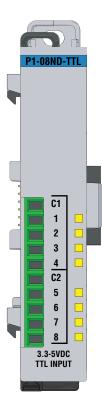
| Input Specifications          |                             |  |
|-------------------------------|-----------------------------|--|
| Inputs per Module             | 8 (sink/source)             |  |
| Rated Voltage                 | 3.3 – 5 VDC                 |  |
| Operating Voltage Range       | 3.3 – 5 VDC ±10%            |  |
| Input Current                 | 6mA @ 3.3 VDC<br>8mA @ 5VDC |  |
| Maximum Input Current         | 8mA @ 5.5 VDC               |  |
| Input Impedance               | 820Ω                        |  |
| Minimum ON Current            | 1.4 mA                      |  |
| Maximum OFF Current           | 1mA                         |  |
| ON Voltage Level              | > 2.2 VDC                   |  |
| OFF Voltage Level             | < 0.8 VDC                   |  |
| OFF to ON, ON to OFF Response | 2ms Maximum, 1ms Typical    |  |
| Status Indicators             | Logic Side (8 points)       |  |
| Commons                       | 2 (4 points/common)         |  |

# Productivity 1000



# P1-08ND-TTL Input

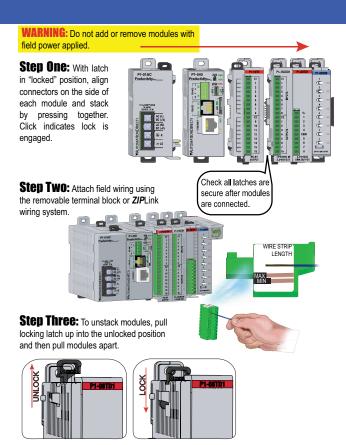
The P1-08ND-TTL Module provides eight inputs for TTL level devices for use with the Productivity1000 system.

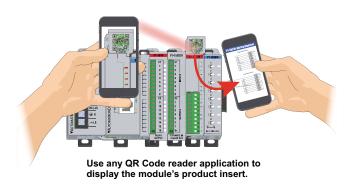
| nput Specifications          | ı |
|------------------------------|---|
| Module Installation          | 2 |
| QR Code                      | 2 |
| Viring Options               | 3 |
| Schematic & Wiring Diagram   | 3 |
| General Specifications       | 1 |
| erminal Block Specifications | 1 |
| Varning                      | 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 for details).

## **Module Installation**

# **QR Code**



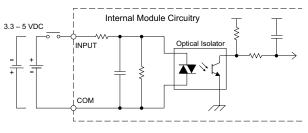


#### **Wiring Options** ZIPLink Feed Through Modules and Cables<sup>1</sup> ZIPINK VAUTOMATION DIRECT 7I -RTB20 ZL-RTB20-1 ZIRINK 0.5 m (1.6 ft) cable ZL-P1-CBL10 1.0 m (3.3 ft) cable ZL-P1-CBL10-1 0000000 2.0 m (6.6 ft) cable ZL-P1-CBL10-2 Terminal Block with pigtail cable ZL-P1-CBL10-1P 1.0 m (3.3 ft) cable ZL-P1-CBL10-2P 2.0 m (6.6 ft) cable 3 Screw Terminal Block only P1-10RTB (Quantity 1) **△** Spring Clamp Terminal Block only P1-10RTB-1 (Quantity 1) Accessories<sup>2</sup> ZL-RTB-COM TW-SD-SL-1 TW-SD-MSL-1

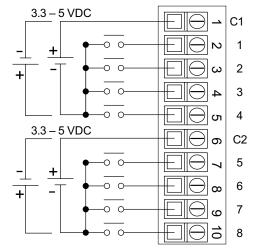
- 1. Cable + **ZIP**Link Module = Complete System
- 2. ZL-RTB-COM provides a common connection point for power or ground

# **P1-08ND-TTL Schematic and Wiring Diagram**

#### **Equivalent Input Circuit**



### Single Supply



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.

| Terminal Block Specifications |                                                                                                                              |                                                                                                                                |  |  |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--|--|
| Part Number                   | P1-10RTB                                                                                                                     | P1-10RTB-1                                                                                                                     |  |  |
| Positions                     | 10 Screw Terminals                                                                                                           | 10 Spring Clamp Terminals                                                                                                      |  |  |
| Wire Range                    | 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 |  |  |
| Conductors                    | "USE COPPER CONDUCTORS, 75°C" or equivalent.                                                                                 |                                                                                                                                |  |  |
| Screw Driver                  | 0.1 in (2.5 mm) Maximum*                                                                                                     |                                                                                                                                |  |  |
| Screw Size                    | M2                                                                                                                           | N/A                                                                                                                            |  |  |
| Screw Torque                  | 2.5 lb·in (0.28 N·m) N/A                                                                                                     |                                                                                                                                |  |  |

<sup>\*</sup>Recommended 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)                                                                                                    |  |  |
| 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                | Ш                                                                                                                            |  |  |
| Field to Logic Side<br>Isolation    | 1800VAC applied for 1 second                                                                                                 |  |  |
| Insulation Resistance               | >10MΩ @ 500VDC                                                                                                               |  |  |
| Heat Dissipation                    | 220mW                                                                                                                        |  |  |
| Enclosure Type                      | Open Equipment                                                                                                               |  |  |
| Module Location                     | Any I/O position in a Productivity1000 System.                                                                               |  |  |
| Field Wiring                        | Use <b>ZIP</b> Link Wiring System or removable terminal block (sold separately). See "Wiring Options" on page 3.             |  |  |
| Connector Type<br>(sold separately) | 10-Position Removable Terminal Block                                                                                         |  |  |
| Weight                              | 1.9 oz (55g)                                                                                                                 |  |  |
| Agency Approvals                    | UL 61010-1 and UL 61010-2-201 File E139594, Canada<br>& USA<br>CE (EN 61131-2 EMC, EN 61010-1 and EN 61010-2-201<br>Safety)* |  |  |

<sup>\*</sup>See CF Declaration of Conformance for details

| Document Name  | Edition/Revision | Date     |
|----------------|------------------|----------|
| P1-08ND-TTL-DS | 1st Edition      | 8/2/2023 |

Copyright 2018, AutomationDirect.com Incorporated/All Rights Reserved Worldwide