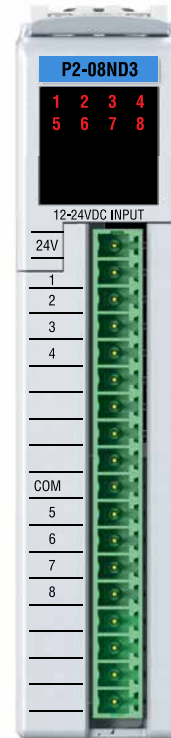


## Input Specifications

Inputs per Module	8 (Any input can be wired to sink or source current)
External Power Required	24VDC (-20% / +25%), 60mA
Input Voltage Range	12-24VDC ( $\pm 10\%$ ) $\leq$ External Voltage
Peak Voltage Range	26.4VDC
Input Current	7.5mA @ 12VDC 15mA @ 24VDC
Maximum Input Current @ temp.	20mA @ 60°C (26.4VDC)
Input Impedance	1.6K @ 24VDC
ON Voltage Level	$\leq 4$ VDC sourcing $\geq 12.5$ VDC sinking *See external power requirements for 12VDC inputs below
OFF Voltage Level	$> 6$ VDC sourcing $< 8.5$ VDC sinking
Maximum ON Current	4.2mA
Maximum OFF Current	3mA
OFF to ON Response	2ms Maximum, 1ms Typical
ON to OFF Response	2ms Maximum, 1ms Typical
Status Indicators	Logic Side (8 Points)
Commons	1 (8 points/common)

\*External Supply Voltage    On Voltage Level

19.2 VDC	>9.0 VDC
24.0 VDC	>11.3 VDC
26.4 VDC	>12.5 VDC



## P2-08ND3 Discrete Input

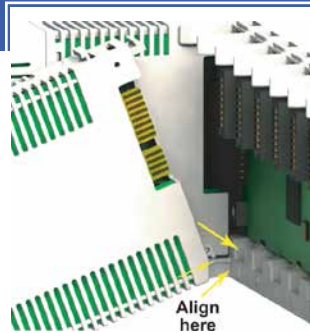
The P2-08ND3 Module provides eight inputs for switches and other devices connected to ground or supplies ranging from 12-24 VDC.

Input Specifications .....	1
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**Terminal Block sold separately, (see wiring options on page 2).**

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

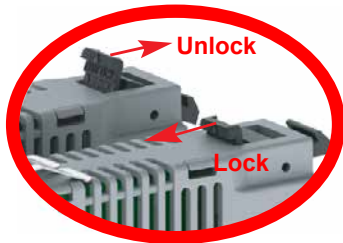
# Module Installation



**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 optional terminal block or ZIPLink wiring system.



# Wiring Options

## 1 ZIPLink Connection System

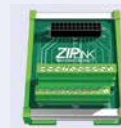
Cable + ZIPLink Module = Complete System

ZIPLink pre-wired terminal block cables



0.5m (1.6FT) cable  
1.0m (3.3FT) cable  
2.0m (6.6FT) cable

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



ZIPLink Modules

Feed through

ZL-RTB20



## 2

Terminal Block with pigtail cable



1.0m (3.3FT) cable  
2.0m (6.6FT) cable

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



## 3

Screw Terminal Block only



P2-RTB  
(Quantity 1)

## 4

Press Terminal Block only



P2-RTB-1  
(Quantity 1)

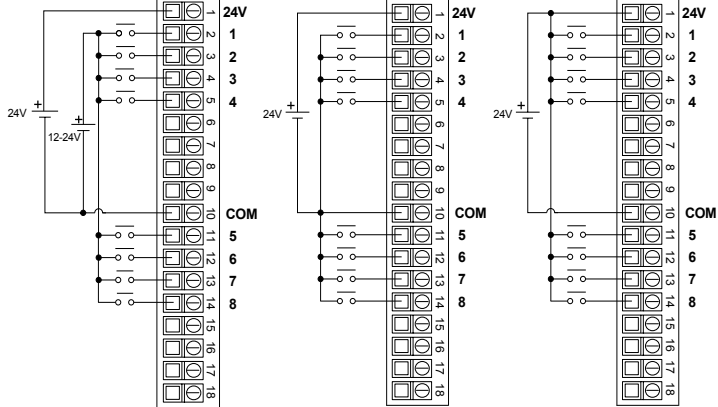
# Wiring Diagram and Schematic

# QR Code

Dual Supply Sinking

Single Supply Sourcing

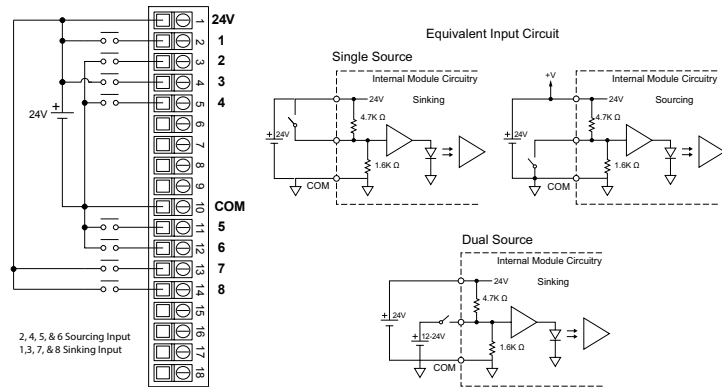
Single Supply Sinking



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

**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.

Single Supply Sinking and Sourcing



2, 4, 5, & 6 Sourcing Input  
1, 3, 7, & 8 Sinking Input

## Important Hot-Swap Information

**The Productivity2000 PAC supports hot-swap!**  
Individual modules can be taken offline, removed, and replaced while the rest of the PAC 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.

**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 Push Release Terminals
Wire Range	30-16 AWG (0.051 - 1.31 sq. mm) Solid / Stranded Conductor 3/64 in. (1.2 mm) Insulation Maximum 1/4 in. (6-7 mm) Strip Length	28-16 AWG (0.051 - 1.31 sq. mm) 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	1/8 inch (3.8 mm) Maximum	
Screw Size	M2	N/A
Screw Torque	2.5 lb-in (0.28 N-m)	N/A

## General Specifications

Surrounding 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)
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	6000mW
Enclosure Type	Open Equipment
Agency Approvals	UL508 file E139594, Canada & USA CE (EN61131-2*)
Module Keying to Backplane	Electronic
Module Location	Any I/O slot in a Productivity2000 System.
Field Wiring	Use ZIPLink 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: <a href="http://www.productivity2000.com">www.productivity2000.com</a>
Weight	100g (3.52 oz)

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

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Tech Support 770-844-4200

[www.productivity2000.com](http://www.productivity2000.com)