# Controller - ILC 2050 BI - 2403160

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The modular Inline controller for automation applications in infrastructure, energy, and buildings is based on the Niagara 4 framework. Four LAN, two USB, and two RS-485 interfaces are integrated. The controller can be extended with numerous Inline I/O modules.

## Product Description

The ILC 2050 BI is a modular controller specifically for automation applications in infrastructure, energy, and buildings. It is characterized by its scalability and unlimited range of applications in hardware and software. Whether building automation, the development of new business models, controlling networked real estate, data centers or infrastructure management – the ILC 2050 BI controls it all.

## Why buy this product

- Time-optimized engineering using the Niagara 4 framework
- Support for all the main communication protocols used in building infrastructure automation
- Planning, engineering, and visualization in the Java-based Niagara 4 framework
- Easy extension of the Niagara 4 framework with self-programmed functions

RoHS

## Key Commercial Data

| | |
|---|---|
| Packing unit | 1 STK |
| GTIN | 4 055626 260587 |
| GTIN | 4055626260587 |
| Weight per Piece (excluding packing) | 320.000 g |
| Custom tariff number | 85371091 |
| Country of origin | Germany |

## Technical data

### Dimensions

| | |
|---|---|
| Width | 80 mm |
| Height | 119.8 mm |
| Depth | 71.5 mm |

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## Technical data

### Ambient conditions

| | |
|---|---|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -25 °C ... 55 °C |
| Ambient temperature (storage/transport) | -25 °C ... 85 °C |
| Permissible humidity (operation) | 0 % ... 75 % (according to DIN EN 61131-2, non-condensing, no ice formation) |
| Air pressure (operation) | 70 hPa ... 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) |
| 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 ($H_2S$) 1 ±0.3 ppm (test duration: 4 days), both at 25°C and with 75% humidity |

### Control system

| | |
|---|---|
| Programming tool | Niagara 4 |

### Mechanical design

| | |
|---|---|
| Weight | 230 g |
| Diagnostics display | No |
| Controller redundancy | No |

### Data interfaces

| | |
|---|---|
| Interface | Ethernet |
| Number | 4 |
| Connection method | RJ45 socket, shielded |
| Transmission speed | 10/100 Mbps |
| Interface | RS-485 |
| Number | 2 |
| Connection method | Spring-cage connection |
| Transmission speed | max. 200 kbps |
| Interface | USB 1.0/USB 2.0 |
| Number | 1 |
| Connection method | USB type A, socket |
| Interface | USB OTG |
| Number | 1 |
| Connection method | Mini-USB |
| Interface | microSD |
| Number | 1 (Top) |
| Connection method | microSD slot |
| Protocols supported | BACnet/IP |
| | BACnet MS/TP only at COM1 and COM2 |
| | Modbus/TCP |

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## Technical data

### Data interfaces

| | |
|---|---|
| | Modbus/RTU |
| | KNX IP |
| | SNMP |
| | oBIX |
| | DALI |
| | LON |
| | and many more |

### Power supply

| | |
|---|---|
| Typical current consumption | ≤ 170 mA (at nominal voltage without local bus device) |
| Max. current consumption | ≤ 1.5 A |
| Supply voltage | 24 V DC |
| Supply voltage range | 19.2 V DC ... 30 V DC |

### Fieldbus function

| | |
|---|---|
| Number of supported devices | max. 63 |
| Number of local bus devices that can be connected | max. 63 (observe current consumption) |

### General data

| | |
|---|---|
| Processor | ARM® Cortex®-A8 1000 MHz |
| Operating systems | Linux |
| RAM | DDR3 SDRAM512 Mbyte |

### Environmental Product Compliance

| | |
|---|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

## Approvals

### Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

### Approval details

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## Approvals

| | | | |
|---|---|---|---|
| UL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 238705 |
| cUL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 238705 |
| cULus Listed |  | | |