**General Specifications**

- **Operating Temperature:** 0°C to +55°C (32°F to 131°F)
- **Storage Temperature:** -5°C to 85°C (-4°F to 185°F)
- **Humidity:** 5% to 95% (non-condensing)
- **Maximum Air Flow:** 1800, 2400, 4800, 9600, 19200, 38400, 57600, and 115200
- **Dimensions:** 10.39" (264 mm) W x 6.6" (168 mm) H x 4.5" (114 mm) D
- **Enclosure Type:** NEMA ICS3-30
d
- **Agency Approvals:** CE Compliant EN50170:2000
- **EMC Classification:** EN61000-6-2:2002

**Power Supply Specifications**

- **Nominal Voltage Rating:** 120–240 VAC
- **Rated Operating Frequency:** 47–63 Hz
- **Maximum Input Power:** 400VA
- **Input Surge Protection:** Micro fuse 250V, 2A Non-replaceable
- **Isolated User Power Inputs in Ground applied for 1 minute:** 1500VAC Ground to 24VDC applied for 1 minute
- **Rated Discharge:** 21.7W Max
- **Voltage Withstand (dielectric):** 1500VAC Ground to 24VDC applied for 1 minute

**CPU Specifications**

- **Flash Memory:** 1MB flash, 2MB flash
- **User Data Memory:** 1MB flash, 2MB flash
- **Pluggable Option Module:** RS-232, RS-485, Ethernet 10/100 BASE-T (10 Mbps), USB 2.0 Type-B
- **Real Time Clock:** ±2.6s per day typical at 25°C
- **Temperature Range:** 0°C to 60°C
- **Humidity:** 5% to 95% (non-condensing)
- **Agency Approvals:** CE Compliant EN50170:2000
- **Data Rates:** 1200, 2400, 4800, 19200, 38400, 57600, and 115200
- **WinCE 6.00 E151

**Terminal Block Connection Options**

- **Terminal Block Kit:** 90-degree screw type, fits all BRX 28-point PLCs. Kit includes (12) 0.5-pin 5mm terminal blocks.
- **Terminal Block Kit:** 180-degree screw type, fits all BRX 36-point PLCs. Kit includes (12) 0.5-pin 5mm terminal blocks.
- **ZL-BX-CBL15:** ZLPLC I/O cable, 15-pin terminal block to 24-pin connector, 2AWG, 1 meter (3.3 ft.) length, 4 required.
- **ZL-BX-CBL15-2:** ZLPLC I/O cable, 15-pin terminal block to 24-pin connector, 2AWG, 2 meter (6.6 ft.) length, 4 required.
- **ZL-BX-CBL15-3:** ZLPLC I/O cable, 15-pin terminal block to 24-pin connector, 2AWG, 3 meter (9.8 ft.) length, 4 required.
- **ZL-BX-CBL20:** ZLPLC I/O cable, 20-pin terminal block to 24-pin connector, 2AWG, 1 meter (3.3 ft.) length, 4 required.
- **ZL-BX-CBL20-1:** ZLPLC I/O cable, 20-pin terminal block to 24-pin connector, 2AWG, 2 meter (6.6 ft.) length, 4 required.

**CPU Status Indicators**

- **Power:** Red=Power OFF, Green=Power ON
- **Run:** Green=Run Mode, Yellow=Run Mode
- **Error:** Green=Error Clear, Yellow=Error

**Built-in RS-232/485 Port Specifications**

- **Port Name:** COM1
- **Data Rates:** 115200, No Parity, 8 Data Bits, 1 Stop

**Agency Approvals**

- **UL 61010-2-2009**
- **CE Compliant EN61131-2

**Note:** The “EU Directive” topic in the Help File should be followed, and to verify that the equipment, installation, and operation of your equipment. These codes vary from area to area and it is your responsibility to determine which codes should be followed, and to verify that the equipment, installation, and operation are in compliance with the latest revision of these codes.

**WARNING:** To minimize the risk of potential safety problems, you should follow all applicable local and national codes that regulate the installation and operation of your equipment. These codes vary from area to area and it is your responsibility to determine which codes should be followed, and to verify that the equipment, installation, and operation are in compliance with the latest revision of these codes.

**Equipment damage or serious injury to personnel can result from the failure to follow all applicable codes and standards. We do not guarantee the products described in this publication are suitable for your particular application, nor do we assume any responsibility for your product design, installation, or operation.

If you have any questions concerning the installation or operation of this equipment, or if you need additional information, please call Technical Support at 770-844-4200.

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Discrete Input Specifications

<table>
<thead>
<tr>
<th>Input Type</th>
<th>Sink/Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Inputs per Module</td>
<td>20 Total – 10 High Speed (X0..X9)</td>
</tr>
<tr>
<td>Nominal Voltage Rating</td>
<td>12-24 VAC/DC</td>
</tr>
<tr>
<td>Input Voltage Range</td>
<td>9-36 VAC/DC</td>
</tr>
<tr>
<td>AC Frequency</td>
<td>50-60 Hz</td>
</tr>
<tr>
<td>Minimum Input Current</td>
<td>2mA</td>
</tr>
<tr>
<td>OFF Voltage Level</td>
<td>9-30 VAC/DC</td>
</tr>
<tr>
<td>Status Indicators</td>
<td>Logic Side, Green</td>
</tr>
</tbody>
</table>

Discrete Output Specifications

<table>
<thead>
<tr>
<th>Output Type</th>
<th>Sourcing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Outputs per Module</td>
<td>16 Total – 8 High Speed (Y0..Y7)</td>
</tr>
<tr>
<td>Maximum Current per Output</td>
<td>30mA</td>
</tr>
<tr>
<td>Nominal Voltage Rating</td>
<td>36VDC</td>
</tr>
<tr>
<td>Maximum Current</td>
<td>0.5A</td>
</tr>
<tr>
<td>Maximum Voltage</td>
<td>36VDC</td>
</tr>
<tr>
<td>Status Indicators</td>
<td>Logic Side, Green</td>
</tr>
</tbody>
</table>

High Speed Input (HSI) Functions

<table>
<thead>
<tr>
<th>Function</th>
<th>Inputs Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counting</td>
<td>1 Input</td>
</tr>
<tr>
<td>Position Scaling</td>
<td>Frequency</td>
</tr>
<tr>
<td>Measurement</td>
<td>2 Input</td>
</tr>
<tr>
<td>Measurement</td>
<td>3 Input</td>
</tr>
<tr>
<td>Measurement</td>
<td>4 Input</td>
</tr>
</tbody>
</table>

High Speed Output (HSO) Functions

<table>
<thead>
<tr>
<th>Output Mode</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse Mode</td>
<td>1 pulse width, 1 pulse width, 1 pulse width</td>
</tr>
<tr>
<td>Axis Profile</td>
<td>1 pulse width, 1 pulse width, 1 pulse width</td>
</tr>
</tbody>
</table>

I/O Wiring

Discrete Input Wiring

- Sinking Input
  - nc 0 1 2 3
- Sourcing Input
  - nc 0 1 2 3

Discrete Output Wiring

- Sinking Input
  - nc 0 1 2 3
- Sourcing Input
  - nc 0 1 2 3

Supply Power Wiring

- AC Input
  - 120-240VAC
  - 24VDC

Status Indicators

- OFF Voltage Level
- Maximum OFF Current
- Maximum Input Current
- AC Frequency
- Minimum Pulse Width
- DC Frequency
- Maximum Voltage
- Operating Voltage Range
- Nominal Voltage Rating
- Common
- Maximum Current per Common
- Maximum Output Current
- Maximum Leakage Current
- Maximum Switching Frequency
- Status Indicators
- Logic Side, Green

High Speed Output (HSO) Functions

- Pulse Mode
  - 1 pulse width, 1 pulse width, 1 pulse width
- Axis Profile
  - Electronic gearing, Camming, Following, Homing, Jogging

Discrete Output Specifications

- Sink/Source
- Total Outputs per Module
- Maximum Current per Output
- Nominal Voltage Rating
- Maximum Current
- Maximum Voltage
- Status Indicators
- Logic Side, Green

Discrete Input Specifications

- Sink/Source
- Total Inputs per Module
- Nominal Voltage Rating
- Input Voltage Range
- Maximum Voltage
- AC Frequency
- Minimum Input Current
- OFF Voltage Level
- Status Indicators
- Logic Side, Green

Terminal and Front Panel Layout

- CPU Mode Switch
- Battery Replacement Switch
- I/O Terminal Blocks sold separately.
(See Terminal Block Connection Options table).

Note:
- Up counters
- Match register interrupts
- High-speed counter/timer accumulator
- High-speed output (HSO) Functions
- 1. Standard inputs may be used with high-speed functions, but at lower response frequencies of approximately 120Hz.
2. Table Driven Output(s) are triggered by an Axis Position or a high-speed counter/timer accumulator value. It requires the selection of 1 discrete output. (See HSO Note 1 below)

I/O Terminal Blocks sold separately.