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	10.8W Max
Weight	198g (7 oz)
Software Version	Do-more! Designer 2.3 or later, Netedit 3 Version 3.15 or later

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

Power Supply Specifications

Nominal Voltage Rating	120–240 VAC
Input Voltage Range (Tolerance)	85-264 VAC
Rated Operating Frequency	47–63 Hz
Maximum Input Power	40VA
Cold Start Inrush Current	1.5A, 2ms
Maximum Inrush Current (Hot Start)	1.5A, 2ms
Internal Input Fuse Protection	Micro fuse 250V, 2A Non-replaceable
Isolated User 24VDC Output	24VDC @ 0.3A max, <1V P-P Ripple, Integrated self-resetting short circuit protection
Voltage Withstand (dielectric)	1500VAC Power Inputs to Ground applied for 1 minute
	1500VAC Ground to 24VDC applied for 1 minute
Replacement Connector	ADC Part # BX-RTB05

Removable Connector Included

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

AUTOMATIONDIRECT.com

BRX

BX-EBC100-M

BRX Ethernet Base Controller
120 VAC required, Ethernet port.

Power terminal block included.

Ethernet Specifications

Port Name	Ethernet
Description	Standard transformer isolated Ethernet port with built-in surge protection.
Transfer Rate	10Mbps and 100Mbps
Port Status LED	LNK LED is solid GREEN when network link is established. ACT LED flashes GREEN when port is active.
Supported Protocols	Do-more! Ethernet Remote I/O (Server) HOST Ethernet Remote I/O (Server) Modbus TCP/IP (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 Remote I/O (Server)	28784, UDP
HOST Ethernet Remote I/O (Server)	28784, UDP
Modbus TCP/IP (Server)	502, TCP

Do-more! BRX Manual available at www.automationdirect.com/pn/doc/manual/BX-EBC100-M

IMPORTANT!

Hot-Swapping Information
Note: This device cannot be Hot Swapped.

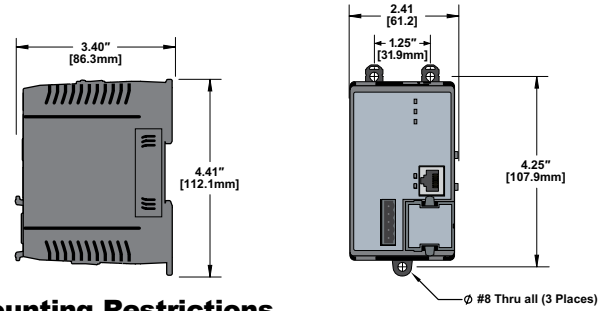| Document Name	Edition/Revision	Date
BX-EBC100-M	1st Ed. RevA	9/8/2021

NOTE: DIP switches located in this compartment are used for debug and recovery functions only. Please refer to the BRX User Manual for full instructions on using these switches.
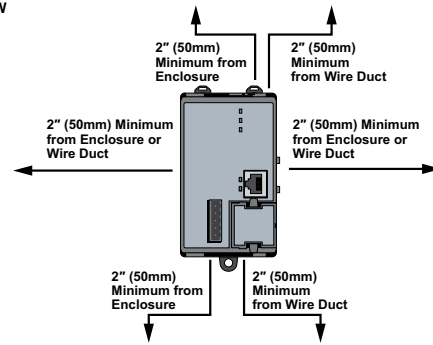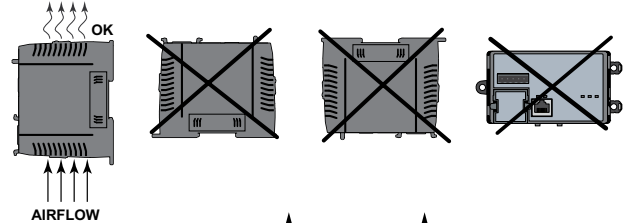
BRX
EBC100
Ethernet Base Controller

AUTOMATIONDIRECT.com

PWR
OK
ERR

10/100BASE-T
LNK
ACT

ETHERNET

Power Connection

Ethernet Port

85-264VAC 40VA

24VDC@

BX-EBC100-M

Pluggable Option Module (POM) Slot option Is not supported.
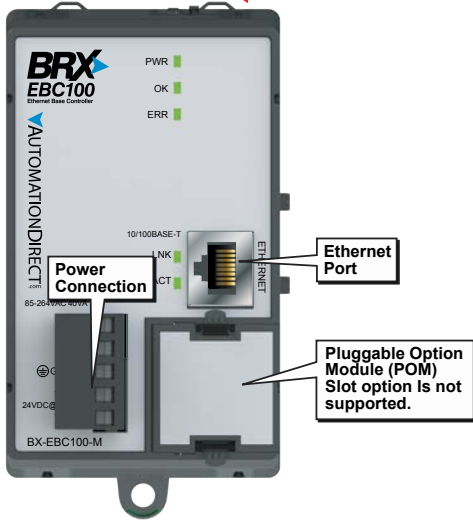
Dimensional Information

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

3.40" [86.3mm]

4.41" [112.1mm]

2.41 [61.2]
1.25" [31.9mm]

4.25" [107.9mm]

⌀ #8 Thru all (3 Places)

Mounting Restrictions

OK

AIRFLOW

2" (50mm) Minimum from Enclosure

2" (50mm) Minimum from Wire Duct

2" (50mm) Minimum from Enclosure or Wire Duct

2" (50mm) Minimum from Enclosure or Wire Duct

2" (50mm) Minimum from Enclosure

2" (50mm) Minimum from Wire Duct

Status Indicators

Indicator	Status	Description
PWR	OFF	Base Power is OFF
	GREEN	Base Power is Good
OK	GREEN	Controller is Functioning Normally
	GREEN (Blinking)	Reset Mode (Booter without OS)
	YELLOW	Analog Module Mismatch
	OFF	Controller HW Error or Power is Off
ERR	OFF	Controller is Functioning Normally
	RED	Controller HW Error or Communications Watchdog Timeout
	RED (Blinking)	Reset Mode (Booter without OS)
LNK	OFF	No Ethernet Link
	GREEN	Ethernet Link is Good
ACT	OFF	No Ethernet Activity
	GREEN (Blinking)	Ethernet Activity

Terminal Block Connector Specifications

Part Number	BX-RTB05 (Included)	BX-RTB05-1 (Optional)
Connector Type	Screw Type-90°	Spring Clamp Type-180°
Wire Exit	90 degree	180 degree
Pitch	5.0mm	5.0mm
Screw Size	M2.5	N/A
Recommended Screw torque	< 3.98 Lb-in (0.45 N-m)	N/A
Screwdriver Blade Width	3.5mm	3.5mm
Wire Gauge (Single Wire)	28-12 AWG	28-14 AWG
Wire Gauge (Two Wires)	28-16 AWG	28-16 AWG (Dual Wire Ferrule Required)
Wire Strip Length	0.3in (7.5mm)	0.37in (9.5mm)
Equiv. Dinkle part #	5ESDV-05P-BK	5ESDSR-05P-BK