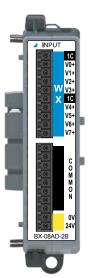
General Specifications			
Operating Temperature	0° to 45°C (32° to 113°F) - Rev A (Prior to May 2018)		
	0° to 60°C (32° to 140°F) - Rev B (After May 2018)		
Storage Temperature	-20° to 70°C (-4° to 158°F)		
Humidity	5 to 95% (non-condensing)		
Environmental Air	No corrosive gases permitted		
Vibration	IEC60068-2-6 (Test Fc)		
Shock	IEC60068-2-27 (Test Ea)		
Enclosure Type	Open Equipment		
Agency Approvals	UL61010-2-201 file E139594, Canada & USA CE (Safety: EN61010-2-201 and 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	0.8W		
Software Version Required	Do-more! Designer Version 2.1, or later.		

*Meets EMC and Safet	v requirements. Se	e the D.O.C.	for details.

Inputs per Module	8
Commons	1
Module Signal Input Range	±10 VDC, ±5 VDC, 0-5 VDC, 0-10 VDC (Default)
Signal Resolution	16 bit, 15 bit (Default)
Resolution Value of LSB (least significant bit) (@ 16 bit resolution)	(1 LSB = 1 count) $\pm 10 \text{ V} = 305\mu\text{V}$ $\pm 5 \text{ V} = 152\mu\text{V}$ $0-5 \text{ V} = 76\mu\text{V}$ $0-10 \text{ V} = 152\mu\text{V}$
Input Impedance	>10MΩ
All Channel Update Rate	45ms (8 channels)
Sample Duration Time	5μs per Channel
Hardware Filter Characteristics	Low Pass 2nd order, -3dB @ 15KHz
Conversion Method	Successive approximation
Accuracy vs. Temperature	±25PPM / °C maximum
Maximum Inaccuracy	0.15% of full range (over temp)
Linearity Error (end to end)	±0.03%
Input Stability and Repeatability	±0.06% of range (after 10 min. warmup)
Full Scale Calibration Error	±0.08% of range
Offset Calibration Error	±0.08% of range
Maximum Crosstalk	-96dB, 1 LSB
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 Power Required	Class 2 or LPS power supply 24VDC (±20%) 25mA

# AUTOMATION DIRECT Expansion Module



## BX-08AD-2B

# Analog Voltage Input Expansion Module

8-ch, ±10 / ±5 / 0-5 / 0-10 VDC. 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-08AD-2B



### **IMPORTANT!**



Hot-Swapping Information

Note: This device cannot be Hot Swapped.

Document Name Ed	dition/Revision	Date
BX-08AD-2B 1s	st Ed. RevB	11/3/2020

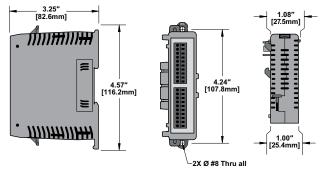
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Connector C	ptions Specifications		
BX-RTB10	Terminal Block Kit, 90-degree screw type. For use with BRX 10-point PLCs, BRX 16-point expansion modules and all analog and temperature expansion modules. Kit includes (2) 10-pin 3.8mm plugs.		
BX-RTB10-1	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 Screw torque	<1.77 lb·in (0.2 N·m)	N/A	<1.77 lb·in (0.2 N·m)			
Screwdriver Blade Width	2.5mm	2.5mm	2.5mm			
Equiv. Dinkle part #	EC381V-10P-BK	ESC381V-10-BK	EC381F-10P-BK			

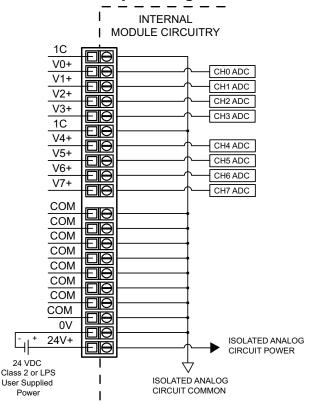
# Module Installation To Install, remove disengagement plungers at top and bottom of module Align expansion connectors, insert, and listen for "Click" as the lock engages

### **Dimensional Information**



### I/O Wiring

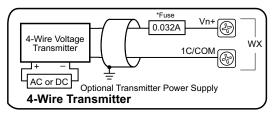
### **Terminal Block Input Wiring**

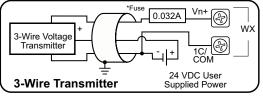


### I/O Wiring

### **Analog Voltage Input Circuits**

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





NOTE: For maximum accuracy: Jumper unused inputs to common.



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