Approval details

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
-----------	--	---	---------------

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
------------	--	---	---------------

EAC			RU *- DE.A*30.B.00238
-----	--	--	--------------------------

cULus Listed			
--------------	--	--	--

