

## Output Specifications

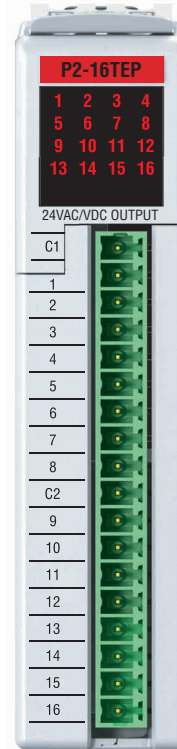
Outputs per Module	16
Rated Voltage	24 VAC / 24 VDC
Operating Voltage Range	21.6–26.4 VAC / VDC
AC Frequency	47–63 Hz
Output Type	SSR
Maximum Output Current	0.5A @ 40 °C, 0.3A @ 60 °C <sup>1</sup>
Minimum Load Current	10 mA
Maximum Leakage Current	1 µA
On Voltage Drop	0.3V
Maximum Inrush Current	1.56A
OFF to ON Response	2.5 ms
ON to OFF Response	0.5 ms
Status Indicators	Logic Side (16 points)
Commons	2 Isolated (8 point / common)
Protection Circuit	Not built into module. Install protection elements such as an external fuse. 10A Max
Fault Protection	Current Limited > 1.56A, Thermal Shutdown

1. See P2000 User Manual for Temperature Derating Chart for Inputs and Outputs.

## Channel Status

Fault Condition	Output Status	Operation to Reset Fault
Overload Current or Over Temperature*	Output On, No Output	Remove Fault Condition Reduce Load Current

\*Output will auto recover once the fault condition is removed.



## P2-16TEP AC/DC Protected Output

The P2-16TEP AC/DC Protected Output Module provides sixteen 24VAC/VDC fault protected outputs for use with the Productivity2000 System.

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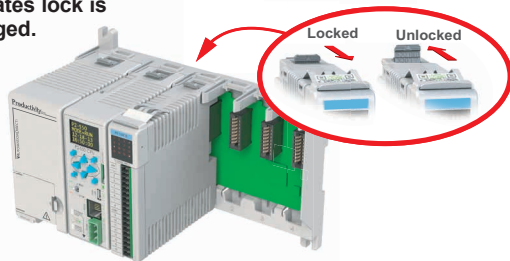
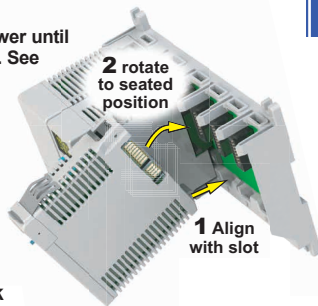
Terminal Block sold separately (see wiring options on page 3).

# Module Installation

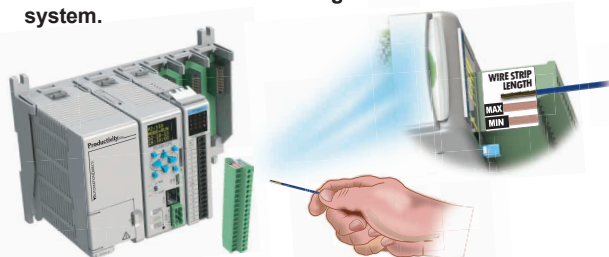
**WARNING:** Do not apply field power until the following steps are completed. See hot-swapping procedure for exceptions.

**Step One:** Align module catch with base slot and rotate module into connector.

**Step Two:** Pull top locking tab toward module face. Click indicates lock is engaged.



**Step Three:** Attach field wiring using the removable terminal block or ZIPLink wiring system.



# QR Code



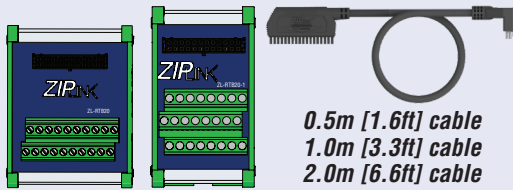
**Caution:** If possible, remove field power prior to proceeding. If not, then **EXTREME** care **MUST** be taken to prevent damage to the module, or even personal injury due to a short circuit from the live terminal block.

## Important Hot-Swap Information

**The Productivity2000 supports hot-swap!** Individual modules and entire remote base groups can be taken offline, removed, and replaced while the rest of the system continues controlling your process. Before attempting to use the hot-swap feature, be sure to read the hot-swap topic in the programming software's help file or our online documentation at [AutomationDirect.com](http://AutomationDirect.com) for details on how to plan your installation for use of this powerful feature.

# Wiring Options

## 1 ZIPLink Feed Through Modules and Cables<sup>1</sup>



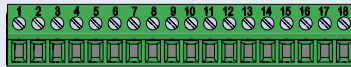
ZL-RTB20  
ZL-RTB20-1  
  
ZL-P2-CBL18  
ZL-P2-CBL18-1  
ZL-P2-CBL18-2

## 2 Terminal Block with pigtail cable



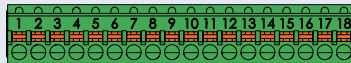
ZL-P2-CBL18-1P  
ZL-P2-CBL18-2P

## 3 Screw Terminal Block only



P2-RTB  
(Quantity 1)

## 4 Spring Clamp Terminal Block only



P2-RTB-1  
(Quantity 1)

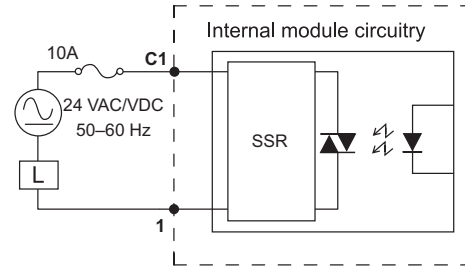
## 5 Accessories<sup>2</sup>



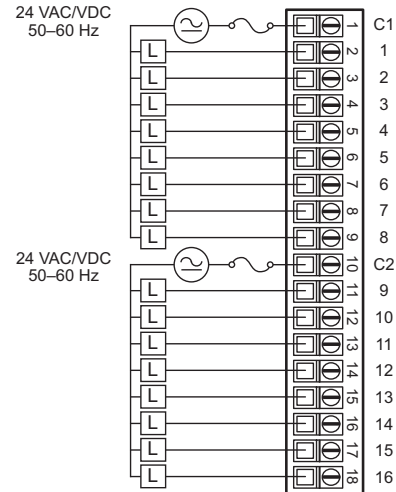
ZL-RTB-COM  
  
TW-SD-SL-1  
  
TW-SD-MSL-1

1. Cable + ZIPLink Module = Complete System
2. ZL-RTB-COM provides a common connection point for power or ground

# Schematic and Wiring Diagram



EXTERNAL FUSE-  
NOT BUILT INTO MODULE  
INSTALL EXTERNAL FUSE (10A MAX)



**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.

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## Removable Terminal Block Specifications

Part Number	P2-RTB	P2-RTB-1
Number of Positions	18 Screw Terminals	18 Spring Clamp Terminals
Wire Range	30–16 AWG [0.051–1.31mm <sup>2</sup> ] Solid / Stranded Conductor 3/64in [1.2mm] Insulation Maximum 1/4in [6–7mm] Strip Length	28–16 AWG [0.081–1.31mm <sup>2</sup> ] Solid / Stranded Conductor 3/64in [1.2mm] Insulation Maximum 19/64in [7–8mm] Strip Length
Conductors	"USE COPPER CONDUCTORS, 75°C" or Equivalent.	
Screw Driver Width	0.1 inch [2.5mm] Maximum*	
Screw Size	M2	N/A
Screw Torque	2.5 lb-in [0.28 N-m]	N/A

\*Recommended Screwdriver TW-SD-MSL-1

## General Specifications

Operating Air 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)
Altitude	2,000 meters max
Pollution Degree	2
Environmental Air	No corrosive gases permitted
Vibration	IEC60068-2-6 (Test Fc)
Shock	IEC60068-2-27 (Test Ea)
Overvoltage Category	II
Field to Logic Side Isolation	1750 VDC applied for 5 seconds, 420 VDC applied for 1 minute
Insulation Resistance	>10 MΩ @ 500 VDC
Heat Dissipation	4200 mW
Enclosure Type	Open Equipment
Module Keying to Backplane	Electronic
Module Location	Any I/O slot in a Productivity2000 System.
Field Wiring	Use <b>ZIPLink</b> Wiring System or removable terminal block (sold separately). See "Wiring Options" on page 3.
Connector Type (sold separately)	18 position removable terminal block
Weight	102.2g [3.6 oz]
Agency Approvals	UL 61010-1 and UL 61010-2-201 File E139594, Canada and USA CE (EN 61131-2 EMC, EN 61010-1 and EN 61010-2-201 Safety)*

\*See CE Declaration of Conformity for details.

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