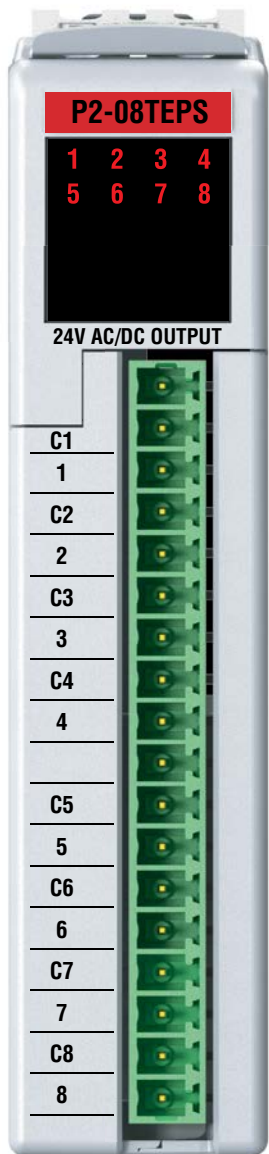


Relay Output Modules

P2-08TEPS \$160.00 AC Isolated Relay (SSR) Output

The P2-08TEPS Isolated solid-state relay (SSR) output module provides eight 24 VAC/VDC fault protected, isolated outputs for use with the Productivity2000 System.



Terminal block sold separately.



NOTE: The most recent Productivity Suite software and firmware versions may be required to support new modules and new features.

We recommend using prewired ZIPLink cables and connection modules. See Wiring Solutions. If you wish to hand-wire your module, a removable terminal block is sold separately. Order part number [P2-RTB](#) or [P2-RTB-1](#).



Output Specifications	
Outputs per Module	8
Voltage Rating	24 VAC / 24 VDC
Operating Voltage Range	21.6–26.4 VAC / VDC
AC Frequency	47–63 Hz
Output Type	SSR
Maximum Output Current	1A @ 40 °C, 0.5A @ 60 °C
Minimum Load	10 mA
Maximum Leakage Current	1 µA
On Voltage Drop	0.3 V
Maximum Inrush Current	1.56A
OFF to ON Response	2.5 ms
ON to OFF Response	0.5 ms
Status Indicators	Logic Side (8 points)
Commons	8 Isolated (1 point / commons)
Protection Circuit	Not built into module – Install external elements such as a fuse. (Max 1.6A)
Fault Protection	Current Limited > 1.56A, Thermal Shutdown

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	II
Field to Logic Side Isolation	1750 VDC applied for 5 second, 420 VDC applied for 1 minute
Insulation Resistance	>10 MΩ @ 500 VDC
Heat Dissipation	2200 mW
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 or removable terminal block (not included). See Wiring Solutions.
Connector Type (Sold separately)	18 position removable terminal block
Weight	62g (2.2 oz)
Agency Approvals	UL 61010-1 and UL 61010-2-201 File E139594, Canada and USA CE (EN 61131-2 EMC, EN 61010-1 and EN 61010-2-201 Safety)*

*Meets EMC and Safety requirements. See the Declaration of Conformity for details.

Channel Status		
Fault Condition	Output Status	Operation to Reset Fault
Overload Current or Over Temperature*	Output On, No Output	Remove Short Circuit, Reduce Load Current

*Output will auto recover once the fault condition is removed.

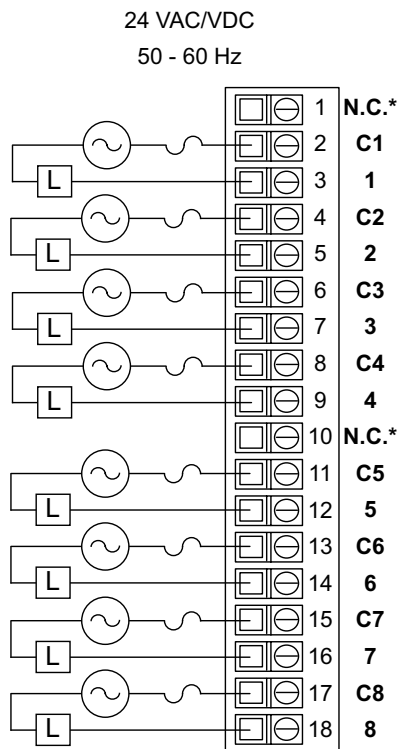
Relay Output Modules

P2-08TEPS (cont'd)

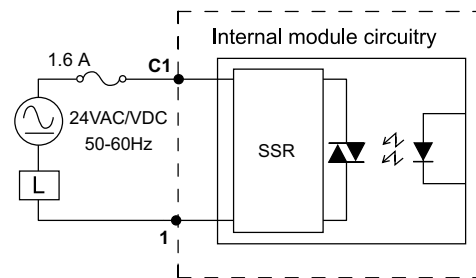
Removable Terminal Block Specifications		
Part Number	P2-RTB	P2-RTB-1
Number of positions	18 screw terminals	18 push release terminals
Wire Range	30–16 AWG (0.051–1.31mm ²) Solid/stranded conductor 3/64 in (1.2mm) insulation max. 1/4 in (6–7mm) strip length	28–16 AWG (0.081–1.31mm ²) Solid/stranded conductor 3/64 in (1.2mm) insulation max. 19/64 in (7–8mm) strip length
Conductors	USE COPPER CONDUCTORS, 75 °C or equivalent.	
Screw Driver Width	0.1in. (2.5mm) maximum	NA
Screw Size	M2	N/A
Screw Torque	2.5 lb·in (0.28 N·m)	N/A

* Recommended screw driver: [PIN TW-SD-MSL-1](#)

Wiring Diagrams



*N.C. = No Connection



I/O Modules

A variety of discrete, analog and specialty I/O modules are available for use in a Productivity2000 system. Specifications for each module are on the following pages.

A filler module is available for unused I/O module slots (part number [P2-FILL](#)).

Discrete Input Modules

Productivity2000 Discrete Input Modules			
Part Number	Number of Inputs	Description	Price
P2-08SIM	8	Input Simulator Module	\$69.00
P2-08ND3-1	8	Sinking/Sourcing 12–24 VDC	\$72.00
P2-16ND-TTL	16	Sinking/Sourcing	\$101.00
P2-16ND3-1	16	Sinking/Sourcing 24V AC/DC	\$100.00
P2-32ND3-1	32	Sinking/Sourcing 12–24 VDC	\$148.00
P2-08NE3	8	Sinking/Sourcing 24V AC/DC	\$59.00
P2-16NE3	16	Sinking/Sourcing 12–24 VDC	\$101.00
P2-32NE3	32	Sinking/Sourcing 24V AC/DC	\$148.00
P2-08NAS	8	AC Isolated 100-120 VAC	\$113.00
P2-16NA	16	AC 100-240 VAC	\$154.00

Specialty Modules

Productivity2000 Specialty Modules			
Part Number	Number of Channels	Description	Price
P2-HSI	2	High-Speed Input	\$288.00
P2-HSO**	2	High-Speed Output	\$288.00
P2-02HSC	2	High-Speed Counter	\$120.00
P2-04PWM	4	Pulse-Width Modulation	\$132.00
P2-SCM	4 ports	Serial Communications Module	\$242.00

** ZIPLink required.

Analog Output Modules

Productivity2000 Analog Output Modules			
Part Number	Number of Channels	Description	Price
P2-04DA	4	Analog Output (Voltage/Current)	\$286.00
P2-04DA-1	4	Analog Output (Current)	\$217.00
P2-04DA-2	4	Analog Output (Voltage)	\$212.00
P2-04DAL-1*	4	Analog Output (Current)	\$162.00
P2-04DAL-2*	4	Analog Output (Voltage)	\$151.00
P2-08DA-1	8	Analog Output (Current)	\$398.00
P2-08DA-2	8	Analog Output (Voltage)	\$365.00
P2-08DAL-1*	8	Analog Output (Current)	\$297.00
P2-08DAL-2*	8	Analog Output (Voltage)	\$288.00
P2-16DA-1	16	Analog Output (Current)	\$521.00
P2-16DA-2	16	Analog Output (Voltage)	\$499.00
P2-16DAL-1*	16	Analog Output (Current)	\$371.00
P2-16DAL-2*	16	Analog Output (Voltage)	\$355.00

* Low resolution analog modules without OLED display.

Discrete Output Modules

Productivity2000 Discrete Output Modules			
Part Number	Number of Outputs	Description	Price
P2-08TD1S	8	Isolated Sinking	\$70.00
P2-08TD2S	8	Isolated Sourcing	\$70.00
P2-15TD1	15	Sinking	\$97.00
P2-15TD2	15	Sourcing	\$95.00
P2-08TD1P	8	Sinking Protected	\$60.00
P2-08TD2P	8	Sourcing Protected	\$60.00
P2-16TD-TTL	16	Sourcing	\$116.00
P2-16TD1P	16	Sinking Protected	\$101.00
P2-16TD2P	16	Sourcing Protected	\$101.00
P2-32TD1P	32	Sinking Protected	\$148.00
P2-32TD2P	32	Sourcing Protected	\$148.00
P2-08TAS	8	Isolated AC	\$154.00
P2-16TA	16	100-240 VAC Output	\$190.00
P2-06TRS	6	Isolated Relay	\$111.00
P2-08TRS	8	Isolated Relay	\$73.00
P2-08TEPS	8	Isolated SS Relay	\$160.00
P2-16TR	16	Relay	\$137.00

Analog Input Modules

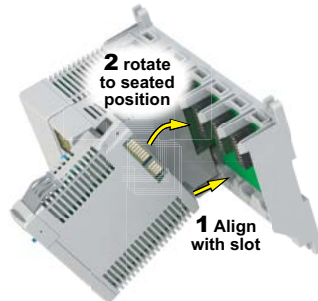
Productivity2000 Analog Input Modules			
Part Number	Number of Channels	Description	Price
P2-04AD	4	Analog Input (Voltage/Current)	\$288.00
P2-04AD-1	4	Analog Input (Current)	\$217.00
P2-04AD-2	4	Analog Input (Voltage)	\$224.00
P2-08AD-1	8	Analog Input (Current)	\$303.00
P2-08AD-2	8	Analog Input (Voltage)	\$333.00
P2-08ADL-1*	8	Analog Input (Current)	\$212.00
P2-08ADL-2*	8	Analog Input (Voltage)	\$230.00
P2-16AD-1	16	Analog Input (Current)	\$366.00
P2-16AD-2	16	Analog Input (Voltage)	\$406.00
P2-16ADL-1*	16	Analog Input (Current)	\$261.00
P2-16ADL-2*	16	Analog Input (Voltage)	\$289.00
P2-06RTD	6	Analog RTD Input	\$476.00
P2-08NTC	8	Analog Thermocouple Input	\$424.00
P2-08THM	8	Analog Thermistor Input	\$468.00
P2-08THMS	8	Analog Thermocouple Input	\$475.00

Productivity2000 Analog Input/Output Modules			
Part Number	Number of Channels	Description	Price
P2-8AD4DA-1	8/4	Analog Input/Output (Current)	\$456.00
P2-8AD4DA-2	8/4	Analog Input/Output (Voltage)	\$456.00

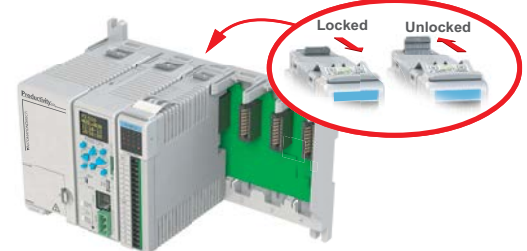
I/O Module Installation Procedure

WARNING: DO NOT APPLY FIELD POWER UNTIL THE FOLLOWING STEPS ARE COMPLETED. SEE HOT-SWAP PROCEDURE FOR EXCEPTIONS.

Step One: Align module catch with base slot and module into connector.



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



Step Three: Attach field wiring using removable terminal block or ZIPLink wiring system.



WARNING: EXPLOSION HAZARD – DO NOT CONNECT OR DISCONNECT CONNECTORS OR OPERATE SWITCHES WHILE CIRCUIT IS LIVE UNLESS THE AREA IS KNOWN TO BE NON-HAZARDOUS. DO NOT HOT-SWAP MODULES UNLESS THE AREA IS KNOWN TO BE NON-HAZARDOUS.