

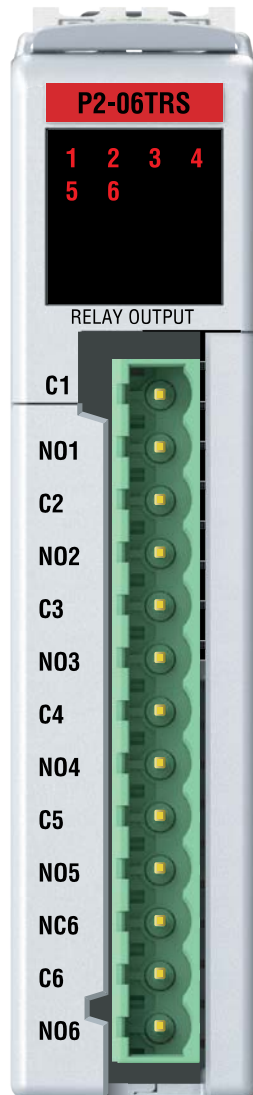
Relay Output Modules

P2-06TRS

\$,067!e:

Isolated Relay Output

The P2-06TRS high-current isolated relay output module provides six, 7A surge-protected relay outputs for extended life. The module offers both normally open and normally closed relay contacts. For use with the Productivity2000 system.



Terminal block sold separately.

ZipLink connectors are not compatible with this module. P2-RTB13 or P2-RTB13-1 removable terminal blocks must be ordered separately.



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

Output Specifications

Outputs per Module	6
Rated Voltage	100-240 VAC / 30VDC
Operating Voltage Range	5-30 VDC 5-264 VAC
Output type	5 Relays, FORM A (SPST) 1 Relays, FORM C (SPDT)
AC Frequency	47-63 Hz
Maximum Output Current @ Temp	7A / point @ 40°C, 6A/point at 60°C for both AC and DC
Minimum Load Current	5mA @ 5VDC
Maximum Inrush Current	10A for 10ms
OFF to ON Response	10ms
ON to OFF Response	10ms
Status Indicators	Logic Side (6 points)
Commons	6 Isolated (1 point / common)
Protection Circuit	12A Max Not built-in to module - install protection elements such as external fuse.

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	3000VAC applied for 5 second 1100VAC applied for 1 minute
Insulation Resistance	>10MΩ @ 500VDC
Heat Dissipation	3W
Enclosure Type	Open equipment
Module Keying to Backplane	Electronic
Module Location	Any I/O slot in a Productivity2000 system.
Field Wiring	Use removable terminal block (not included). See Wiring Solutions.
Connector Type (Sold separately)	13 position removable terminal block
Weight	148g (5.2 oz)
Agency Approvals	UL 61010-1 and UL 61010-2-201 File E139594, Canada and USA ^{1,2} CE (EN 61131-2 EMC, EN 61010-1 and EN 61010-2-201 Safety) ³

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

2. Per UL61010-2-201 mixed voltage use is restricted:

Mixed use of 24VDC and 120VAC is allowed.

Mixed use of 120VAC and 240VAC is allowed.

Mixed use of 24VDC and 240VAC is not permitted.

3. To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific component part number web page.

Relay Output Modules

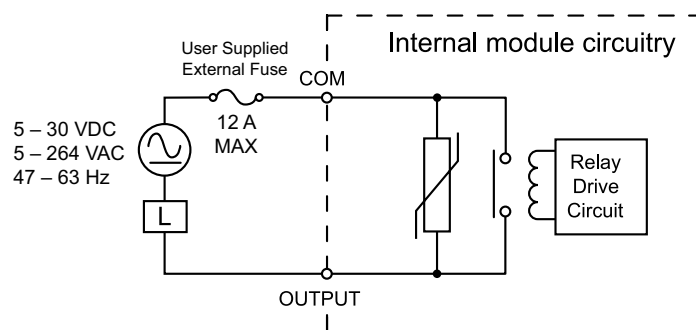
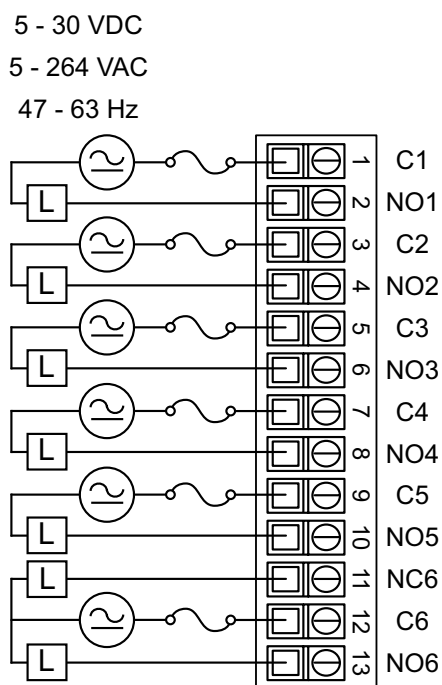
P2-06TRS (cont'd)

Removable Terminal Block Specifications		
Part Number	P2-RTB13	P2-RTB13-1
Number of positions	13 Screw terminals, 5.08 mm terminal block plug	13 Push release terminals, 5.08 mm terminal block plug
Wire Range	24–12 AWG (0.25–4mm ²) Solid/stranded conductor 3/64 in (1.2 mm) insulation max. 3/8 in (9–10 mm) strip length	
Conductors	USE COPPER CONDUCTORS, 75°C or equivalent.	
Screw Driver Width	0.13 in. (3.5 mm) maximum*	N/A
Screw Size	M2.5	N/A
Screw Torque	4.4 lb·in (0.5 N·m)	N/A

* Recommended screw driver: P/N [TW-SD-MSL-1](#).

Typical Relay Life	
Voltage & Type of Load	Operations at 4A Load Current
30VDC Resistive	100,000
30VDC Solenoid	
120VAC Resistive	
120VAC Solenoid	

Wiring Diagrams



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	\$0?uc:
P2-08ND3-1	8	Sinking/Sourcing 12-24 VDC	\$1o98:
P2-16ND-TTL	16	Sinking/Sourcing	\$,-067!i:
P2-16ND3-1	16	Sinking/Sourcing 24V AC/DC	\$01o99:
P2-32ND3-1	32	Sinking/Sourcing 12-24 VDC	\$01o9a:
P2-08NE3	8	Sinking/Sourcing 24V AC/DC	\$0?v3:
P2-16NE3	16	Sinking/Sourcing 12-24 VDC	\$00?v4:
P2-32NE3	32	Sinking/Sourcing 24V AC/DC	\$,00,96:
P2-08NAS	8	AC Isolated 100-120 VAC	\$,012d[:
P2-16NA	16	AC 100-240 VAC	\$00?v5:

Specialty Modules

Productivity2000 Specialty Modules			
Part Number	Number of Channels	Description	Price
P2-HSI	2	High-Speed Input	\$00?vg:
P2-HSO**	2	High-Speed Output	\$00?vh:
P2-02HSC	2	High-Speed Counter	\$04n54:
P2-04PWM	4	Pulse-Width Modulation	\$04n55:
P2-SCM	4 ports	Serial Communications Module	\$00?uy:

** ZIPLink required.

Analog Output Modules

Productivity2000 Analog Output Modules			
Part Number	Number of Channels	Description	Price
P2-04DA	4	Analog Output (Voltage/Current)	\$00?u?:
P2-04DA-1	4	Analog Output (Current)	\$04n56:
P2-04DA-2	4	Analog Output (Voltage)	\$04n57:
P2-04DAL-1*	4	Analog Output (Current)	\$012e1:
P2-04DAL-2*	4	Analog Output (Voltage)	\$012e2:
P2-08DA-1	8	Analog Output (Current)	\$,00?u,:
P2-08DA-2	8	Analog Output (Voltage)	\$00?v0:
P2-08DAL-1*	8	Analog Output (Current)	\$,00,ep:
P2-08DAL-2*	8	Analog Output (Voltage)	\$,00,eq:
P2-16DA-1	16	Analog Output (Current)	\$00?v1:
P2-16DA-2	16	Analog Output (Voltage)	\$00?v2:
P2-16DAL-1*	16	Analog Output (Current)	\$,00,es:
P2-16DAL-2*	16	Analog Output (Voltage)	\$,;00,et:

* 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	\$12ga:
P2-08TD2S	8	Isolated Sourcing	\$12gb:
P2-15TD1	15	Sinking	\$12d#:
P2-15TD2	15	Sourcing	\$,12d!:
P2-08TD1P	8	Sinking Protected	\$0?v8:
P2-08TD2P	8	Sourcing Protected	\$0?v9:
P2-16TD-TTL	16	Sourcing	\$,067!h:
P2-16TD1P	16	Sinking Protected	\$00?va:
P2-16TD2P	16	Sourcing Protected	\$00?vb:
P2-32TD1P	32	Sinking Protected	\$012d?:
P2-32TD2P	32	Sourcing Protected	\$,012d,:
P2-08TAS	8	Isolated AC	\$012g9:
P2-16TA	16	100-240 VAC Output	\$00?vc:
P2-06TRS	6	Isolated Relay	\$,067!e:
P2-08TRS	8	Isolated Relay	\$0?vd:
P2-16TR	16	Relay	\$,00?vf:

Analog Input Modules

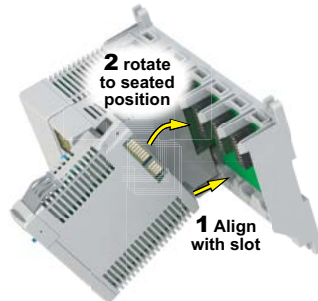
Productivity2000 Analog Input Modules			
Part Number	Number of Channels	Description	Price
P2-04AD	4	Analog Input (Voltage/Current)	\$00?uv:
P2-04AD-1	4	Analog Input (Current)	\$04n52:
P2-04AD-2	4	Analog Input (Voltage)	\$04n53:
P2-08AD-1	8	Analog Input (Current)	\$,00?u[:
P2-08AD-2	8	Analog Input (Voltage)	\$00?u,:
P2-08ADL-1*	8	Analog Input (Current)	\$,00,ek:
P2-08ADL-2*	8	Analog Input (Voltage)	\$,-00,el:
P2-16AD-1	16	Analog Input (Current)	\$00?u#:
P2-16AD-2	16	Analog Input (Voltage)	\$,00?u!:
P2-16ADL-1*	16	Analog Input (Current)	\$,00,en:
P2-16ADL-2*	16	Analog Input (Voltage)	\$,00,eo:
P2-06RTD	6	Analog RTD Input	\$00?v7:
P2-08NTC	8	Analog Thermocouple Input	\$,0118,:
P2-08THM	8	Analog Thermistor Input	\$00?v6:

Productivity2000 Analog Input/Output Modules			
Part Number	Number of Channels	Description	Price
P2-8AD4DA-1	8/4	Analog Input/Output (Current)	\$00?uz:
P2-8AD4DA-2	8/4	Analog Input/Output (Voltage)	\$,00?uj:

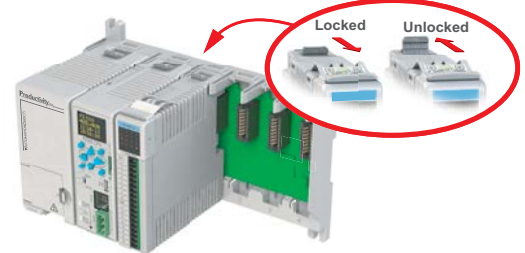
I/O Module Installation Procedure

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.