

Output Specifications

Outputs per Module	32 sinking
Rated Voltage	12–24 VDC
Operating Voltage Range	10.2–28.8 VDC
Maximum Output Current	0.2 A per point, 1.6 A per Common ¹ @ 60°C 0.5 A per point, 2A per Common ¹ @ 40°C
Maximum Inrush Current	Self-Limited
On Voltage Drop	0.5 V @ 0.2 A 0.8 V @ 0.5 A
OFF to ON Response	≤0.5 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 Load Fault Detection	113µA
Maximum Leakage Current	135µA @ 10.2–26.4 VDC
Overtemperature Shutdown	Independent to each output
Load Resistance to Avoid Open Load Fault Detection	<58 kΩ
Status Indicators	Logic Side (16 points x 2)
External 24V Error Indicator	Logic Side (1 points)
Fault Condition Indicator	Logic Side (16 points x 2)
Commons per Module	4 (non-isolated)
Recommended External Fuse	None
External Power Supply Required	24VDC (-15% / +20%) @ 80mA

Note¹: Connect all commons: C1, C2, C3, C4, V1, V2, V3 and V4.

P2-32TD1P Sinking Protected Output

The P2-32TD1P DC Output Module provides thirty-two 12–24 VDC sinking outputs with short circuit and overload protection for use with Productivity2000 System.



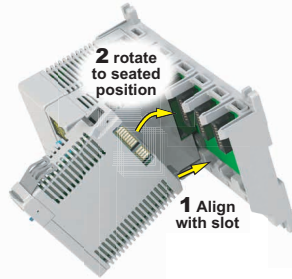
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Document Name	Edition/Revision	Date
P2-32TD1P-DS	7th Ed.	2/27/2023

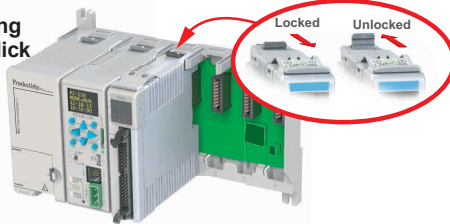
Module Installation

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 the removable terminal block or ZIPLink wiring system.



QR Code



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

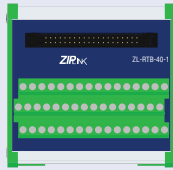
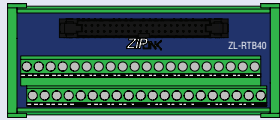
Caution: If possible, remove field power prior to proceeding. If not, then **EXTREME** care **MUST** be taken to prevent damage to the module, or even personal injury due to a short circuit from the live terminal block.

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.

Wiring Options

1 ZIPLink Feed Through Modules and Cables¹



ZL-RTB40
ZL-RTB40-1

2 ZIPLink Pre-wired Cables



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

ZL-CBL40
ZL-CBL40-1
ZL-CBL40-2

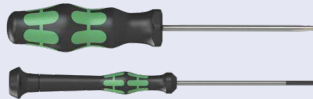
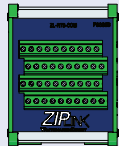
3 ZIPLink Pig Tail Cables



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

ZL-P3-CBL40-1P
ZL-P3-CBL40-2P

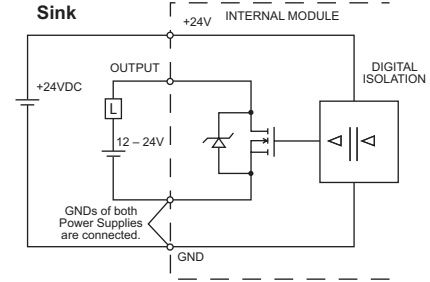
4 Accessories²



ZL-RTB-COM
TW-SD-SL-1
TW-SD-MSL-1

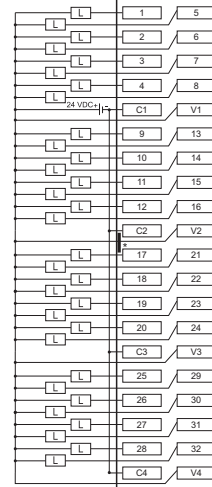
1. Cable + ZIPLink Module = Complete System
2. ZL-RTB-COM provides a common connection point for power or ground

Wiring Diagram & Schematic

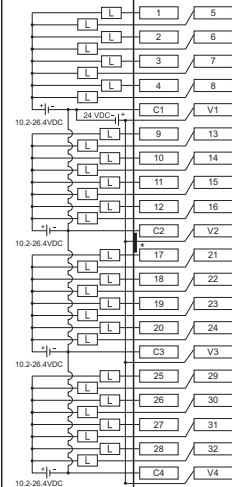


NOTE: If two separate power supplies are used to supply module control logic and output, grounds from both power supplies must be connected.

Single Power Source



Dual Power Source



*Denotes key location of all associated ZIPLink cables.

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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Connector Specifications

Connector Type	IDC style header with latch, Omron XG4A-4034
Number of Pins	40 point
Pitch	0.1 in (2.54 mm)

LED Status

Fault Condition	Fault Status Indication	Operation to Reset Fault
Missing External 24VDC	V1 LED is ON	Apply external 24VDC
Open Load (Note 1)	F LED is ON (Note 2)	Connect the load
Over Temperature or Over Load Current		Turn the output OFF or cycle power

LED Page Shifting

The "A" LED is ON when the LED states correspond to outputs/faults 1-16. The "B" LED is ON for outputs/faults 17-32.

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
Altitude	2,000 meters max
Pollution Degree	2
Vibration	IEC60068-2-6 (Test Fc)
Shock	IEC60068-2-27 (Test Ea)
Overvoltage Category	II
Field to Logic Side Isolation	1800VAC applied for 1 second
Insulation Resistance	>10MΩ @ 500VDC
Heat Dissipation	4000mW
Enclosure Type	Open Equipment
Module Keying to Backplane	Electronic
Module Location	Any I/O slot in a Productivity2000 System.
Field Wiring	Use ZIPLink Wiring System. See "Wiring Options" on page 3.
Weight	105g (3.7 oz)
Agency Approvals	UL61010-1 and UL61010-2-201 File E139594, Canada & USA CE (EN 61131-2 EMC, EN 61010-1 and EN 61010-2-201 Safety)*

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

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.