BX-P-ECOMLT Specifications

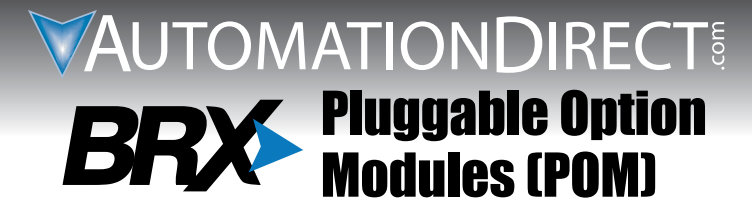|	Standard transformer isolated Ethernet port with built-in surge protection. Works with all BRX Processors; BX-DM1-x, BX-DM1E-x.
Transfer Rate	10Mbps (Orange LED) and 100Mbps (Green LED) (1Mbps throughput max).
Port Status LED	LINK LED is solid when network link is established. ACT LED flashes when port is active.
Supported Protocols	Do-more! Protocol (Server) Programming/Monitoring Modbus TCP (Server) K-sequence (Server)
Cable Recommendation	C5E-STxxx-xx from AutomationDirect.com
Port Type	RJ45, Category 5, 10/100 BASE-T, Auto Crossover
Hot Swappable	Yes

BX-P-USB-B Specifications

	USB Type B for programming.
USB Specification Version	USB 2.0
Port Status LED	LED flashes when port is active
Cable Requirements Recommendation	USB-CBL-ABxx from AutomationDirect.com
Hot Swappable	Yes

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 CE Compliant E185989*
Noise Immunity	NEMA ICS3-304
EU Directive	See the "EU Directive" topic in the Help File
Weight	7g (0.25 oz)

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

BX-P-ECOMEX Specifications

	Standard transformer isolated Ethernet port with built-in surge protection. **Requires Ethernet Enabled BRX Processor; BX-DM1E-x. Must be placed on a separate subnet than the processor onboard port.**
Transfer Rate	10/100 Mbps
Port Status LED	LINK LED is solid when network is established. ACT LED flashes when port is active.
Cable Recommendation	C5E-STxxx-xx from AutomationDirect.com
Port Type	RJ45, Category 5, Auto Crossover
Hot Swappable	Yes
Supported Protocols	SMTP(Email) FTP (Client) Do-more! Ethernet I/O MQTT / MQTTS HTTP / HTTPS EtherNet/IP (Explicit Messaging) SNTP (Time Server) TCP/IP (Raw Packet) Modbus TCP/IP (Client & Server) DHCP (Client) Do-more! Protocol Do-more! PeerLink

AUTOMATIONDIRECT.com

BRX Pluggable Option Modules (POM)

BX-P-ECOMLT Ethernet port using RJ45 connection, Limited use port; server functions only

BX-P-ECOMEX Secondary Ethernet Port

BX-P-USB-B USB port Type B connection

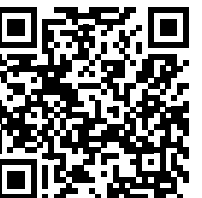**BX-P-SER2-RJ12** RS232 Serial Port using an RJ12 connection

BX-P-SER2-TERM RS232 Serial Port using a 3-pin terminal block connection

BX-P-SER4-TERM RS485 serial port using a 3-pin terminal block connection

BX-P-SER2-TERMFC RS232 Serial Port with Flow Control using a 5-pin terminal block connection

BX-P-SER422-TERM RS422 serial port Terminal using a 5-pin terminal block connection

Do-more! BRX Manual available at
www.automationdirect.com/pn/doc/manual/BX-POM

IMPORTANT!

Hot-Swapping Information
Note: This device may be Hot Swapped.

Document Name	Edition/Revision	Date
BX-POM	1st Ed. RevF	9/8//2020

BX-P-SER2-TERM Specifications

Non-isolated RS-232 DTE port. Includes ESD protection and built-in surge protection.

Support Protocols	Do-more! Protocol (Default) Modbus RTU (Master & Slave) K-Sequence (Slave)	ASCII (In & Out) Custom Protocols
Data Rates	1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200	
Default Settings	115200bps, No Parity, 8 Data Bits, 1 Stop Bit, Station #1	
Port Status LED	Green LED is illuminated when active for TXD and RXD	
Cable Requirements	Recommend L19772-XXX from AutomationDirect.com	
Replacement Connectors	BX-RTB03S from AutomationDirect.com	
Hot Swappable	Yes	

BX-P-SER4-TERM Specifications

Non-isolated RS-485 DTE port. Includes ESD protection and built-in surge protection.

Support Protocols	Do-more! Protocol (Default) Modbus RTU (Master & Slave) K-Sequence (Slave)	ASCII (In & Out) Custom Protocols
Data Rates	1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200	
Default Settings	115200bps, No Parity, 8 Data Bits, 1 Stop Bit, Station #1, termination resistor OFF	
RS-485 Station Addresses	1-247	
Port Status LED	Green LED is illuminated when active for TXD and RXD	
DIP Switch	Selectable 120Ω termination resistor	
Cable Options	Recommend L19827-XXX from AutomationDirect.com	
Replacement Connectors	BX-RTB03S from AutomationDirect.com	
Hot Swappable	Yes	

BX-RTB03S and BX-RTB05S Connector Specifications

Part Number	BX-RTB03S	BX-RTB05S
Connector Type	Screw Type	
Wire Exit	180 degree	
Pitch	3.5mm	
Screw Size	M2	
Recommended Screw torque	<1.77Lb-in (0.2 N-m)	
Screwdriver Blade Width	2.5mm	
Wire Gauge (Single Wire)	28-16 AWG	
Wire Gauge (Two Wires)	28-16 AWG	
Wire Strip Length	0.24in (6mm)	
Equiv. Dinkle part #	EC350V-03P-BK	EC350V-05P-BK

Removable connector included.

Pinout	RS232	RS485
1	GND	GND
2	RXD	D-
3	TXD	D+

Removable connector included.

Pinout	RS232	RS422
1	GND	GND
2	RX-	RX-
3	RX+	RX+
4	RX-	RX-
5	RX+	RX+

POM Module Installation

① Compress tabs and remove Filler Module
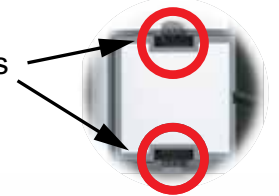
② Seat POM module into Connector and press until firmly until tabs are fully engaged.

Filler Module
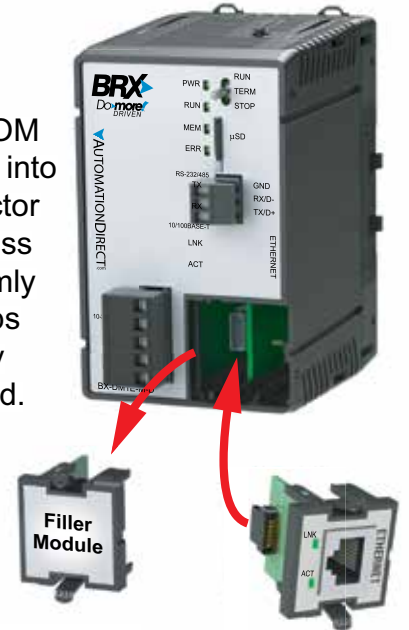
BX-P-SER2-TERMFC Specifications

Non-isolated Serial port that can communicate via RS-232. Includes ESD protection and built-in surge protection.

Support Protocols	Do-more! Protocol (Default) Modbus RTU (Master & Slave)	K-Sequence (Slave) ASCII (In & Out)
Data Rates	1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200	
Default Settings	RS232, 115200bps, No Parity, 8 Data Bits, 1 Stop Bit, Station #1	
Port Status LED	Green LED is illuminated when active for TXD and RXD	
Port Type	5-pin terminal strip 3.5mm pitch	
RS-232 TXD	RS-232 Transmit output	
RS-232 RXD	RS-232 Receive input	
RS-232 GND	Logic ground	
RS-232 CTS	RS-232 Clear to Send input	
RS-232 RTS	RS-232 Request to Send output	
RS-232 Maximum Output Load (TXD/RTS)	3kΩ, 1000 pf	
RS-232 Minimum Output Voltage Swing	+/-5 VDC	
RS-232 Output Short Circuit Protection	+/-15ma	
Cable Requirements	Recommend RS-232 use L19853-XXX from AutomationDirect.com	
Replacement Connectors	BX-RTB05S from AutomationDirect.com	
Hot Swappable	Yes	

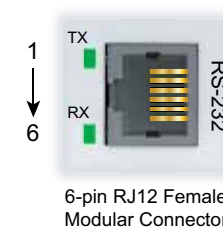## BX-P-SER422-TERM Specifications

Non-isolated Serial port that can communicate via RS-422. Includes ESD protection and built-in surge protection.

Support Protocols	Do-more! Protocol (Default) Modbus RTU (Master & Slave)	K-Sequence (Slave) ASCII (In & Out)
Data Rates	1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200	
Default Settings	RS422, 115200bps, No Parity, 8 Data Bits, 1 Stop Bit, Station #1	
Port Status LED	Green LED is illuminated when active for TXD and RXD	
Port Type	5-pin terminal strip 3.5mm pitch	
RS-422 Station Addresses	1-247	
RS-422 TXD-/RXD-	RS-422 transceiver low	
RS-422 GND	Logic ground	
RS-422 Input Impedance	96kΩ	
RS-422 Maximum Load	50 transceivers, 19kΩ each, 120Ω termination	
RS-422 Output Short Circuit Protection	+/-250mA, thermal shut-down protection	
RS-422 Minimum Differential Output Voltage	2.0 VDC with 54Ω load	
RS-422 Maximum Common Mode Voltage	-7.5-12.5 VDC	
RS-422 Fail Safe Inputs	Logic high input state if inputs are unconnected	
RS-422 Electrostatic Discharge Protection	+/-15KV human body, +/-6KV contact discharge per IEC61000-4-2	
Cable Requirements	Recommend RS-422 use L19853-XXX from AutomationDirect.com	
Replacement Connectors	BX-RTB05S from AutomationDirect.com	
Hot Swappable	Yes	

BX-P-SER2-RJ12 Specifications

Non-isolated RS-232 DTE. Includes ESD protection and built-in surge protection.

Supported Protocols	Do-more! Protocol (Default) Modbus RTU (Master & Slave)	K-Sequence (Slave) ASCII (In & Out)
Data Rates	1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200	
Default Settings	115200 bps, No Parity, 8 Data Bits, 1 Stop Bit, Station #1	
Port Status LED	Green LED is illuminated when active for TXD and RXD	
Cable Requirements	Recommend L19772-xxx from AutomationDirect.com	
RS-232 Port Type	RJ12 - 6P6C connector	
Hot Swappable	Yes	
Output Power	5VDC @ 220mA Max	

6-pin RJ12 Female Modular Connector

Pin #		Signal
1	0V	Power (-) connection (GND)
2	5V	Power (+) connection (220mA max)
3	RXD	Receive Data (RS-232)
4	TXD	Transmit Data (RS-232)
5	RTS	Request to Send (RS-232)
6	CTS	Clear to Send (RS-232)