

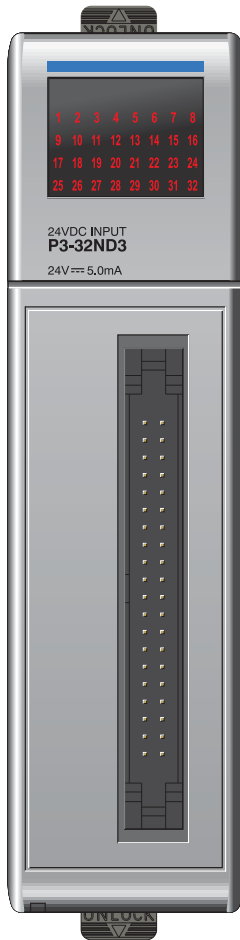
# DC Input Modules

## P3-32ND3



### Sinking/Sourcing Input

The P3-32ND3 DC Input Module provides thirty-two 24 VDC sinking or sourcing inputs with four isolated commons.



**No terminal block sold for this module; ZIPLink required.**

Input Specifications		
Inputs per Module	32 (sinking / sourcing)	
Operating Voltage Range (Tolerance)	CE	24 VDC (± 10%)
	UL	24 VDC (± 10%)
Peak Voltage	26.4 VDC	
Input Current (Typical)	5 mA @ 24 VDC	
Maximum Input Current @ Temp	6 mA @ 60° C (26.4 VDC)	
Input Impedance	4.7k Ω @ 24 VDC	
ON Voltage Level	> 18 VDC	
OFF Voltage Level	< 8 VDC	
Minimum ON Current	3.5 mA	
Maximum OFF Current	2 mA	
OFF to ON Response	Max. 2 ms Typical 1ms	
ON to OFF Response	Max. 2 ms Typical 1ms	
Status Indicators	Logic Side (32 points)	
Connector Type	40-pin IDC	
Commons	4 Isolated (8 points / common)	

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	1500VAC applied for 1 minute
Insulation Resistance	>10MΩ @ 500 VDC
Heat Dissipation	5.96W
Enclosure Type	Open Equipment
Agency Approvals	UL508 file E157382, Canada & USA UL1604 file E200031, Canada & USA CE (EN61131-2*)  This equipment is suitable for use in Class 1, Division 2, Groups A, B, C and D or non-hazardous locations only.
Module Keying to Backplane	Electronic
Module Location	Any I/O slot in any local, expansion, or remote base in a Productivity3000 System.
Field Wiring	Use ZIPLink wiring system. See "Wiring I/O Modules".
EU Directive	See the "EU Directive" topic in the Productivity3000 Help File. Information can also be obtained at: <a href="http://www.productivitypac.com">www.productivitypac.com</a>
Weight	120g (4.23 oz)

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

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

**WARNING: Explosion hazard – Substitution of components may impair suitability for Class I, Division 2.**

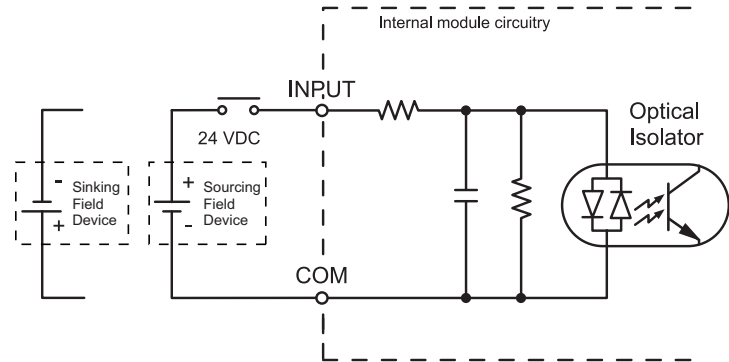
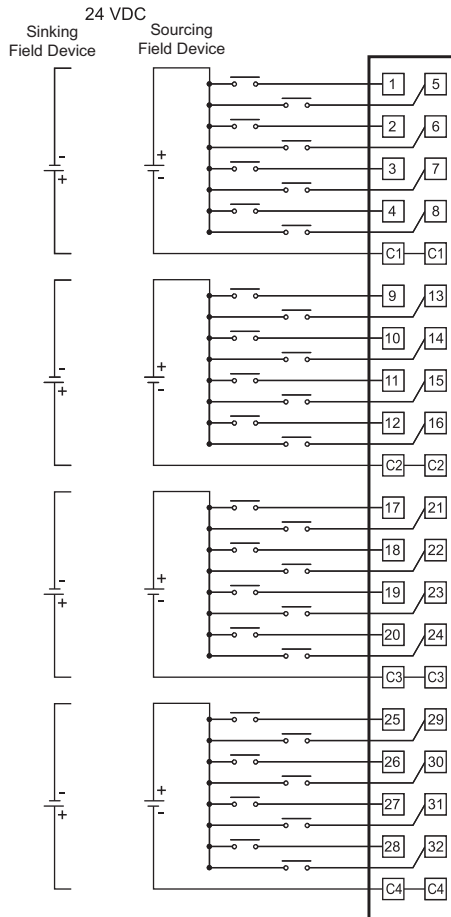
See "Wiring Systems" for part numbers of ZIPLink cables and connection modules required with this I/O module.



# DC Input Modules

## P3-32ND3 (cont'd)

### Wiring Diagrams





## Specify your ZIPLink system

Use the Compatibility Matrix table below.

<b>Step 1</b>	Locate the I/O module part number.
<b>Step 2</b>	Locate Connector Module Type. (Feedthrough Module, Fuse Module, etc...)
<b>Step 3</b>	Select the cable length by replacing the # symbol with: Blank = 0.5m, -1 = 1.0m, -2 = 2.0m <sup>1</sup>
<sup>1</sup> Note: Cable part number denotes compatibility between Connector Module and I/O Modules.	

Productivity3000 ZIPLink Wiring System Compatibility Matrix								
Step 2: Connector Module Type		Feedthrough Modules		Fuse Modules		Relay Module	Sensor Input Mod.	Pigtail Cable
Step 1: I/O Module	Number of Terminals	ZL-RTB20	ZL-RTB40	ZL-RFU20	ZL-RFU40	ZL-RRL16-24	ZL-LTB16-24	
		Step 3: Cables						
<b>Inputs</b>								
P3-08NAS	20	ZL-P3-CBL20#						ZL-P3-CBL20-#P
P3-08ND3S	20	ZL-P3-CBL20#						ZL-P3-CBL20-#P
P3-16NA	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P
P3-16ND3	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P
P3-32ND3	40		ZL-CBL40#				ZL-P3-CBL40#	
P3-64ND3*	40		ZL-CBL40#				ZL-P3-CBL40#	
<b>Outputs</b>								
P3-08TAS	20	ZL-P3-CBL20#						ZL-P3-CBL20-#P
P3-08TD1S	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P
P3-08TD2S	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P
P3-08TRS	20	ZL-P3-CBL20#						ZL-P3-CBL20-#P
P3-16TA	20	ZL-P3-CBL20#		ZL-P3-CBL20L#				ZL-P3-CBL20-#P
P3-16TD1	20	ZL-P3-CBL20#		ZL-P3-CBL20#		ZL-P3-CBL20#		ZL-P3-CBL20-#P
P3-16TD2	20	ZL-P3-CBL20#		ZL-P3-CBL20#				ZL-P3-CBL20-#P
P3-16TR	20	ZL-P3-CBL20#		ZL-P3-CBL20#				ZL-P3-CBL20-#P
P3-08TRS-1***	20	ZL-P3-CBL20#						ZL-P3-CBL20-#P
P3-32TD1	40		ZL-CBL40#		ZL-CBL40#			
P3-32TD2	40		ZL-CBL40#		ZL-CBL40#			
P3-64TD1*	40		ZL-CBL40#		ZL-CBL40#			
P3-64TD2*	40		ZL-CBL40#		ZL-CBL40#			
<b>Analog In</b>								
P3-04ADS	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P
P3-08AD	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P
P3-16AD-1	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P
P3-16AD-2	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P
P3-08RTD**	Matched Only							
P3-08THM**	T/C Wire Only							
<b>Analog Out</b>								
P3-04DA	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P
P3-08DA-1	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P
P3-08DA-2	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P
P3-06DAS-1	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P
P3-06DAS-2	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P
P3-16DA-1	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P
P3-16DA-2	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P
<b>Analog Combo</b>								
P3-8AD4DA-1	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P
P3-8AD4DA-2	20	ZL-P3-CBL20L#						ZL-P3-CBL20-#P

\*The P3-64ND3, P3-64TD1, and P3-64TD2 modules have two 32-point connectors and require 2 ZIPLink cables and 2 ZIPLink connector modules.

\*\*These modules are not supported by the ZIPLink wiring system. Removable terminal block P3-RTB included.

\*\*\*The P3-08TRS-1 output module is derated, not to exceed 2A per point maximum when used with the ZIPLink wiring system.

# I/O Modules

A variety of discrete and analog I/O modules are available for use in local, expansion, and remote I/O bases. Specifications for each module are on the following pages.

A filler module is available for unused I/O module slots (part number P3-FILL).



## Discrete Input Modules

Productivity3000 Discrete Input Modules			
Part Number	Number of Inputs	Description	Price
P3-16SIM	16	Input Simulator Module	<--->
P3-08ND3S	8	Isolated Sinking/Sourcing DC Input	<--->
P3-16ND3	16	Sinking/Sourcing DC Input	<--->
P3-32ND3*	32	Sinking/Sourcing DC Input	<--->
P3-64ND3*	64	Sinking/Sourcing DC Input	<--->
P3-08NAS	8	Isolated AC Input	<--->
P3-16NA	16	AC Input	<--->

\*ZIPLink required.

## Analog I/O Modules

Productivity3000 Analog Input Modules			
Part Number	Number of Channels	Description	Price
P3-04ADS	4	Isolated Analog Input	<--->
P3-08AD	8	Analog Input	<--->
P3-16AD-1	16	Analog Input (Current)	<--->
P3-16AD-2	16	Analog Input (Voltage)	<--->
P3-08RTD	8	Analog RTD Input	<--->
P3-08THM	8	Analog Thermocouple Input	<--->

Productivity3000 Analog Output Modules			
Part Number	Number of Channels	Description	Price
P3-04DA	4	Analog Output	<--->
P3-08DA-1	8	Analog Output (Current)	<--->
P3-08DA-2	8	Analog Output (Voltage)	<--->
P3-06DAS-1	6	Isolated Analog Output (Current)	<--->
P3-06DAS-2	6	Isolated Analog Output (Voltage)	<--->
P3-16DA-1	16	Analog Output (Current)	<--->
P3-16DA-2	16	Analog Output (Voltage)	<--->

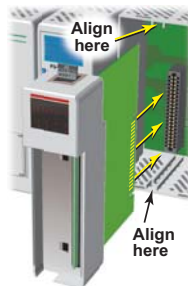
Productivity3000 Analog Input/Output Modules			
Part Number	Number of Channels	Description	Price
P3-8AD4DA-1	8/4	Analog Input/Output (Current)	<--->
P3-8AD4DA-2	8/4	Analog Input/Output (Voltage)	<--->

## Discrete Output Modules

Productivity3000 Discrete Output Modules			
Part Number	Number of Outputs	Description	Price
P3-08TD1S	8	Isolated Sinking Output	<--->
P3-08TD2S	8	Isolated Sourcing Output	<--->
P3-16TD1	16	Sinking Output	<--->
P3-16TD2	16	Sourcing Output	<--->
P3-32TD1*	32	Sinking Output	<--->
P3-32TD2*	32	Sourcing Output	<--->
P3-64TD1*	64	Sinking Output	<--->
P3-64TD2*	64	Sourcing Output	<--->
P3-08TAS	8	Isolated AC Output	<--->
P3-16TA	16	AC Output	<--->
P3-08TRS	8	Isolated Relay Output	<--->
P3-16TR	16	Relay Output	<--->
P3-08TRS-1	8	Isolated Relay Output	<--->

\*ZIPLink required.

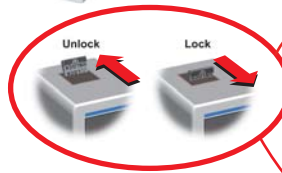
## Module Installation Procedure



**WARNING:** Do not apply field power until the following steps are completed. See hot-swapping procedure for exceptions.

**Step One:** Align circuit card with slot and press firmly to seat module into connector.

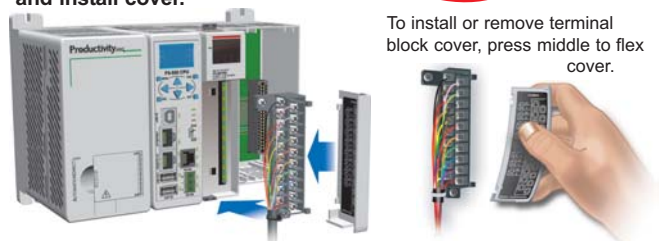
**Step Two:** Pull top and bottom locking tabs toward module face. Click indicates lock is engaged.



**Step Three:** Attach field wiring using optional terminal block or ZIPLink wiring system and install cover.



To install or remove terminal block cover, press middle to flex cover.



**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.