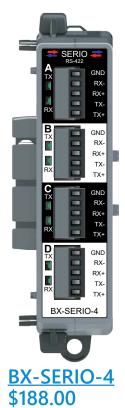
# **BX-SERIO-4** Serial Communications



4 port, RS-422

Four (4) BX-RTB05S Terminal Blocks included.



**NOTE:** This device does not support **ZIP**Link Wiring Systems

#### IMPORTANT!





**Serial Communications Specifications** BX-SERIO-4 Specification Number of Ports Four RS-422 Serial Ports Isolated serial port that can communicate via RS-422. Includes Description ESD protection and built-in surge protection. Do-more! Protocol (Default) Modbus RTU (Master & Slave) Supported Protocols K-Sequence (Slave) ASCII (In & Out) 1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200 bps Data Rates RS-422, 115200bps, No Parity, 8 Data Bits, 1 Stop Bit, Station Default Settings Port Status LED Green LED illuminated when active (TXD and RXD) Port Type Removable 5-pin terminal strip 3.5 mm pitch Station Addresses 1 - 247TX-/RX-RS-422 transceiver low TX+/RX+ RS-422 transceiver high GND Logic Ground Input Impedance  $96k\Omega$ Maximum Load 1 transceiver,  $19k\Omega$  each,  $120\Omega$  termination **Output Short Circuit** ±250mA, thermal shutdown protection **Protection** Minimum Differential Output 2.0 VDC with  $54\Omega$  load Voltage Maximum Common Mode -7.5 to 12.5 VDC Voltage Fail Safe Inputs Logic high input state if inputs are unconnected Electrostatic Discharge ±15kV per IEC 1000-4-2 Protection ADC Part# L19853-XXX Cable Requirements Maximum Cable Distance 1000m [3280ft] Replacement Connector ADC Part# BX-RTB05S Backplane Power 1.2 W Consumption 1.2 W Heat Dissipation Weight 85g (3oz) Software Version Do-more! Designer v2.7 or later

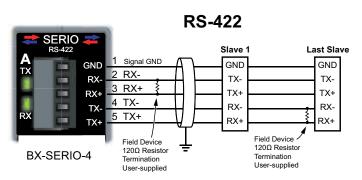


NOTE: Cannot be used in Remote I/O Bases.



**NOTE:** The <u>BX-SERIO-4</u> supports point to point wiring only. Multi-Drop wiring is not supported.

#### **BX-SERIO-4** Field Wiring Diagram



# BRX Motion Control, Communications and Specialty Expansion Modules

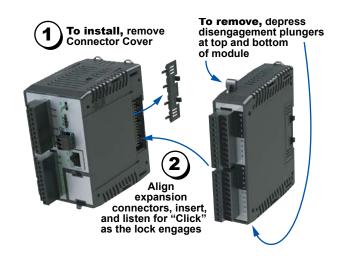
#### **Overview**

One of the unique features of the BRX platform is its ability to expand its capability to fit your application solution. One of the ways the BRX platform can do this is by using expansion modules that conveniently "snap on" to the side of any BRX MPU. Once the expansion module has been snapped into place and is added to the project, it instantly adds I/O to the MPU with little to no additional setup required.

The specialty expansion modules give you the ability to add additional high-speed I/O or serial communications as needed. On the front panel of the expansion modules a color scheme and a symbol are used to denote the module type.

High-speed I/O modules have 8-point sinking/sourcing inputs and are available with 8-point sinking or sourcing outputs, all with switching frequencies up to 250kHz. The serial communications modules have 4 serial ports.

The high-speed I/O modules ship without wiring terminals. This allows you to select the termination style that best suits your application. Several wiring options are available, including screw terminal connectors and spring clamp terminal connectors. The serial communications modules ship with a terminal connector installed in each port.



#### **Hot-Swapping Information**

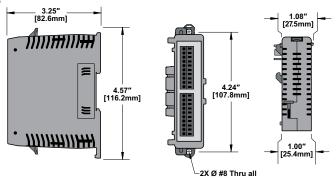
Note: This device cannot be Hot Swapped.

## **General Specifications**

All BRX high-speed input/output modules and serial communications modules have the same general specifications listed in the table below.

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			
Noise Immunity	NEMA ICS3-304			
EU Directive	See the "EU Directive" topic in the BRX Help File			
Agency Approvals	UL 61010-2 File E185989, Canada and USA, CE Compliant EN61131-2			

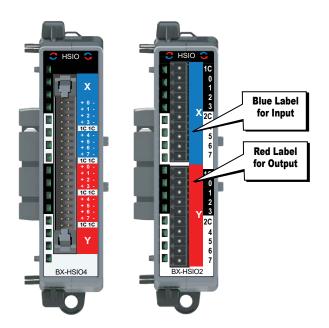
### **Dimensions**





**NOTE:** When removing an expansion module make sure there is room for the module to slide away from the system. Failure to do so will result in difficulty removing the module.

# **BRX Motion Control, Communications and Specialty Expansion Modules**





# **High-speed Input/Output Modules**

Three (3) high-speed input/output modules are available, with eight inputs and eight outputs each. High-speed I/O module faceplates have blue and red terminal bar sections to distinguish input and output terminals, respectively, and have the symbol to signify high-speed I/O.

High-Speed Input/Output Modules							
Part Number	Input Points	Output Points	Output Type	Switching Speed	Price		
BX-HSIO1	8	8	12-24 VDC Sinking	Up to 250kHz	\$229.00		
BX-HSIO2	8	8	12–24 VDC Sourcing	Up to 250kHz	\$229.00		
BX-HSIO4	8	8	2.5–5 VDC Sinking/Sourcing	Up to 2MHz	\$259.00		

### **Serial Communications Module**

Three (3) serial communications modules are available, with four serial ports each. Serial communications module faceplates have black and white terminal sections to distinguish serial terminals, and have the symbol to signify serial I/O.

Serial Communications Module						
Part Number	Ports	Port Type	Price			
BX-SERIO	4	RS-232 / RS-485	\$208.00			
BX-SERIO-2	4	RS-232 with Flow Control	\$204.00			
BX-SERIO-4	4	RS-422	\$188.00			

Expansion Module Support by Controller			
Controller Type	# Expansion Modules		
BX-DM1E-M	8		
BX-DM1-10	2		
BX-DM1E-10	2		
BX-DM1-18	4		
BX-DM1E-18	8		
BX-DM1-36	4		
BX-DM1E-36	8		
BX-DMIO*	8		
BX-EBC100*	8		
BX-MBIO*	8		

<sup>\*</sup> Remote I/O controllers do not support Motion Control and Communications Modules.