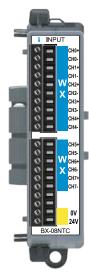
| General Specifications    |   |  |  |  |
|---------------------------|---|--|--|--|
| Operating Temperature     | 0° to 60°C (32° to 140°F)   |  |  |  |
| Storage Temperature       | -20° to 70°C (-4° to 158°F)   |  |  |  |
| Humidity                  | 5 to 95% (non-condensing)   |  |  |  |
| Environmental Air         | No corrosive gases permitted  |  |  |  |
| Vibration                 | IEC60068-2-6 (Test Fc)  |  |  |  |
| Shock                     | IEC60068-2-27 (Test Ea)   |  |  |  |
| Enclosure Type            | Open Equipment  |  |  |  |
| Agency Approvals          | UL61010-2-201 file E139594, Canada & USA<br>CE (Safety: EN61010-2-201 and<br>Immunity: EN61131-2: 2007) |  |  |  |
| Noise Immunity            | NEMA ICS3-304   |  |  |  |
| EU Directive              | See the "EU Directive" topic in the BRX Help File.  |  |  |  |
| Weight                    | 98g (3.5 oz)  |  |  |  |
| Heat Dissipation          | 0.8W  |  |  |  |
| Software Version Required | Do-more! Designer Version 2.3, or later.  |  |  |  |

| *Meets EMC and Safet | v requirements | See the D O C | for details |
|----------------------|----------------|---------------|-------------|
|                      |                |               |             |

| Thermistor Input Specifications |  |  |  |  |  |
|---------------------------------|--|--|--|--|--|
| Input Channels                  | 8 Single Ended   |  |  |  |  |
| Commons                         | 0  |  |  |  |  |
| Resolution                      | 16-bit, ±0.1°C or °F (up to 100Hz filter)  |  |  |  |  |
| Thermistor Input Ranges         | 2252 -40°C to 150°C (-40°F to 302°F)<br>10K-AN Type 3 -40°C to 150°C (-40°F to 302°F)<br>10K-CP Type 2 -40°C to 150°C (-40°F to 302°F)<br>5K -40°C to 150°C (-40°F to 302°F)<br>3K -40°C to 150°C (-40°F to 302°F)<br>1.8K -40°C to 150°C (-40°F to 302°F) |  |  |  |  |
| Thermistor Linearization        | Automatic  |  |  |  |  |
| Excitation Current (all ranges) | 10uA - 210uA autoscaling   |  |  |  |  |
| Accuracy vs. Temperature        | ±10ppm per °C (maximum)  |  |  |  |  |
| Full Scale Calibration          | ±1°C   |  |  |  |  |
| Offset Calibration Error        | ±1°C   |  |  |  |  |
| Linearity Error (end to end)    | Non-Linear   |  |  |  |  |
| Maximum Inaccuracy              | 1.0C @ 16.7Hz<br>2.5C @ 470Hz  |  |  |  |  |
| Warm-up Time                    | 30 Minutes for ±1°C Repeatability  |  |  |  |  |
| Sample Duration                 | 120ms@16.7Hz<br>4ms @ 470Hz  |  |  |  |  |
| All Channel Update Rate         | 2.2 s @16.7 Hz   |  |  |  |  |
| Open Circuit Detection Time     | Within 2s @ 16.7 Hz  |  |  |  |  |
| Common Mode Rejection           | 100dB DC<br>100dB @ 50/60Hz  |  |  |  |  |
| Absolute Maximum Ratings        | Fault protected input, ±50V  |  |  |  |  |
| Conversion Method               | Sigma-Delta  |  |  |  |  |
| Backplane Power Consumption     | 0.1W   |  |  |  |  |
| External DC Power Required      | Class 2 or LPS power supply<br>24VDC (±20%)<br>25mA  |  |  |  |  |

# AUTOMATION DIRECT EXPANSION Module





### **BX-08NTC**

#### **Thermistor Expansion Module**

8-ch, 16-bit

I/O Terminal Blocks included. (See Terminal Block Connector Spec.table inside). Not compatible with the ZIPLink Wiring System

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-08NTC



#### IMPORTANT!



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

| Document Name | Edition/Revision | Date      |
|---------------|------------------|-----------|
| BX-08NTC      | 1st Ed. RevA     | 11/3/2020 |

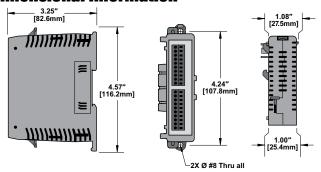
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| Terminal Block Connector Specifications |                          |                        |                          |  |  |
|---|--------------------------|------------------------|--------------------------|--|--|
| Part Number                             | BX-RTB10<br>(Included)   | BX-RTB10-1*            | BX-RTB10-2*              |  |  |
| Connector Type                          | Screw Type-90°           | Spring Clamp Type-180° | Screw Type-180°          |  |  |
| Pitch                                   | 3.81mm                   | 3.81mm                 | 3.81mm                   |  |  |
| Recommended<br>Screw torque             | <1.77 lb·in<br>(0.2 N·m) | N/A                    | <1.77 lb·in<br>(0.2 N·m) |  |  |
| Screwdriver<br>Blade Width              | 2.5mm                    | 2.5mm                  | 2.5mm                    |  |  |
| Equiv. Dinkle part #                    | EC381V-10P-BK            | ESC381V-10-BK          | EC381F-10P-BK            |  |  |

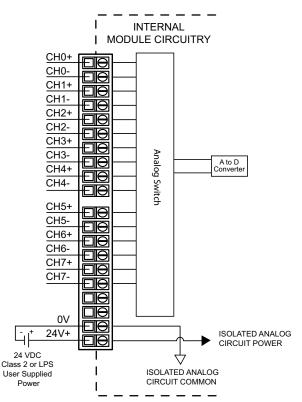
<sup>\*</sup>Sold separately

# Module Installation 1 To Install, remove disengagement plungers at top and bottom of module Align expansion connectors, insert, and listen for "Click" as the lock engages

#### **Dimensional Information**



## I/O Wiring Terminal Block Input Wiring



# I/O Wiring Thermistor Input Circuit

