

Controller - ILC 171 ETH 2TX - 2700975

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://download.phoenixcontact.com>)

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 171 ETH 2TX, the highly modular Inline controller range from Phoenix Contact has been extended to include a powerful high-performance 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 high-performance controller is highly modular and can be adapted to the relevant application requirements. Its integrated Ethernet interfaces enable 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 |  4 046356 665513 |
| Weight per Piece (excluding packing) | 350.0 GRM |
| Custom tariff number | 85371091 |
| Country of origin | Germany |

Technical data

Note:

Controller - ILC 171 ETH 2TX - 2700975

Technical data

Note:

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

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 | 295 g |
|--------|-------|

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 |
|-----------------|-----------------|

Power supply

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

Controller - ILC 171 ETH 2TX - 2700975

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. 32768 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. 24 |
| 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 | 512 kByte (43 K instructions (IL)) |
| Mass storage | 512 kByte |
| Retentive mass storage | 48 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 | 27250203 |
| eCl@ss 4.1 | 27240601 |
| eCl@ss 5.0 | 27242215 |
| eCl@ss 5.1 | 27242207 |
| eCl@ss 6.0 | 27242207 |
| eCl@ss 7.0 | 27242207 |
| eCl@ss 8.0 | 27242207 |

Controller - ILC 171 ETH 2TX - 2700975

Classifications

ETIM

| | |
|----------|----------|
| ETIM 3.0 | EC000236 |
| 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

Approvals

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

Ex Approvals

ATEX / UL Listed / cUL Listed / cULus Listed

Approvals submitted

Approval details

UL Listed

cUL Listed

UL Listed

cUL Listed

Controller - ILC 171 ETH 2TX - 2700975

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.

Parameterization memory

Memory - SD FLASH 256MB - 2988120



Program and configuration memory, plug-in, 256 MB

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 171 ETH 2TX - 2700975

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.

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.

Memory - SD FLASH 512MB - 2988146



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

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.

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.

Controller - ILC 171 ETH 2TX - 2700975

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.

Memory - SD FLASH 2GB - 2988162



Program and configuration memory

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.

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

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.
