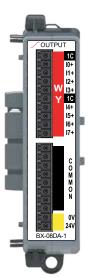
| General Specifications    |   |  |  |
|---------------------------|---|--|--|
| Operating Temperature     | 0° to 45°C (32° to 113°F) - Rev A (Prior to May 2018)   |  |  |
|                           | 0° to 60°C (32° to 140°F) - Rev B (After May 2018)  |  |  |
| Storage Temperature       | -20° to 70°C (-4° to 158°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          | UL61010-2-201 file E139594, Canada & USA<br>CE (Safety: EN61010-2-201 and<br>Immunity: EN61131-2: 2007) |  |  |
| Noise Immunity            | NEMA ICS3-304   |  |  |
| EU Directive              | See the "EU Directive" topic in the BRX Help File.  |  |  |
| Weight                    | 98g (3.5 oz)  |  |  |
| Heat Dissipation          | 6.1W  |  |  |
| Software Version Required | Do-more! Designer Version 2.1, or later.  |  |  |

| *Meets EMC and Safet | v requirements. Se | ee the D.O.C. | for details. |
|----------------------|--------------------|---------------|--------------|
|                      |                    |               |              |

|                                      | Output Specifications                                  |
|--------------------------------------|--|
| Outputs per Module                   | 8  |
| Commons                              | 1  |
| Module Signal Output Range           | 0-20mA, 4-20mA (Default)                               |
| Signal Resolution                    | 16 bit, 15 bit (Default)                               |
| Resolution Value of LSB              | (1 LSB = 1 count)                                      |
| (least significant bit)              | 0-20mA = 0.305μA                                       |
| (@ 16 bit resolution)                | 4-20mA = 0.244µA                                       |
| Output type                          | Current Sourcing up to 22mA                            |
| Output Value in Fault Mode           | ~0mA   |
| Maximum Load Impedance               | 700Ω   |
| Maximum Capacitive Load              | 1000pF   |
| Allowed Load Type                    | Grounded   |
| Maximum Continuous Overload          | 30mA   |
| All Channel Update Rate              | 1.5ms per enabled channel                              |
| Maximum Inaccuracy                   | ±0.05% of range  |
| Maximum Full Scale Calibration Error | ±0.05% of range  |
| Maximum Offset Calibration Error     | ±0.05% of range  |
| Conversion Method                    | Successive approximation                               |
| Accuracy vs. Temperature             | ±25PPM / °C maximum                                    |
| Maximum Crosstalk                    | +10μV  |
| Linearity Error (end to end)         | ±0.06% of range  |
| Output Stability and Repeatability   | ±0.02% of full range after 10 minute warm-up (typical) |
| Output Ripple                        | ±0.01% of range/mA                                     |
| Output Settling Time                 | 200µs  |
| Channel to Backplane Isolation       | 1800VAC applied for 1 second                           |
| Channel to Channel Isolation         | None   |
| Loop Fusing (external)               | Fast-acting 0.032A recommended                         |
| Backplane Power Consumption          | 0.1W   |
| External DC Power Required           | Class 2 or LPS power supply 24VDC (±20%) 250mA         |

# AUTOMATION DIRECTS Expansion Module



### **BX-08DA-1**

### Analog Current Source Output Expansion Module

8-ch, 0-20/4-20mA, 16-bit

I/O Terminal Blocks sold separately. (See Connector Options Spec. table inside.)

**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.

This publication is based on information that was available at the time it was printed. At AutomationDirect.com® we constantly strive to improve our products and services, so we reserve the right to make changes to the products and/or publications at any time without notice and without any obligation. This publication may also discuss features that may not be available in certain revisions of the product.

Do-more BRX Manual available at www.automationdirect.com/pn/doc/manual/BX-08DA-1



#### IMPORTANT!



| Hot-Swapping Information                 |
|--|
| Note: This device cannot be Hot Swapped. |

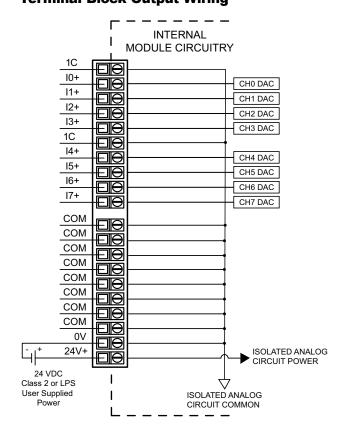
| Document Name | Edition/Revision | Date      |
|---------------|------------------|-----------|
| BX-08DA-1     | 1st Ed. RevC     | 11/3/2020 |

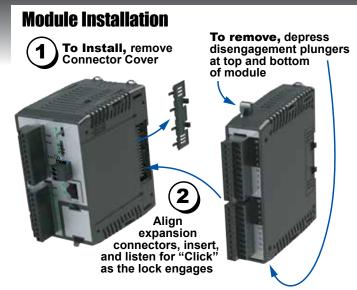
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| Connector O      | ptions Specifications  |
|------------------|--|
| BX-RTB10         | Terminal Block Kit, 90-degree screw type. For use with BRX 10-point PLCs, BRX 16-point expansion modules and all analog and temperature expansion modules. Kit includes (2) 10-pin 3.8mm plugs.  |
| BX-RTB10-1       | Terminal Block Kit, 180-degree spring clamp type. For use with BRX 10-point PLCs, BRX 16-point expansion modules. Kit includes (2) 10-pin 3.8mm plugs.   |
| BX-RTB10-2       | Terminal Block Kit, 180-degree screw type. For use with BRX 10-point PLCs, BRX 16-point expansion modules and all analog and temperature expansion modules. Kit includes (2) 10-pin 3.8mm plugs. |
| ZL-BXEM-CBL20    | <b>ZIP</b> Link PLC I/O cable, 20-position terminal block to 24-pin connector, 24AWG, cable length 0.5 meter (1.6ft). For use with BRX 16-point expansion modules.                               |
| ZL-BXEM-CBL20-1  | <b>ZIP</b> Link PLC I/O cable, 20-position terminal block to 24-pin connector, 24AWG, cable length 1meter (3.3ft). For use with BRX 16-point expansion modules.                                  |
| ZL-BXEM-CBL20-2  | <b>ZIP</b> Link PLC I/O cable, 20-position terminal block to 24-pin connector, 24AWG, cable length 2meter (6.6ft). For use with BRX 16-point expansion modules.                                  |
| ZL-BXEM-CBL20-1P | <b>ZIP</b> Link PLC I/O cable, 20-position terminal block to pigtail connection, 24AWG, cable length 1meter (3.3ft). For use with BRX 16-point expansion modules.                                |
| ZL-BXEM-CBL20-2P | <b>ZIP</b> Link PLC I/O cable, 20-position terminal block to pigtail connection, 24AWG, cable length 2meter (6.6ft). For use with BRX 16-point expansion modules.                                |
| ZL-RTB20         | ZIPLink Two Level Feedthrough Module, 20-pole, 35mm, DIN mount.  |
| ZL-RTB20-1       | ZIPLink Three Level Feedthrough Module, 20-pole, 35mm, DIN mount.  |

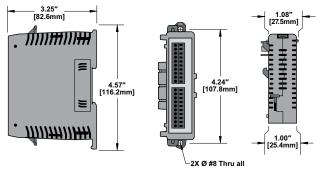
| Terminal Block Connector Specifications |                          |                        |                          |  |
|---|--------------------------|------------------------|--------------------------|--|
| Part Number                             | BX-RTB10                 | BX-RTB10-1             | BX-RTB10-2               |  |
| Connector Type                          | Screw Type-90°           | Spring Clamp Type-180° | Screw Type-180°          |  |
| Pitch                                   | 3.81mm                   | 3.81mm                 | 3.81mm                   |  |
| Recommended<br>Screw torque             | <1.77 lb·in<br>(0.2 N·m) | N/A                    | <1.77 lb·in<br>(0.2 N·m) |  |
| Screwdriver<br>Blade Width              | 2.5mm                    | 2.5mm                  | 2.5mm                    |  |
| Equiv. Dinkle part #                    | EC381V-10P-BK            | ESC381V-10-BK          | EC381F-10P-BK            |  |

## I/O Wiring Terminal Block Output Wiring



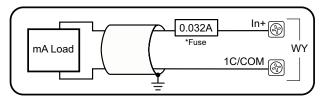


### **Dimensional Information**



### I/O Wiring

### **Analog Current Source Output**



\*An Edison S500-32-R 0.032A fast-acting fuse is recommended for all analog voltage inputs, analog outputs, and current loops.

NOTE: Shield should be connected only at one end, to ground at the source device.