

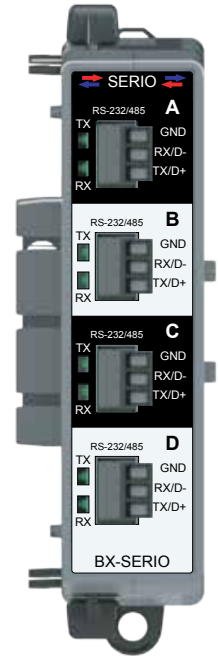
General Specifications	
Operating Temperature	0° to 60°C (32° to 140°F)
Storage Temperature	-20° to 85°C (-4° to 185°F)
Humidity	5 to 95% (non-condensing)
Environmental Air	No corrosive gases permitted
Vibration	IEC60068-2-6 (Test Fc)
Shock	IEC60068-2-27 (Test Ea)
Enclosure Type	Open Equipment
Agency Approvals	UL61010-2 - UL File # E185989 Canada and USA CE Compliant EN61131-2*
Noise Immunity	NEMA ICS3-304
EU Directive	See the "EU Directive" topic in the Help File
Heat Dissipation	1.2W
Weight	85g (3 oz)
Software Version	Do-more! Designer 2.5 or later

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

## BX-SERIO

### Serial Communications Module

4 Isolated ports, 3-pin,  
RS-232/RS-485



**Four removable 3-pin connectors included.**

RS-232/485 Serial Port Specifications		
Number of Ports	Four RS-232/RS-485 Serial Ports	
Description	Isolated serial port that can communicate via RS-232 or RS-485 (software selectable). Includes ESD protection and built-in surge protection.	
Supported Protocols	Do-more!™ Protocol (Slave)(Default), Modbus RTU (Master/Slave), DMX512 (Master/Slave), K-Sequence (Slave), ASCII (In/Out)	
Data Rates	1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200 Baud	
Default Settings	RS-232, 115200bps, No Parity, 8 Data Bits, 1 Stop Bit, Station #1, Termination resistor OFF	
Port Status LED	Green LED illuminated when active (TX and RX)	
Port Type	Removable 3-pin terminal strip 3.5 mm pitch	
	<b>RS-232</b>	<b>RS-485</b>
Station Addresses	N/A	1-247
RX/D-	Receive input (RX)	Transceiver low (D-)
TX/D+	Transmit output (TX)	Transceiver high (D+)
GND	Logic Ground	
Input Impedance	5kΩ	19kΩ
Terminating Resistor	N/A	120Ω, software selectable
Maximum Load	3kΩ, 1000pf	50 transceivers, 19kΩ each, 120Ω termination
Output Short Circuit Protection	±15mA	±250mA, thermal shut-down protection
Electrostatic Discharge Protection	±1.5 kV per JESD22-C101	±7kV per IEC61000-4-2
Electrical Fast Transient Protection	N/A	±2kV per IEC61000-4-4
Min. Output Voltage	±5V with 3kΩ load	Differential: 1.5 V with 60Ω load
Fail Safe Inputs	N/A	Logic high input state if inputs are unconnected
Maximum Common Mode Voltage	500 Vrms to Logic Ground	
Cable Requirements	ADC# L19772-XXX	ADC# L19954-XXX
Maximum Cable Distance	30m [100ft]; 6m [20ft] rec'd max.	1000m [3280ft]
Replacement Connector	ADC Part # BX-RTB03S	

**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-SERIO](http://www.automationdirect.com/pn/doc/manual/BX-SERIO)



### IMPORTANT!



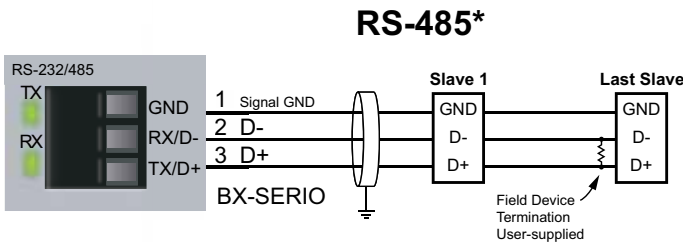
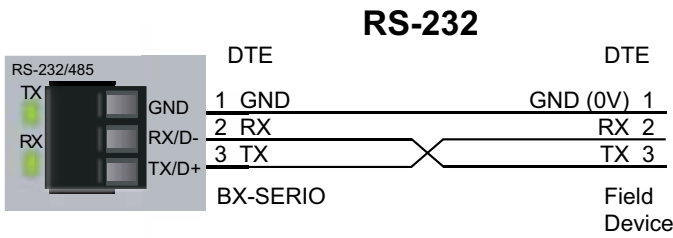
#### Hot-Swapping Information

**Note: This device cannot be Hot Swapped.**

Document Name	Edition/Revision	Date
BX-SERIO	1st Ed.	1/14/2019

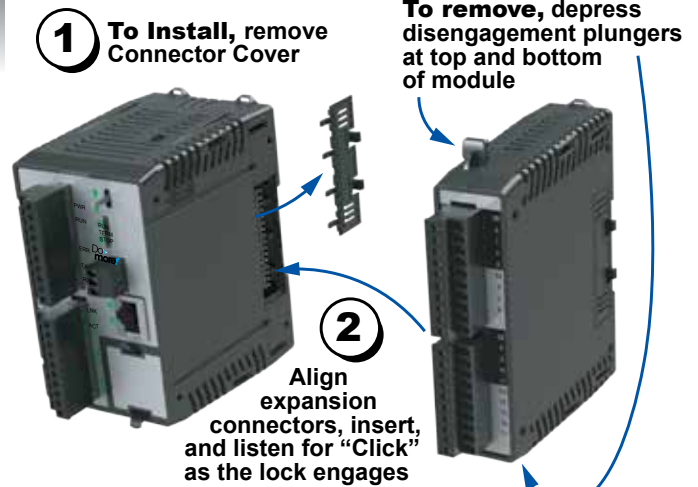
Copyright 2019, AutomationDirect.com Incorporated/All Rights Reserved Worldwide.

## Field Wiring Information



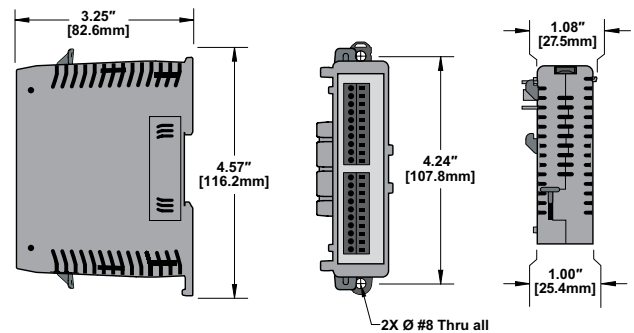
\*NOTE: Termination resistor is built-in and software selectable.  
ADC # L19827-xxx or equivalent is recommend for RS-485 networks.

## Module Installation

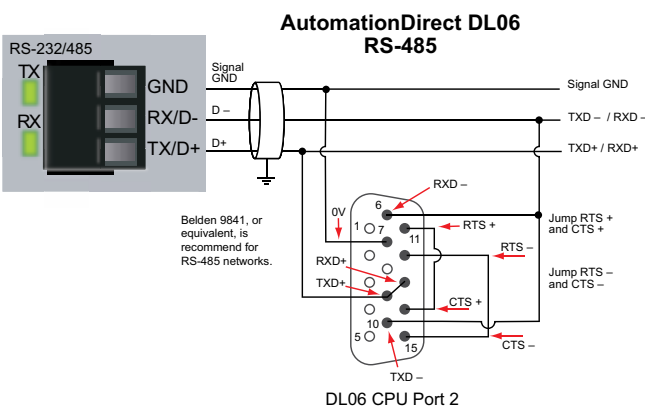
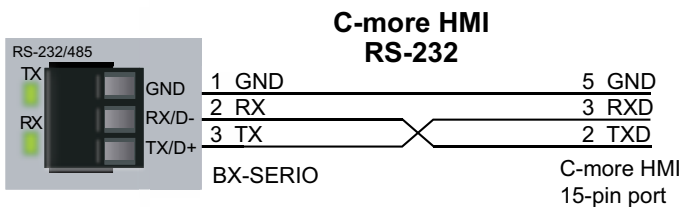


## Dimensional Information

Note: Drawings are for reference only. Shown without terminal blocks.



## Example Wiring Connections

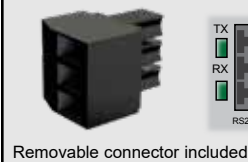


## Terminal Block Connector Specifications

Part Number	BX-RTB03S
Connector Type	Screw Type-90
Wire Exit	90 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

## RS-232/485 Port Replacement Connector

Replacement Connector      ADC Part # BX-RTB03S



Pinout	RS232	RS485
1	GND	GND
2	RX	D-
3	TX	D+

\* NOTE: When using RS-485, a terminator resistor is built-in and software selectable.