

BRX Remote I/O Controllers

Remote I/O expansion, up to 8 I/O expansion modules per controller

Features

- All units have built-in Ethernet port, 10/100 Mbps
- MBIO units have onboard RS-485 port with removable 3-Pin connector
- Support for 8 expansion modules
- AC and DC powered units available
- AC powered units include an integral 24VDC auxiliary output power supply
- Power connector and serial port connector included



BRX-DMIO-M



BRX-EBC100-M



BRX-MBIO-M

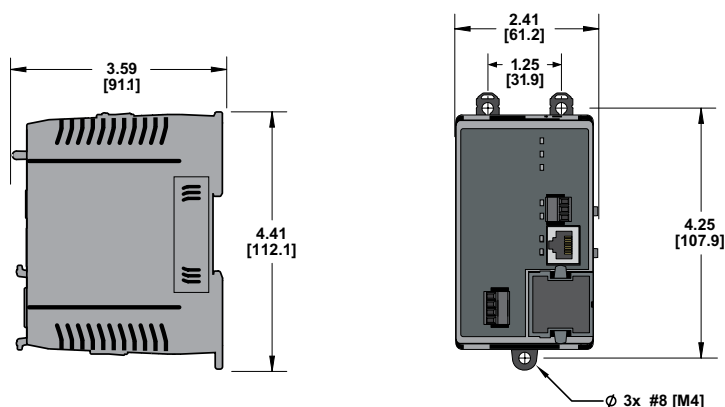
BRX Remote I/O Controllers					
Part Number	Price	External Power	Supported Protocols	Can Be Used With	Expansion Modules
<u>BRX-DMIO-M</u>	\$227.00	120–240 VAC	Do-more! Ethernet Remote I/O	BX-DM1E MPUs H2-DM1E CPUs T1H-DM1E CPUs	8
<u>BRX-DMIO-M-D</u>	\$205.00	12–24 VDC			
<u>BRX-EBC100-M</u>	\$323.00	120–240 VAC	Do-more! Ethernet Remote I/O Host Ethernet Remote I/O Modbus TCP	BX-DM1E MPUs H2-DM1E CPUs T1H-DM1E CPUs H2-ERM100s H4-ERM100s	
<u>BRX-EBC100-M-D</u>	\$301.00	12–24 VDC			
<u>BRX-MBIO-M</u>	\$306.00	120–240 VAC	Modbus RTU Modbus TCP	Modbus RTU Master Modbus TCP Client	
<u>BRX-MBIO-M-D</u>	\$283.00	12–24 VDC			



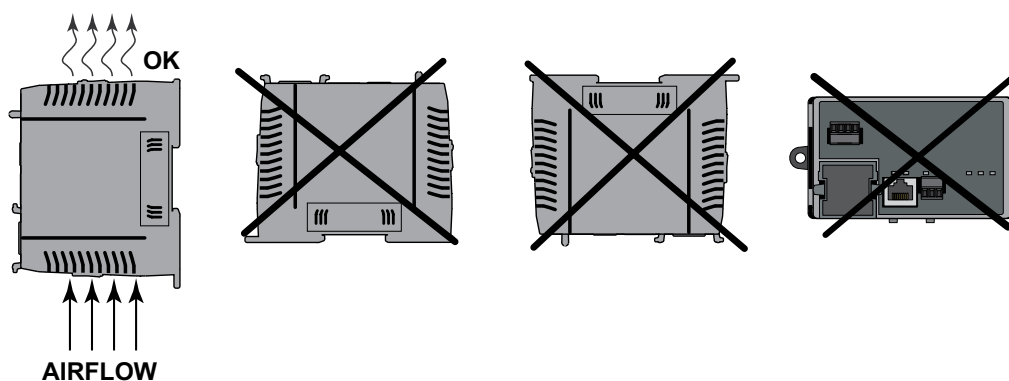
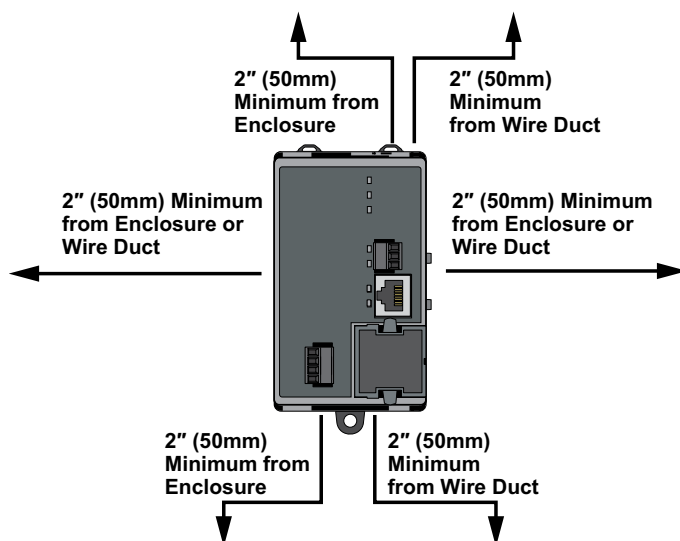
NOTE: Remote I/O controllers do not support Motion Control and Communications Modules.

BRX Remote I/O Controllers

Dimensions, inches[mm]



Clearances and Mounting Restrictions



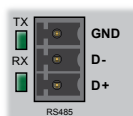
BRX Remote I/O Controllers

Port Specifications

Built-in Ethernet Specifications			
	<i>BX-DMIO-M (-D)</i>	<i>BX-EBC100-M (-D)</i>	<i>BX-MBIO-M (-D)</i>
Port Type	Ethernet		
Description	Standard transformer isolated Ethernet port with built-in surge protection.		
Transfer Rate	10 Mbps (Yellow LED) and 100 Mbps (Green LED)		
Port Status LED	LED is solid when network LINK is established. LED flashes when port is active (ACT).		
Supported Protocols (Server)	Do-more! Ethernet Remote I/O	Do-more! Ethernet Remote I/O HOST Ethernet Remote I/O Modbus TCP	Modbus TCP (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 Expansion I/O (Server) HOST Ethernet Remote I/O (Server) Modbus TCP (Server)	28784, UDP - -	28784, UDP 28784, UDP 502, TCP	- - 502, TCP

BX-MBIO Built-in RS-485 Port Specifications	
Port Name	RS-RS-485 Serial Port
Description	Non-isolated serial port that can communicate via RS-485. Includes ESD protection and built-in surge protection. 120Ω Termination resistor is available (software selectable).
Supported Protocols	Modbus RTU (Slave)
Data Rates	1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200
Timeout	Fixed at 800ms. Once the first character arrives, the controller waits 800ms for the entire request to arrive.
Default Settings	115200 bps, No Parity, 8 Data Bits, 1 Stop Bit, Station #1
Port Type	3-pin terminal strip 3.5 mm pitch
Port Status LED	Green LED is illuminated when active for TXD and RXD
RS-485 Station Addresses	1-247
Cable Recommendations	RS-485 use L19827-XXX from AutomationDirect.com
Replacement Connector	ADC Part # BX-RTB03S

Removable connector included.



Pinout	RS485
1	GND
2	D-
3	D+

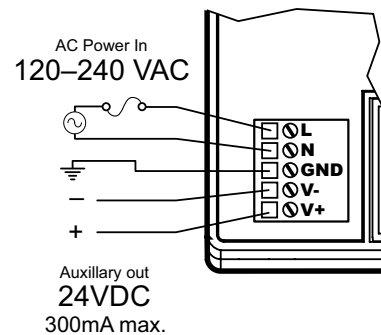
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Power Supply Specifications

Power Supply Specifications		
	AC Models (-M)	DC Models (-M-D)
Nominal Voltage Range	120–240 VAC	12–24 VDC
Input Voltage Range (Tolerance)	85–264 VAC	10–36 VDC
Rated Operating Frequency	47–63 Hz	–
Maximum Input Voltage Ripple	–	< ±10%
Maximum Input Power	40VA	30W
Cold Start Inrush Current	1.5 A, 2ms	5A, 2ms
Maximum Inrush Current (Hot Start)	1.5 A, 2ms	5A, 2ms
Internal Input Protection	Micro fuse 250V, 2A Non-replaceable	Reverse polarity protection and undervoltage lockout via transistor circuit
Heat Dissipation	8W Max	5.5 W Max
Isolated User 24VDC Output	24VDC @ 0.3 A max, <1V P-P Ripple, Integrated self-resetting short circuit protection	None
Voltage Withstand (dielectric)	1500VAC Power Inputs to Ground applied for 1 minute 1500VAC Ground to 24VDC applied for 1 minute	1500VAC power Inputs to ground applied for 1 minute
Replacement Connector	ADC Part # BX-RTB05	ADC Part # BX-RTB03

AC Input Power Wiring

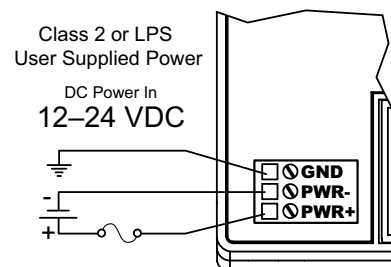
Pin	Connection
1	L
2	N
3	GND
4	V–
5	V+



Removable Connector Included
ADC Part # [BX-RTB05](#)

DC Input Power Wiring

Pin	Connection
1	GND
2	PWR –
3	PWR +



Removable Connector Included
ADC Part # [BX-RTB03](#)

BRX Remote I/O Controller Accessories

Replacement Terminal Block Connectors

A 5mm removable screw type 90-degree terminal block is included with each unit. The power connector replacement

connector specifications are listed in the 2 charts below. Also listed in the tables are an optional spring clamp terminal

block and a screw type 180-degree terminal block that can also be used and are sold separately.

BRX Remote I/O AC Power Supply Connector Specifications			
Part Number	<i>BX-RTB05</i> (included with unit)	<i>BX-RTB05-1</i>	<i>BX-RTB05-2</i>
Price (each)	\$8.50	\$7.00	\$8.00
Connector Type	Screw Type-90 deg	Spring Clamp Type-180 deg	Screw Type-180 deg
Wire Exit	180 deg	180 deg	180 deg
Pitch	5.0 mm	5.0 mm	5.0 mm
Screw Size	M2.5	N/A	M2.5
Recommended Screw Torque	< 3.98 lb·in (0.45 N·m)	N/A	< 3.98 lb·in (0.45 N·m)
Screwdriver Blade Width	3.5 mm	3.5 mm	3.5 mm
Wire Gauge (Single wire)	28–12 AWG	28–14 AWG	28–14 AWG
Wire Gauge (Two wire)	28–16 AWG	28–16 AWG (Dual Wire Ferrule Required)	28–16 AWG (Dual Wire Ferrule Required)
Wire Strip Length	0.3 in (7.5 mm)	0.37 in (9.5 mm)	0.37 in (9.5 mm)
Equiv. Dinkle P/N	5ESDV-05P-BK	5ESDSR-05P-BK	5ESDSR-05P-BK



BX-RTB05



BX-RTB05-1



BX-RTB05-2

BRX Remote I/O DC Power Supply Connector Specifications			
Part Number	<i>BX-RTB03</i>	<i>BX-RTB03-1</i>	<i>BX-RTB03-2</i>
Price (each)	\$5.50	\$5.00	\$4.50
Connector Type	Screw Type-90 deg	Spring Clamp Type-180 deg	Screw Type-180 deg
Wire Exit	180 deg	180 deg	180 deg
Pitch	5.0 mm	5.0 mm	5.0 mm
Screw Size	M2.5	N/A	M2.5
Recommended Screw Torque	< 3.98 lb·in (0.45 N·m)	N/A	< 3.98 lb·in (0.45 N·m)
Screwdriver Blade Width	3.5 mm	3.5 mm	3.5 mm
Wire Gauge (Single wire)	28–12 AWG	28–14 AWG	28–12 AWG
Wire Gauge (Two wire)	28–16 AWG	28–16 AWG (Dual Wire Ferrule Required)	28–16 AWG
Wire Strip Length	0.3 in (7.5 mm)	0.37 in (9.5 mm)	0.3 in (7.5 mm)
Equiv. Dinkle P/N	5ESDV-03P-BK	5ESDSR-03P-BK	5ESDF-03P



BX-RTB03



BX-RTB03-1



BX-RTB03-2