### **Output Specifications Output Channels** 8 Rated Voltage 24 VDC Operating Voltage Range 21.6-26.4 VDC Output Type Sourcina Maximum Output Current 0.25 A Maximum Inrush Current Self-limited On Voltage Drop 0.7 VDC OFF to ON Response $0.5 \, \mathrm{ms}$ 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 113µA Fault Detection Maximum Leakage Current 160µA @ 21.6-26.4 VDC Over Temperature Shutdown Independent to each output Load Resistance to Avoid Open Load <58kO Fault Detection Status Indicators Logic Side (8 points) External 24V Error Indicator Logic Side (1 point) Fault Condition Indicator Logic Side (8 points) Commons 9 (non-isolated) Recommended External Fuse None External Power Supply Required 24VDC @ 30mA

Document Name	Edition/Revision	Date
P2-08TD2P-DS	4th Ed.	9/5/2019

Copyright 2016, AutomationDirect.com Incorporated/All Rights Reserved Worldwide

## VAUTOMATIONDIRECTS Productivity2000



### P2-08TD2P Sourcing Protected DC Output

The P2-08TD2P DC Output Module provides eight 24 VDC sourcing outputs with short-circuit and overload protection for use with the Productivity2000 System.

Output Specifications	1
Module Installation	
Wiring Options	2
Wiring Diagram and Schematic	3
QR Code	3
Hot Swap Information	3
Warning	4
Removable Terminal Block Specifications	4
General Specifications	4
LED Status	4

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).

<sup>\*</sup>Rev C1 and higher.

### **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.



2 rotate

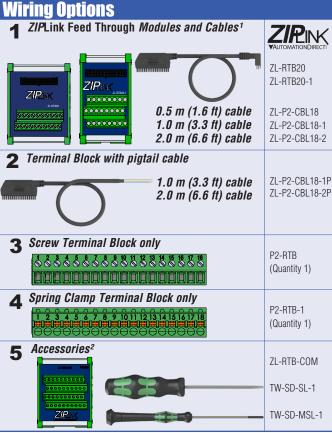
to seated

position

with slot

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





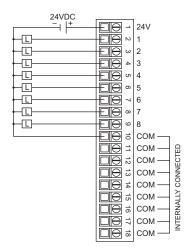
1.Cable + **ZIP**Link Module = Complete System

2. ZL-RTB-COM provides a common connection point for power or ground

### **Wiring Diagram and Schematic**

# Source INTERNAL MODULE DIGITAL ISOLATION +24VDC COM

NOTE: For testing outputs, see note in P2-USER-M manual under P2-08TD2P 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

<sup>\*</sup>Recommend Screw Driver TW-SD-MSI -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 @ 500 VDC Heat Dissipation 1800mW **Enclosure Type** Open Equipment

ı		, , , , , , , , , , , , , , , , , , , ,
	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 Position Removable Terminal Block
ľ	Weight	97.6g (3.4oz)

Any I/O slot in a Productivity2000 System

(not included). See "Wiring Options" on page 2.

Use **ZIP**Link Wiring System or removable terminal block

UL61010-1 and UL61010-2 File E139594, Canada & USA

CE\* (EN 61131-2 EMC, EN 61010-1 and EN 61010-2-201

Electronic

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

Safety)

Module Keying to Backplane

Module Location

Agency Approvals

Field Wiring

<b>LED Status</b>	<b>LED Status</b>			
Fault Condition	Fault Status Indication	Operation to Reset Fault		
Missing External 24VDC	V1 LED is ON	Apply external 24 VDC		
Open Load (Note 1)		Connect the load		
Over Temperature or Over Load Current	F LED is ON (Note 2)	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.