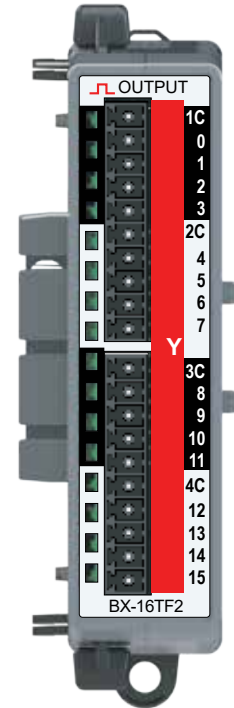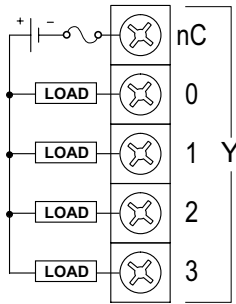## General Specifications

| | |
|---|---|
| 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 |
| Weight | 95g (3.4 oz) |
| Software Version | Do-more! Designer 2.8 or later |

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

## I/O Wiring

### Sinking Output



## AUTOMATIONDIRECT.com

## BRX Expansion Module

# BX-16TF2
**Output Module** 16-pt,
3–5 VDC, Sourcing



*ZIP*Link **Connections system available for this module.**
(See Terminal Block Connection Options tables).

## Discrete Output Specifications

| | |
|---|---|
| Output Type | Sourcing |
| Outputs per Module | 16 |
| Commons | 4 |
| Maximum Current per Common | 96mA |
| Nominal Voltage | 3.3-5 VDC |
| Operating Voltage Range | 1.65VDC-5.5VDC |
| Peak Voltage | 5.5VDC |
| Minimum Output Current | 0µA |
| Maximum Output Current | 24mA per output, no derating over temperature range |
| Maximum Leakage Current | 10µA |
| ON Voltage Drop | 0.05 VDC |
| Fuses, Overcurrent Protection | N/A |
| OFF-ON Response | < 5ms |
| ON-OFF Response | < 2ms |
| Status Indicators | Logic Side, Green |
| Backplane Power Consumption | 0.9 W |
| Heat Dissipation | 1.2 W |

**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-16TF2

## IMPORTANT!

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

| Document Name | Edition/Revision | Date |
|---|---|---|
| BX-16TF2 | 1st Ed. RevA | 11/3/2020 |

## Connector Options — 16 point

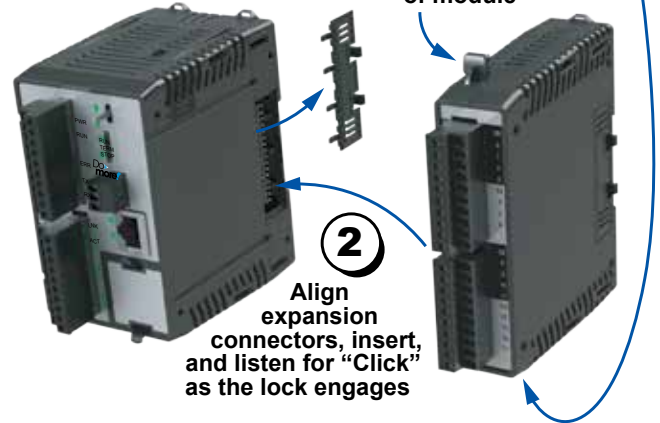| | |
|---|---|
| **BX-RTB10** | Terminal Block Kit, 90-degree screw type. For use with BRX 10-point PLCs and BRX 16-point expansion modules.Kit includes (2) 10-pin 3.8mm plugs. |
| **BX-RTB10-1** | Terminal Block Kit, 180-degree spring clamp type. For use with BRX 10-point PLCs and BRX 16-point expansion modules.Kit includes (2) 10-pin 3.8mm plugs. |
| **BX-RTB10-2** | Terminal Block Kit, 180-degree screw type. For use with BRX 10-point PLCs and BRX 16-point expansion modules.Kit includes (2) 10-pin 3.8mm plugs. |
| **ZL-BXEM-CBL20** | *ZIP*Link PLC I/O cable, 20-position terminal block to 24-pin connector, 24AWG, cable length 0.5meter (1.6ft). For use with 16-point BRX expansion modules. |
| **ZL-BXEM-CBL20-1** | *ZIP*Link PLC I/O cable, 20-position terminal block to 24-pin connector, 24AWG, cable length 1meter (3.3ft). For use with 16-point BRX expansion modules. |
| **ZL-BXEM-CBL20-2** | *ZIP*Link PLC I/O cable, 20-position terminal block to 24-pin connector, 24AWG, cable length 2meter (6.6ft). For use with 16-point BRX expansion modules. |
| **ZL-BXEM-CBL20-1P** | *ZIP*Link PLC I/O cable, 20-position terminal block to pigtail connection, 24AWG, cable length 1meter (3.3ft). For use with 16-point BRX expansion modules. |
| **ZL-BXEM-CBL20-2P** | *ZIP*Link PLC I/O cable, 20-position terminal block to pigtail connection, 24AWG, cable length 2meter (6.6ft). For use with 16-point BRX expansion modules. |
| **ZL-RTB20** | *ZIP*Link Two Level Feedthrough Module, 20-pole, 35mm, DIN mount. |
| **ZL-RTB20-1** | *ZIP*Link Three Level Feedthrough Module, 20-pole, 35mm, DIN mount. |

## Module Installation

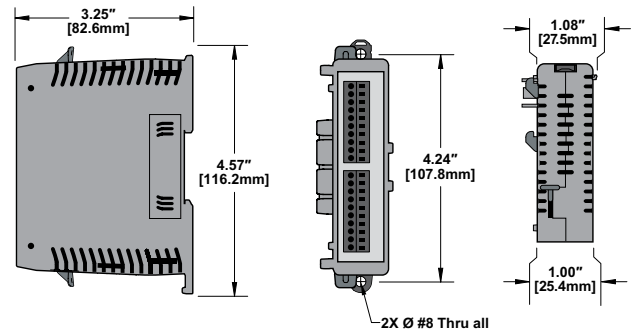**1** **To Install,** remove Connector Cover

**To remove,** depress disengagement plungers at top and bottom of module

**2** **Align expansion connectors, insert, and listen for "Click" as the lock engages**

## Dimensional Information

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

3.25″ [82.6mm]

4.57″ [116.2mm]

1.08″ [27.5mm]

4.24″ [107.8mm]

1.00″ [25.4mm]

2X Ø #8 Thru all

## 16 point Terminal Block Connector Specifications

| Part Number | BX-RTB10 | BX-RTB10-1 | BX-RTB10-2 |
|---|---|---|---|
| Connector Type | Screw Type-90° | Spring Clamp Type-180° | Screw Type-180° |
| Wire Exit | 180° | 180° | 180° |
| Pitch | 3.81mm | 3.81mm | 3.81mm |
| Screw Size | M2 | N/A | M2 |
| Recommended Screw torque | <1.77 lb·in (0.2 N·m) | N/A | <1.77 lb·in (0.2 N·m) |
| Screwdriver Blade Width | 2.5mm | 2.5mm | 2.5mm |
| Wire Gauge (Single Wire) | 28-16 AWG | 28-18 AWG | 30-16 AWG |
| Wire Gauge (Two Wires) | 28-18 AWG | 30-20 AWG (Dual Wire Ferrule Required) | 30-18 AWG |
| Wire Strip Length | 0.24in (6mm) | 0.35in (9mm) | 0.26in (6.5mm) |
| Equiv. Dinkle part # | EC381V-10P-BK | ESC381V-10-BK | EC381F-10P-BK |