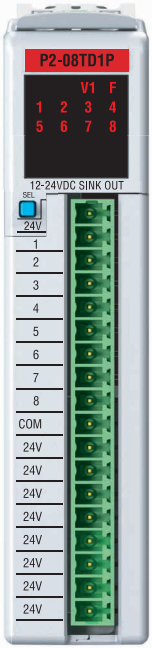
Output Specifications

Outputs per Module	8 sinking
Voltage Rating	12–24 VDC
Operating Voltage Range	10.2–26.4 VDC
Maximum Output Current	0.25 A continuous
On Voltage Drop	0.5 VDC
Maximum Inrush Current	Self-limited
OFF to ON Response	0.5 ms
ON to OFF Response	0.5 ms
Overcurrent Trip	0.6 A min., 1.2 A max. > 50ms duration*
Minimum Load Current to Avoid Open Load Fault Detection	113µA
Maximum Leakage Current	135µA 10.2–26.4 VDC
Over Temperature Shutdown	Independent to each output
Load Resistance to Avoid Open Load Fault Detection	<58kΩ
Status Indicators	Logic Side (8 points)
External 24V Error Indicator	Logic Side (1 points)
Fault Condition Indicator	Logic Side (8 points)
Commons	1
Fuses	None
External DC Power Required	24VDC @ 30mA

*Rev B2 and higher.



P2-08TD1P Sinking Protected DC Output

The P2-08TD1P DC Output Module provides eight 12–24 VDC sinking outputs with short-circuit and overload protection for use with the Productivity2000 System.

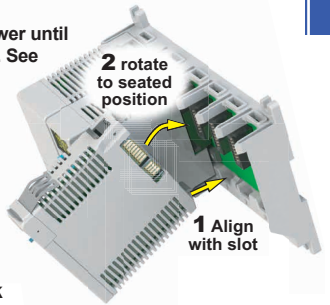
Document Name	Edition/Revision	Date
P2-08TD1P-DS	4th Ed.	9/5/2019

Terminal Block sold separately, (see wiring options on page 2).

Warranty: Thirty-day money-back guarantee. Two-year limited replacement. (See www.productivity2000.com for details).

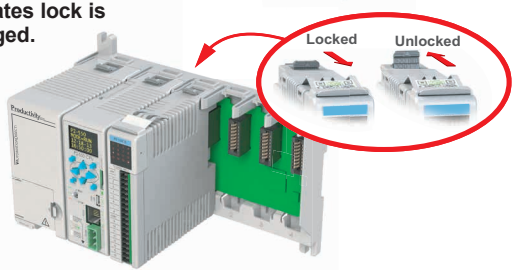
Module Installation

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

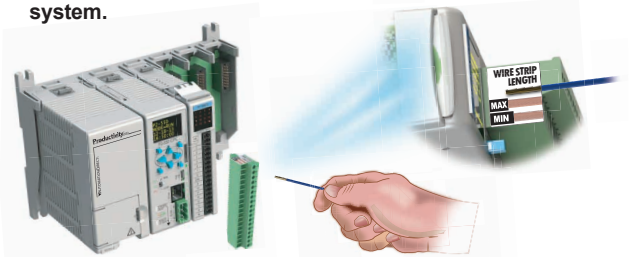


Step One: Align module catch with base slot and rotate module into connector.

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

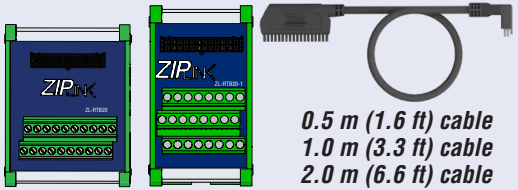


Step Three: Attach field wiring using the removable terminal block or *ZIP*Link wiring system.



Wiring Options

1 ***ZIP*Link Feed Through *Modules and Cables*[1]**



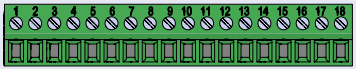
0.5 m (1.6 ft) cable — ZL-P2-CBL18
1.0 m (3.3 ft) cable — ZL-P2-CBL18-1
2.0 m (6.6 ft) cable — ZL-P2-CBL18-2

ZL-RTB20
ZL-RTB20-1

2 ***Terminal Block with pigtail cable***

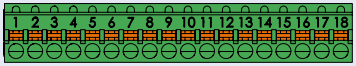
1.0 m (3.3 ft) cable — ZL-P2-CBL18-1P
2.0 m (6.6 ft) cable — ZL-P2-CBL18-2P

3 ***Screw Terminal Block only***



P2-RTB
(Quantity 1)

4 ***Spring Clamp Terminal Block only***



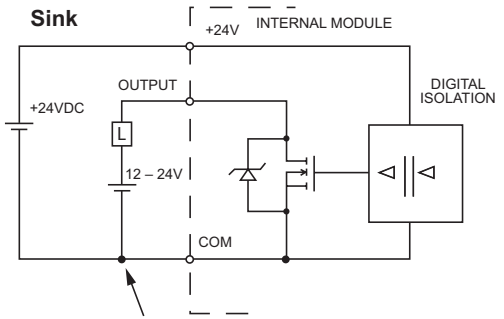
P2-RTB-1
(Quantity 1)

5 ***Accessories*[2]**

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

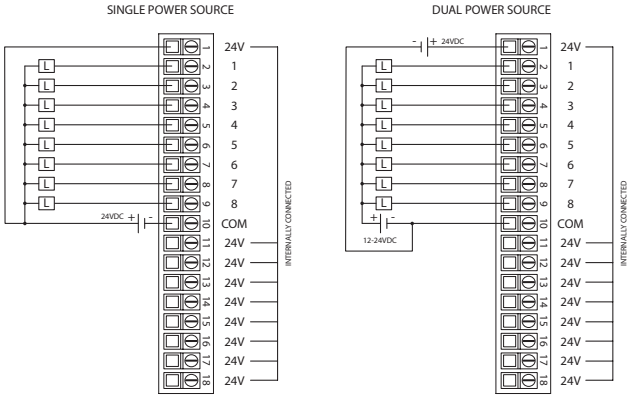
1.Cable + ***ZIP***Link Module = Complete System
2. ZL-RTB-COM provides a common connection point for power or ground

Wiring Diagram and Schematic



COMs of both Power Supplies are connected.

NOTE: If two separate power supplies are used to supply module control logic and output, grounds from both power supplies must be connected. For testing outputs, see note in P2-USER-M manual under P2-08TD1P wiring.



QR Code

Use any QR Code reader application to display the module's product insert.

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 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 for details on how to plan your installation for use of this powerful feature.

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.

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 (0.051–1.31 mm²) Solid / Stranded Conductor 3/64 in. (1.2 mm) Insulation Maximum 1/4 in. (6–7 mm) Strip Length	28–16 AWG (0.081–1.31 mm²) Solid / Stranded Conductor 3/64 in. (1.2 mm) Insulation Maximum 19/64 in. (7–8 mm) Strip Length
Conductors	"USE COPPER CONDUCTORS, 75°C" or Equivalent.	
Screw Driver Width	0.1 inch (2.5 mm) Maximum*	
Screw Size	M2	N/A
Screw Torque	2.5 lb·in (0.28 N·m)	N/A

*Recommend Screw Driver TW-SD-MSL-1

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)
Field to Logic Side Isolation	1800VAC applied for 1 second
Insulation Resistance	>10MΩ @ 500VDC
Heat Dissipation	1800mW
Enclosure Type	Open Equipment
Module Keying to Backplane	Electronic
Module Location	Any I/O slot in any Productivity2000 System.
Field Wiring	Use ***ZIP***Link Wiring System or removable terminal block (not included). See "Wiring Options" on page 2.
EU Directive	See the "EU Directive" topic in the Productivity Suite Help File. Information can also be obtained at: www.productivity2000.com
Connector Type (not included)	18-pin Removable Terminal Block
Weight	97.6 g (3.4 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)*

*Meets EMC and Safety requirements.

LED Status

Fault Condition	Fault Status Indication	Operation to Reset Fault
Missing External 24VDC	V1 LED is ON	Apply external 24 VDC
Open Load (Note 1)	F LED is ON (Note 2)	Connect the load
Over Temperature or Over Load Current		Turn the output OFF or cycle power

Note 1: Open Load Fault is always enabled, but is only valid when output is OFF. If Open Load Fault happens while output is ON, fault will not appear until you turn OFF output.

Note 2: The SEL button cycles between the output status and fault status. If the "F" LED is OFF the numbered LEDs are showing output status. If the "F" LED is ON the numbered LEDs are showing fault status of each output. The "V1" LED is independent of fault or output display.