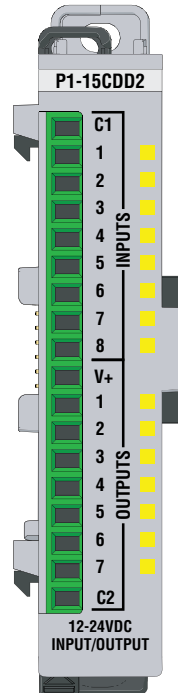


| Input Specifications           |                       |
|--------------------------------|-----------------------|
| <b>Inputs per Module</b>       | 8 (sink/source)       |
| <b>Rated Voltage</b>           | 12–24 VDC             |
| <b>Operating Voltage Range</b> | 10.4–28.8 VDC         |
| <b>Input Current</b>           | 8.4 mA @ 24VDC        |
| <b>Maximum Input Current</b>   | 11mA @ 28.8 VDC       |
| <b>Input Impedance</b>         | 3k $\Omega$           |
| <b>Maximum ON Current</b>      | 2.5 mA                |
| <b>Maximum OFF Current</b>     | 1.8 mA                |
| <b>ON Voltage Level</b>        | > 8VDC                |
| <b>OFF Voltage Level</b>       | < 6VDC                |
| <b>OFF to ON Response</b>      | 2ms max               |
| <b>ON to OFF Response</b>      |                       |
| <b>Status Indicators</b>       | Logic Side (8 points) |
| <b>Commons</b>                 | 1                     |

| Output Specifications                 |                                                                             |
|---------------------------------------|-----------------------------------------------------------------------------|
| <b>Outputs per Module</b>             | 7 (sourcing)                                                                |
| <b>Rated Voltage</b>                  | 12–24 VDC                                                                   |
| <b>Operating Voltage Range</b>        | 10.2–28.8 VDC                                                               |
| <b>Maximum Output Current</b>         | 1A continuous<br>4A temporary overload, 50ms<br>6A temporary overload, 10ms |
| <b>On Voltage Drop</b>                | 25mV                                                                        |
| <b>OFF to ON Response</b>             | 0.5 ms                                                                      |
| <b>ON to OFF Response</b>             | 0.5 ms                                                                      |
| <b>Status Indicators</b>              | Logic Side (7 points)                                                       |
| <b>Commons</b>                        | 1                                                                           |
| <b>Maximum Applicable Fuse</b>        | 8A                                                                          |
| <b>External Power Supply Required</b> | 12–24 VDC (-20% / +25%) @ 50mA                                              |



## P1-15CDD2 Input / Output

The P1-15CDD2 Input/Output Module provides eight 12–24 VDC inputs plus seven 12–24 VDC outputs that source up to 1A per output to loads connected to ground for use with the Productivity1000 system.

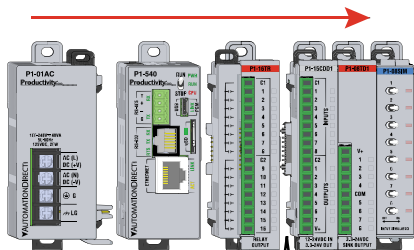
|                                         |   |
|-----------------------------------------|---|
| Input Specifications . . . . .          | 1 |
| Output Specifications . . . . .         | 1 |
| Module Installation . . . . .           | 2 |
| QR Code . . . . .                       | 2 |
| Wiring Options . . . . .                | 3 |
| Schematic & Wiring Diagram . . . . .    | 3 |
| General Specifications . . . . .        | 4 |
| Terminal Block Specifications . . . . . | 4 |
| Warning . . . . .                       | 4 |

**Terminal Block sold separately, (see wiring options on page 3).**  
 Warranty: Thirty-day money-back guarantee. Two-year limited replacement (See [www.productivity1000.com](http://www.productivity1000.com) for details).

# Module Installation

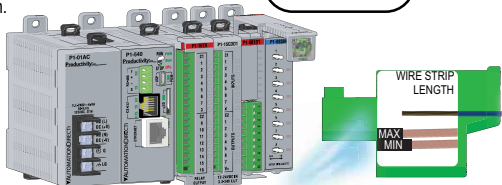
**WARNING:** Do not add or remove modules with field power applied.

**Step One:** With latch in "locked" position, align connectors on the side of each module and stack by pressing together. Click indicates lock is engaged.

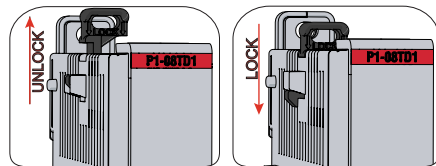


**Step Two:** Attach field wiring using the removable terminal block or ZIPLink wiring system.

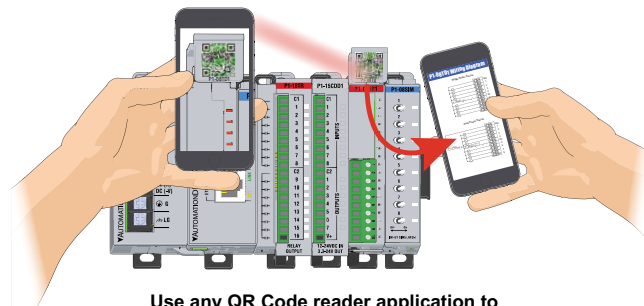
Check all latches are secure after modules are connected.



**Step Three:** To unstack modules, pull locking latch up into the unlocked position and then pull modules apart.



# QR Code



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

# P1-15CDD2 Schematic and Wiring Diagram

## Wiring Options

### 1 ZIPLink Connection System Cable + ZIPLink Module = Complete System

**ZIPLink pre-wired  
terminal block  
cables**

**ZIP LINK**  
AUTOMATIONDIRECT™

ZL-P1-CBL18

0.5 m (1.6 ft)  
cable

1.0 m (3.3 ft)  
cable

2.0 m (6.6 ft)  
cable

ZL-P1-CBL18-1

ZL-P1-CBL18-2

**ZIPLink Modules  
Feed through**

ZL-RTB20

ZL-RTB20-1

### 2 Terminal Block with pigtail cable

**ZIP LINK**  
AUTOMATIONDIRECT™

ZL-P1-CBL18-1P

1.0 m (3.3 ft)  
cable

2.0 m (6.6 ft)  
cable

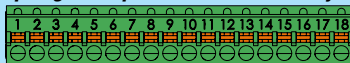
ZL-P1-CBL18-2P

### 3 Screw Terminal Block only



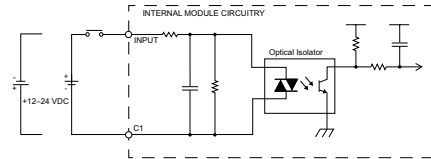
P2-RTB  
(Quantity 1)

### 4 Spring Clamp Terminal Block only

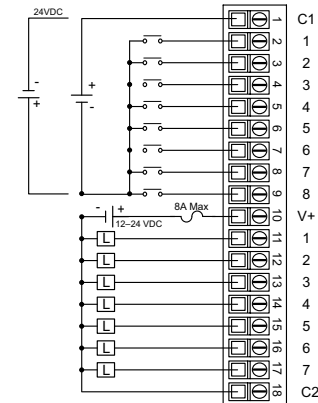
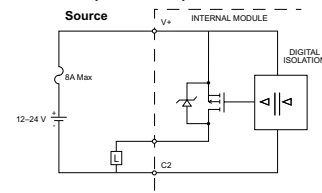


P2-RTB-1  
(Quantity 1)

#### Equivalent Input Circuit



#### Equivalent Output Circuit



**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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### Terminal Block Specifications

| Part Number         | P2-RTB                                                                                                                       | P2-RTB-1                                                                                                                       |
|---------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>Positions</b>    | 18 Screw Terminals                                                                                                           | 18 Spring Clamp Terminals                                                                                                      |
| <b>Wire Range</b>   | 30–16 AWG (0.051–1.31 mm²)<br>Solid / Stranded Conductor<br>3/64 in (1.2 mm) Insulation Max.<br>1/4 in (6–7 mm) Strip Length | 28–16 AWG (0.081–1.31 mm²)<br>Solid / Stranded Conductor<br>3/64 in (1.2 mm) Insulation Max.<br>19/64 in (7–8 mm) Strip Length |
| <b>Conductors</b>   | *USE COPPER CONDUCTORS, 75°C* or equivalent.                                                                                 |                                                                                                                                |
| <b>Screw Driver</b> | 0.1 in (2.5 mm) Maximum*                                                                                                     |                                                                                                                                |
| <b>Screw Size</b>   | M2                                                                                                                           | N/A                                                                                                                            |
| <b>Screw Torque</b> | 2.5 lb-in (0.28 N-m)                                                                                                         | N/A                                                                                                                            |

\*Recommended Screw Driver TW-SD-MSL-1

### General Specifications

|                                         |                                                                                                                                                                                  |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Operating Temperature</b>            | 0° to 60°C (32° to 140°F)                                                                                                                                                        |
| <b>Storage Temperature</b>              | -20° to 70°C (-4° to 158°F)                                                                                                                                                      |
| <b>Humidity</b>                         | 5 to 95% (non-condensing)                                                                                                                                                        |
| <b>Environmental Air</b>                | No corrosive gases permitted                                                                                                                                                     |
| <b>Vibration</b>                        | IEC60068-2-6 (Test Fc)                                                                                                                                                           |
| <b>Shock</b>                            | IEC60068-2-27 (Test Ea)                                                                                                                                                          |
| <b>Field to Logic Side Isolation</b>    | 1800VAC applied for 1 second                                                                                                                                                     |
| <b>Insulation Resistance</b>            | >10MΩ @ 500VDC                                                                                                                                                                   |
| <b>Heat Dissipation</b>                 | 1800mW                                                                                                                                                                           |
| <b>Enclosure Type</b>                   | Open Equipment                                                                                                                                                                   |
| <b>Module Location</b>                  | Any I/O position in a Productivity1000 System.                                                                                                                                   |
| <b>Field Wiring</b>                     | Use <b>ZIP</b> Link Wiring System or removable terminal block (sold separately). See "Wiring Options" on page 3.                                                                 |
| <b>EU Directive</b>                     | See the "EU Directive" topic in the Productivity Suite Help File. Information can also be obtained at:<br><a href="http://www.productivity1000.com">www.productivity1000.com</a> |
| <b>Connector Type (sold separately)</b> | 18 Position Removable Terminal Block                                                                                                                                             |
| <b>Weight</b>                           | 71g (2.5 oz)                                                                                                                                                                     |
| <b>Agency Approvals</b>                 | UL 61010-2-201 file E139594, Canada & USA<br>CE (EN61131-2 EMC and EN61010-2-201 Safety)*                                                                                        |

\*See CE Declaration of Conformance for details.

|               |                  |          |
|---------------|------------------|----------|
| Document Name | Edition/Revision | Date     |
| P1-15CDD2-DS  | 1st Edition      | 9/5/2017 |

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