

## General Specifications

|                       |   |
|-----------------------|---|
| Operating Temperature | 0° to 60°C (32° to 140°F)   |
| Storage Temperature   | -20° to 85°C (-4° to 185°F)   |
| Humidity              | 5 to 95% (non-condensing)   |
| Environmental Air     | No corrosive gases permitted  |
| Vibration             | IEC60068-2-6 (Test Fc)  |
| Shock                 | IEC60068-2-27 (Test Ea)   |
| Enclosure Type        | Open Equipment  |
| Agency Approvals      | UL61010-2 - UL File # E185989 Canada and USA<br>CE Compliant EN61131-2* |
| Noise Immunity        | NEMA ICS3-304   |
| EU Directive          | See the "EU Directive" topic in the Help File                           |
| Heat Dissipation      | 10.8W Max   |
| Weight                | 198g (7 oz)   |
| Software Version      | Do-more! Designer 2.3 or later, Netedit 3 Version 3.15 or later         |

\*Meets EMC and Safety requirements. See the D.O.C. for details.

## Power Supply Specifications

|                                    |   |
|------------------------------------|---|
| Nominal Voltage Rating             | 120–240 VAC   |
| Input Voltage Range (Tolerance)    | 85-264 VAC  |
| Rated Operating Frequency          | 47–63 Hz  |
| Maximum Input Power                | 40VA  |
| Cold Start Inrush Current          | 1.5A, 2ms   |
| Maximum Inrush Current (Hot Start) | 1.5A, 2ms   |
| Internal Input Fuse Protection     | Micro fuse 250V, 2A Non-replaceable   |
| Isolated User 24VDC Output         | 24VDC @ 0.3A max, <1V P-P Ripple,<br>Integrated self-resetting short circuit protection             |
| Voltage Withstand (dielectric)     | 1500VAC Power Inputs to Ground applied for 1 minute<br>1500VAC Ground to 24VDC applied for 1 minute |
| Replacement Connector              | ADC Part # BX-RTB05   |

Removable Connector Included



| Pinout | Connection |
|--------|------------|
| 1      | L          |
| 2      | N          |
| 3      | GND        |
| 4      | V-         |
| 5      | V+         |

## BX-EBC100-M

### BRX Ethernet Base Controller

120 VAC required, Ethernet port.



**Power terminal block included.**

## Controller Specifications

|                                 |                         |
|---------------------------------|-------------------------|
| Pluggable Option Module         | Not supported           |
| Expansion Modules               | 8 expansion modules max |
| Provided Power for Expansion IO | 21.3W                   |

## Ethernet Specifications

|                                       |  |
|---------------------------------------|--|
| Port Name                             | Ethernet   |
| Description                           | Standard transformer isolated Ethernet port with built-in surge protection.                            |
| Transfer Rate                         | 10Mbps and 100Mbps   |
| Port Status LED                       | LNK LED is solid GREEN when network link is established.<br>ACT LED flashes GREEN when port is active. |
| Supported Protocols                   | Do-more! Ethernet Remote I/O (Server)<br>HOST Ethernet Remote I/O (Server)<br>Modbus TCP/IP (Server)   |
| Cable Recommendation                  | C5E-STxxx-xx from AutomationDirect.com   |
| Port Type                             | RJ45, Category 5, 10/100 BASE-T, Auto Crossover  |
| Ethernet Port Numbers:                |  |
| Do-more! Ethernet Remote I/O (Server) | 28784, UDP   |
| HOST Ethernet Remote I/O (Server)     | 28784, UDP   |
| Modbus TCP/IP (Server)                | 502, TCP   |

**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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Do-more! BRX Manual available at [www.automationdirect.com/pn/doc/manual/BX-EBC100-M](http://www.automationdirect.com/pn/doc/manual/BX-EBC100-M)



## IMPORTANT!



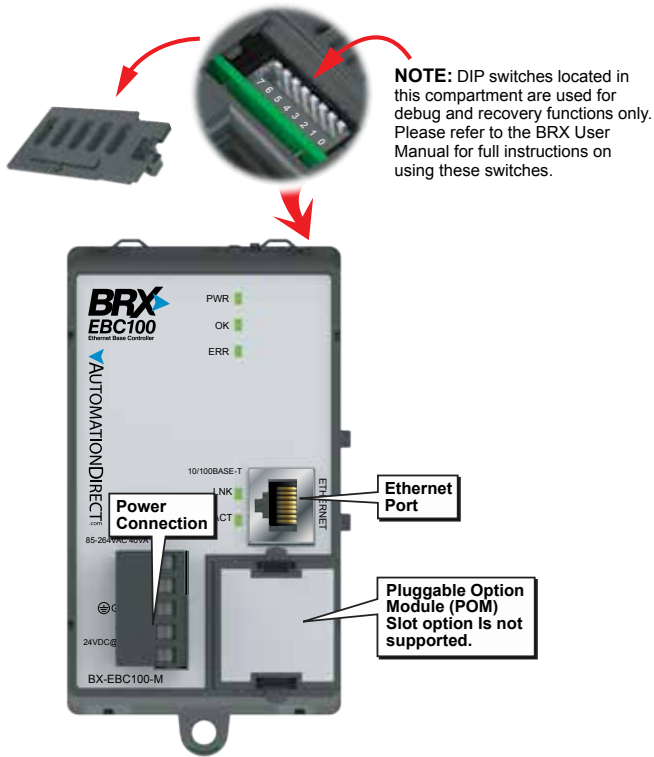
### Hot-Swapping Information

**Note: This device cannot be Hot Swapped.**

| Document Name | Edition/Revision | Date     |
|---------------|------------------|----------|
| BX-EBC100-M   | 1st Ed.          | 4/6/2018 |

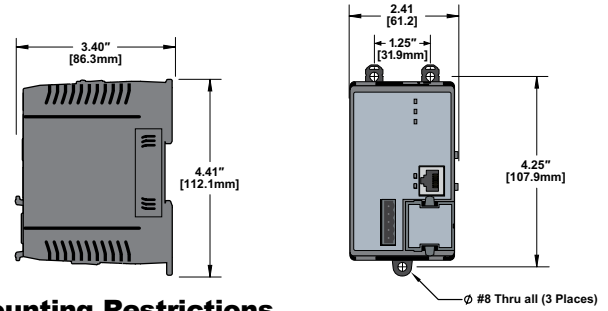
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## Terminal and Front Panel Layout

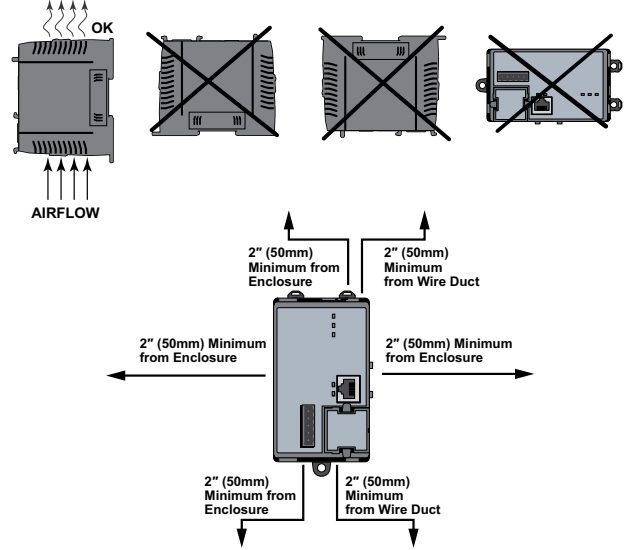


## Dimensional Information

Note: Drawings are for reference only. Shown without terminal blocks.



## Mounting Restrictions



## Status Indicators

| Indicator | Status           | Description  |
|-----------|------------------|--|
| PWR       | OFF              | Base Power is OFF                                      |
|           | GREEN            | Base Power is Good                                     |
| OK        | GREEN            | Controller is Functioning Normally                     |
|           | GREEN (Blinking) | Reset Mode (Booter without OS)                         |
|           | YELLOW           | Analog Module Mismatch                                 |
| ERR       | OFF              | Controller HW Error or Power is Off                    |
|           | RED              | Controller HW Error or Communications Watchdog Timeout |
| LNK       | OFF              | No Ethernet Link                                       |
|           | GREEN            | Ethernet Link is Good                                  |
| ACT       | OFF              | No Ethernet Activity                                   |
|           | GREEN (Blinking) | Ethernet Activity                                      |

## Terminal Block Connector Specifications

| Part Number              | BX-RTB05 (Included)     | BX-RTB05-1 (Optional)                  |
|--------------------------|-------------------------|--|
| Connector Type           | Screw Type-90°          | Spring Clamp Type-180°                 |
| Wire Exit                | 90 degree               | 180 degree                             |
| Pitch                    | 5.0mm                   | 5.0mm                                  |
| Screw Size               | M2.5                    | N/A                                    |
| Recommended Screw torque | < 3.98 Lb-in (0.45 N-m) | N/A                                    |
| Screwdriver Blade Width  | 3.5mm                   | 3.5mm                                  |
| Wire Gauge (Single Wire) | 28-12 AWG               | 28-14 AWG                              |
| Wire Gauge (Two Wires)   | 28-16 AWG               | 28-16 AWG (Dual Wire Ferrule Required) |
| Wire Strip Length        | 0.3in (7.5mm)           | 0.37in (9.5mm)                         |
| Equiv. Dinkle part #     | 5ESDV-05P-BK            | 5ESDSR-05P-BK                          |