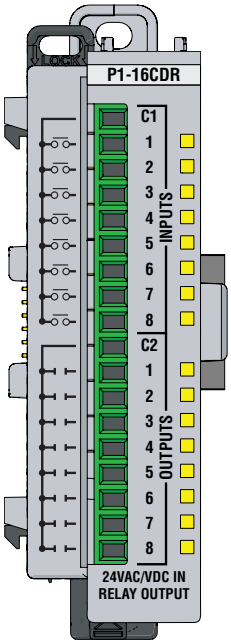
Input Specifications	
Inputs per Module	8 (sink/source)
Rated Voltage	24VAC/VDC
Operating Voltage Range	20.4–27.6 VAC/VDC, Max 27.6 VAC, 30VDC
AC Frequency	47–63 Hz
Input Current	8mA @ 24VAC/VDC
Maximum Input Current	10mA @ 27.6 VAC, 30VDC
Minimum ON Current	2.5 mA
Maximum OFF Current	0.5 mA
ON Voltage Level	>9.5 VDC, >8VAC
OFF Voltage Level	<4.5 VDC, <4VAC
OFF to ON Response	AC: 10ms DC: 6ms
ON to OFF Response	AC: 20ms DC: 10ms
Status Indicators	Logic Side (8 points)
Commons	1 (8 points/common)

Output Specifications	
Outputs per Module	8
Rated Voltage	6–30 VDC 6–120 VAC
Operating Voltage Range	5–30 VDC 5–144 VAC
Output Type	Relay, Form A (SPST)
AC Frequency	47–63 Hz
Maximum Output Current	1A / point, 8A / common for both AC and DC 1A / point, 8A / common for both is used with ***ZIP***Link Cable
Minimum Load Current	5mA @ 5VDC
Maximum Inrush Current	5A for 10ms
OFF to ON, ON to OFF Response	≤ 10 ms
Status Indicators	Logic Side (8 points)
Commons	1 (8 points/common)
Maximum Applicable Fuse	8A



P1-16CDR Discrete Input / Relay Output

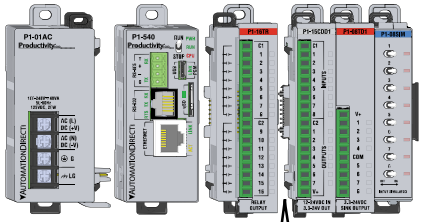
The P1-16CDR Discrete Input / Relay Output Module provides eight 24VAC/VDC inputs and eight relay outputs for use with the Productivity1000 system.

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

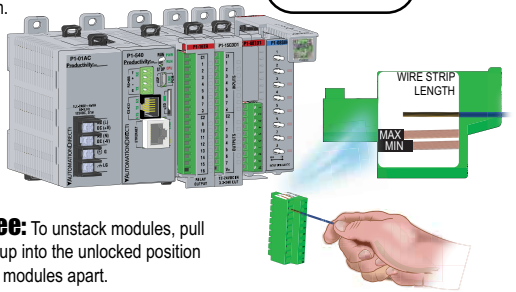
WARNING: Do not add or remove modules with field power applied.

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.

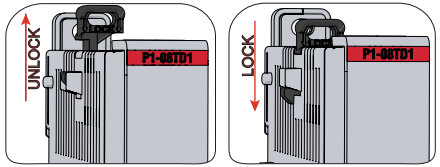


Check all latches are secure after modules are connected.

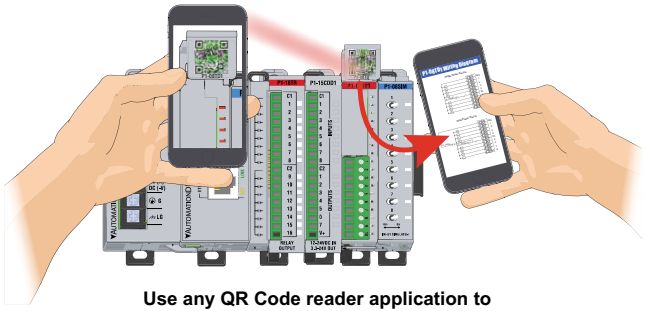
Step Two: Attach field wiring using the removable terminal block or ***ZIP***Link wiring system.



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



QR Code



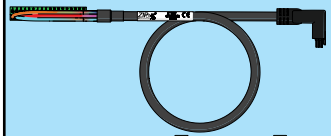
Use any QR Code reader application to display the module's product insert.

P1-16CDR Schematic and Wiring Diagram

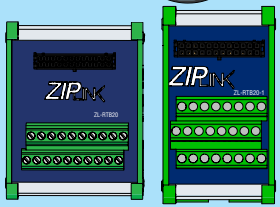
Wiring Options

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

ZIP*Link *pre-wired terminal block cables

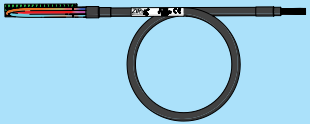


0.5 m (1.6 ft) cable	ZL-P1-CBL18
1.0 m (3.3 ft) cable	ZL-P1-CBL18-1
2.0 m (6.6 ft) cable	ZL-P1-CBL18-2



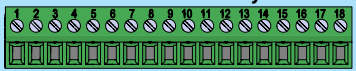
ZIP*Link *Modules Feed through	ZL-RTB20 ZL-RTB20-1

2 ***Terminal Block with pigtail cable***



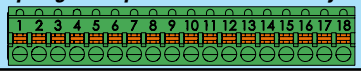
1.0 m (3.3 ft) cable	ZL-P1-CBL18-1P
2.0 m (6.6 ft) cable	ZL-P1-CBL18-2P

3 ***Screw Terminal Block only***



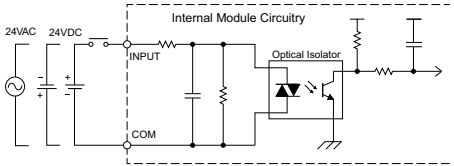
P2-RTB
(Quantity 1)

4 ***Spring Clamp Terminal Block only***

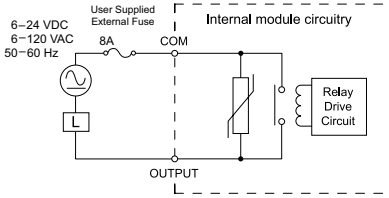


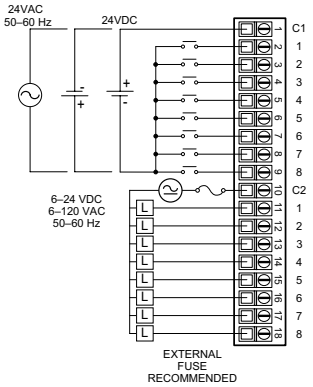
P2-RTB-1
(Quantity 1)

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 .

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Terminal Block Specifications		
Part Number	***P2-RTB***	***P2-RTB-1***
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 Max. 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 Max. 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

*Recommended Screw Driver TW-SD-MSL-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)
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	2730mW
Enclosure Type	Open Equipment
Module Location	Any I/O position in a Productivity1000 System.
Field Wiring	Use ***ZIP***Link Wiring System or removable terminal block (sold separately). 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.productivity1000.com
Connector Type (sold separately)	18 Position Removable Terminal Block
Weight	88g (3.2 oz)
Agency Approvals	UL 61010-2-201 file E139594, Canada & USA CE (EN61131-2 EMC and EN61010-2-201 Safety)*

*See CE Declaration of Conformance for details.

Document Name	Edition/Revision	Date
P1-16CDR-DS	2nd Edition	2/13/2018