Output Specifications

Output Specifications	
Outputs per Module	16
Rated Voltage	6.25–30 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	2A / point, 8A / common for both AC and DC 2A / point, 4A / common if 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 (16 points)
Commons	2 isolated (8 points/common)
Maximum Applicable Fuse	8A

Typical Relay Life

Voltage & Type of Load	Operations at 1A Load Current
30VDC Resistive	100,000
30VDC Solenoid	100,000
120VAC Resistive	100,000
120VAC Solenoid	100,000

AUTOMATIONDIRECT.com
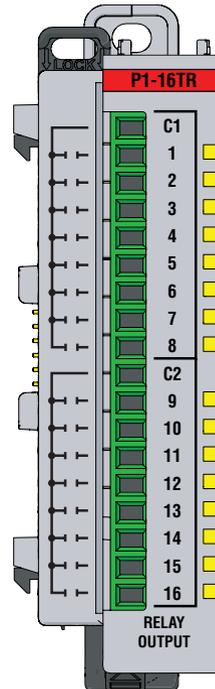
Productivity®1000

P1-16TR Relay Output

The P1-16TR Relay Output Module provides sixteen 2A outputs with two isolated commons 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

QR Code

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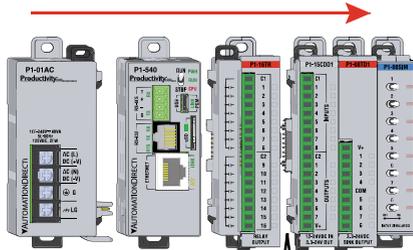
Step Two: Attach field wiring using the removable terminal block or *ZIP*Link wiring system.

Check all latches are secure after modules are connected.

WIRE STRIP LENGTH

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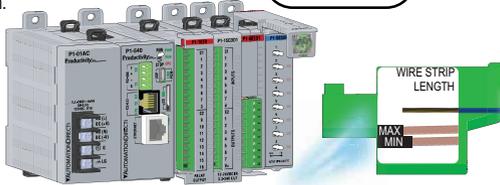
Step Three: To unstack modules, pull locking latch up into the unlocked position and then pull modules apart.

UNLOCK

P1-08TD1

LOCK

P1-08TD1
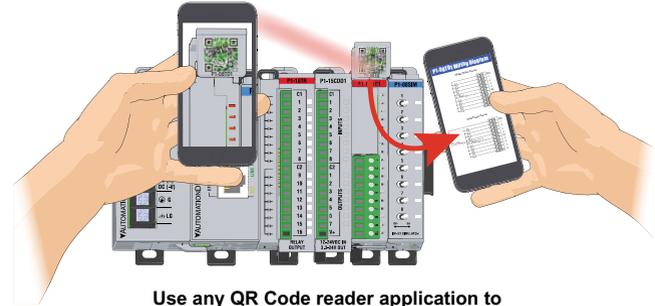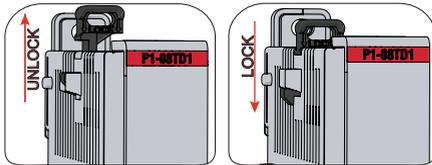
Use any QR Code reader application to display the module's product insert.

Wiring Options

1 ***ZIP*Link Feed Through *Modules and Cables*[1]**	**ZIP**LINK ▼AUTOMATIONDIRECT®
	ZL-RTB20 ZL-RTB20-1
0.5 m (1.6 ft) cable **1.0 m (3.3 ft) cable** **2.0 m (6.6 ft) cable**	ZL-P1-CBL18 ZL-P1-CBL18-1 ZL-P1-CBL18-2
2 *Terminal Block with pigtail cable*	
1.0 m (3.3 ft) cable **2.0 m (6.6 ft) cable**	ZL-P1-CBL18-1P ZL-P1-CBL18-2P
3 *Screw Terminal Block only* 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	P2-RTB (Quantity 1)
4 *Spring Clamp Terminal Block only* 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	P2-RTB-1 (Quantity 1)
5 *Accessories*[2]	ZL-RTB-COM TW-SD-SL-1 TW-SD-MSL-1
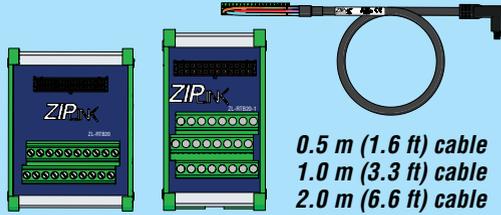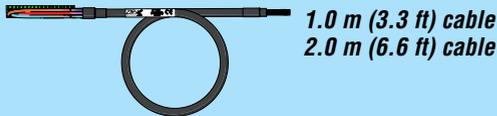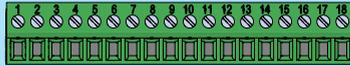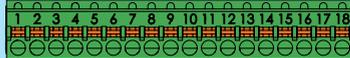
1.Cable + ***ZIP*Link Module = Complete System**
2. ZL-RTB-COM provides a common connection point for power or ground

P1-16TR Schematic and Wiring Diagram

6–24 VDC
6–120 VAC
50–60 Hz

User Supplied
External Fuse

Internal module circuitry

8A Max   COM

L

OUTPUT

Relay
Drive
Circuit
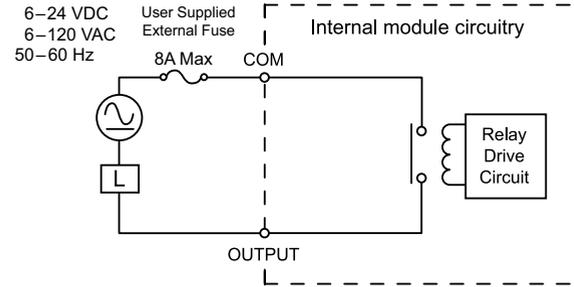
EXTERNAL
FUSE
RECOMMENDED

6–24 VDC
6–120 VAC
50–60 Hz

8A Max

6–24 VDC
6–120 VAC
50–60 Hz

Terminal	Label
1	C1
2	1
3	2
4	3
5	4
6	5
7	6
8	7
9	8
10	C2
11	9
12	10
13	11
14	12
15	13
16	14
17	15
18	16

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 Circuit Isolation	1800VAC applied for 1 second
Insulation Resistance	>10MΩ @ 500VDC
Heat Dissipation	3000mW
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	91g (3.2 oz)
Agency Approvals	UL 61010-1 and UL 61010-2-201 File E139594, Canada & USA CE (EN 61131-2 EMC, EN 61010-1 and EN 61010-2-201 Safety)*

*See CE Declaration of Conformance for details.