Output Specifications

Outputs per Module	15 sinking
Output Type	N-channel MOSFET, open drain
Rated Voltage	3.3–24 VDC
Operating Voltage Range	2.8–30 VDC
Maximum Output Current	1A per point / 8A per common
Minimum Load Current	1mA
Maximium Leakage Current	0.3 mA @ 30VDC
On Voltage Drop	0.18 VDC @ 1A
Maximum Inrush Current	4A for 40ms, 6A for 10ms
OFF to ON Response	≤0.5ms
ON to OFF Response	≤0.5ms
Status Indicators	Logic Side (15 points)
Commons	2 non-isolated
Recommended External Fuse	None
External Power Supply Required	12–24 VDC (-15% / +20%) @ 22mA
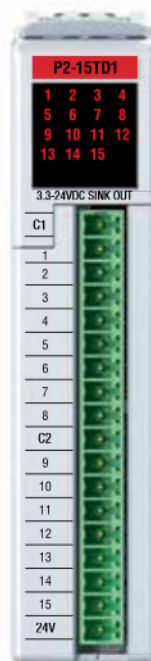
P2-15TD1 Sinking DC Output

The P2-15TD1 DC Output Module provides fifteen outputs that sink up to 1A per output from loads powered from 3.3–24 VDC supplies for use with the Productivity2000 System.

Terminal Block sold separately, (see wiring options on page 3).
Warranty: Thirty-day money-back guarantee. Two-year limited replacement. (See www.productivity2000.com for details).

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.

2 rotate to seated position

1 Align with slot

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

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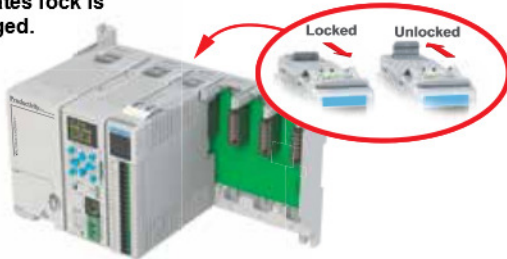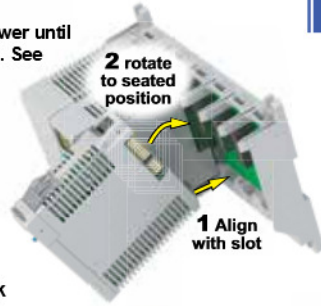
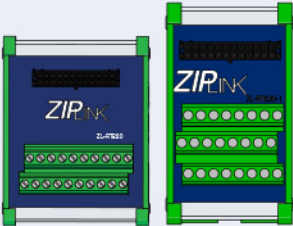**Step Three:** Attach field wiring using the removable terminal block or *ZIP*Link wiring system.

WIRE STRIP LENGTH
MAX
MIN

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.

Wiring Options

1 **ZIPLink Connection System**
Cable + *ZIP*Link Module = Complete System

*ZIP*Link pre-wired terminal block cables

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

ZIPLink Modules

Feed through	ZL-RTB20
	ZL-RTB20-1

Derating 0.5A/point

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)

Wiring Diagram and Schematic

Sink

INTERNAL MODULE
+12-24VDC

OUTPUT

DIGITAL ISOLATION

12-24VDC

L

COM

Single Power Source

Dual Power Source
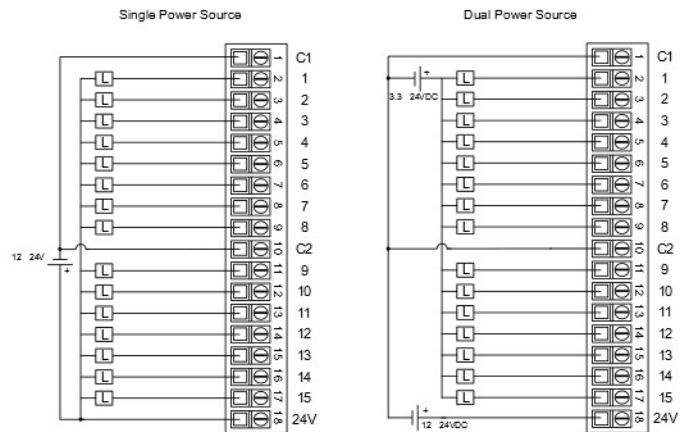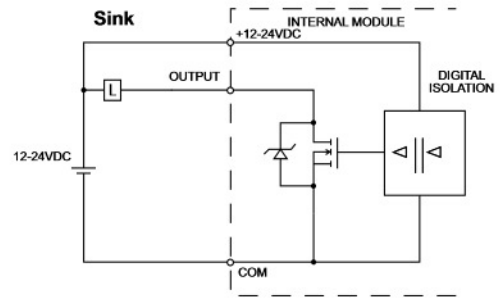
WARNING: To minimize the risk of potential safety problems, you should follow all applicable local and national codes that regulate the installation and operation of your equipment. These codes vary from area to area and it is your responsibility to determine which codes should be followed, and to verify 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.

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
Module Keying to Backplane	Electronic
Module Location	Any I/O slot in a Productivity2000 System.
Field Wiring	Use **ZIP**Link Wiring System or removable terminal block (not included). See "Wiring Options" on page 3.
EU Directive	See the "EU Directive" topic in the Productivity Suite Help File. Information can also be obtained at: www.productivity2000.com
Connector Type (sold separately)	18 Position Removable Terminal Block
Weight	100g (3.5oz)
Agency Approvals	UL61010-2-201 file E139594, Canada & USA CE (EMC: 61131-2*, SAFETY: EN61010-2-201)

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

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	1/8 inch (3.8 mm) Maximum	
Screw Size	M2	N/A
Screw Torque	2.5 lb-in (0.28 N·m)	N/A

Document Name	Edition/Revision	Date
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