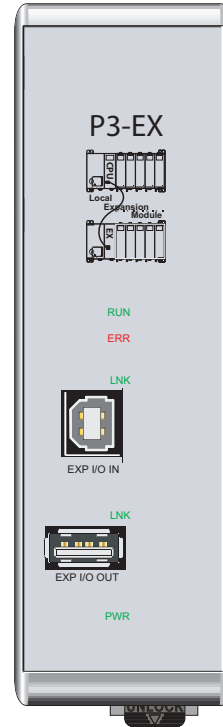


Module Specifications

| | |
|---|--|
| Mounting Location | Controller slot of expansion base |
| Expansion Connectors | 1 USB 2.0 Type A, 1 USB 2.0 Type B |
| Maximum Number of Expansion Modules per CPU or Remote Slave | 4 |
| Maximum Distance Between Modules | 15 feet |
| Status Indicators | PWR - Green LED is illuminated when power is on. RUN - Green LED is illuminated when not in reset. Reset occurs during power-up, a watchdog timeout, or if an expansion cable is disconnected. ERR - Red LED is illuminated when a USB fault is detected. LINK - Green LED is illuminated when a USB link is established. |
| I/O Capabilities | |
| Max. Number of I/O per CPU System | 59,840 (CPU Base with 4 Expansion Bases plus 16 Remote Bases with 4 Expansion Bases per Remote, with 11 64-point I/O modules per base) |
| Max. Number of Expansion I/O Bases | 68 (4 per CPU, 4 per Remote Base) |
| Module Setup | Automatic hardware verification |
| Expansion I/O Addressing | Automatic via Tag Names |
| USB Cables | 6 foot: P3-EX-CBL6 (USB Type A to USB Type B) |

| Document Name | Edition/Revision | Date |
|---------------|------------------|----------|
| P3-EX-M | 1st Ed. Rev B | 1/7/2014 |

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P3-EX Expansion Module

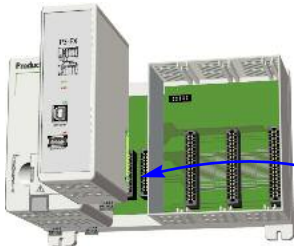
The P3-EX high-performance expansion module provides local I/O expansion to a CPU or Remote I/O for the Productivity3000 Programmable Automation Controller system. Includes 6-foot USB expansion cable.

| | |
|-----------------------------------|---|
| Module Specifications | 1 |
| Module Installation Procedure | 2 |
| Expansion I/O Port Specifications | 2 |
| Typical Expansion Configuration | 3 |
| Safety Information | 4 |
| Hot Swap Information | 4 |
| Status Indicators | 4 |
| General Specifications | 4 |

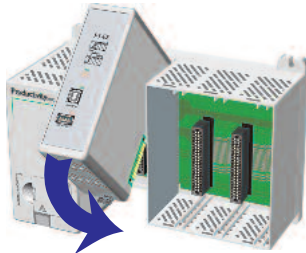


Warranty: Thirty-day money-back guarantee. Two-year limited replacement. (See www.productivitypac.com for details).

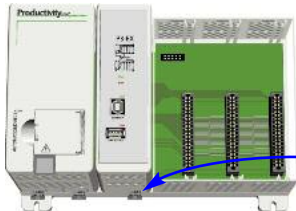
Installation Procedure



Step One:
Locate the two sockets next to the Power Supply.



Step Two:
Insert P3-EX at a 45° angle into the notch located at the top of the base and rotate down until seated.



Step Three:
Snap retaining tab into the locked position.

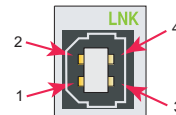
WARNING: Explosion hazard – Do not connect or disconnect connectors or operate switches while circuit is live unless the area is known to be non-hazardous. Do not hot-swap modules unless the area is known to be non-hazardous.

AVERTISSEMENT: Risque d'explosion : ne pas connecter ou déconnecter les connecteurs ni actionner les commutateurs alors que le circuit est sous tension, à moins que la zone ne soit reconnue non dangereuse. Ne pas remplacer à chaud les modules à moins que la zone ne soit reconnue non dangereuse.

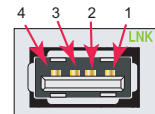
Exp I/O Port Specifications

| Port Name | EXP I/O IN | EXP I/O OUT |
|-----------------|---|--|
| Description | Proprietary USB 2.0 Slave input for connection with a CPU, Remote Slave, or preceding P3-EX expansion base. | Proprietary USB 2.0 Master output for connection with the next P3-EX expansion base. Includes built-in surge protection. |
| Transfer Rate | 480 Mbps | |
| Port Status LED | Green LED is illuminated when LINK is established to connected device | |
| Cables | USB Type A to USB Type B:* 6 ft. cable part # P3-EX-CBL6. | |

*The P3-EX Expansion Module includes the 6-foot USB cable P3-EX-CBL6.



Mating face of USB type B female

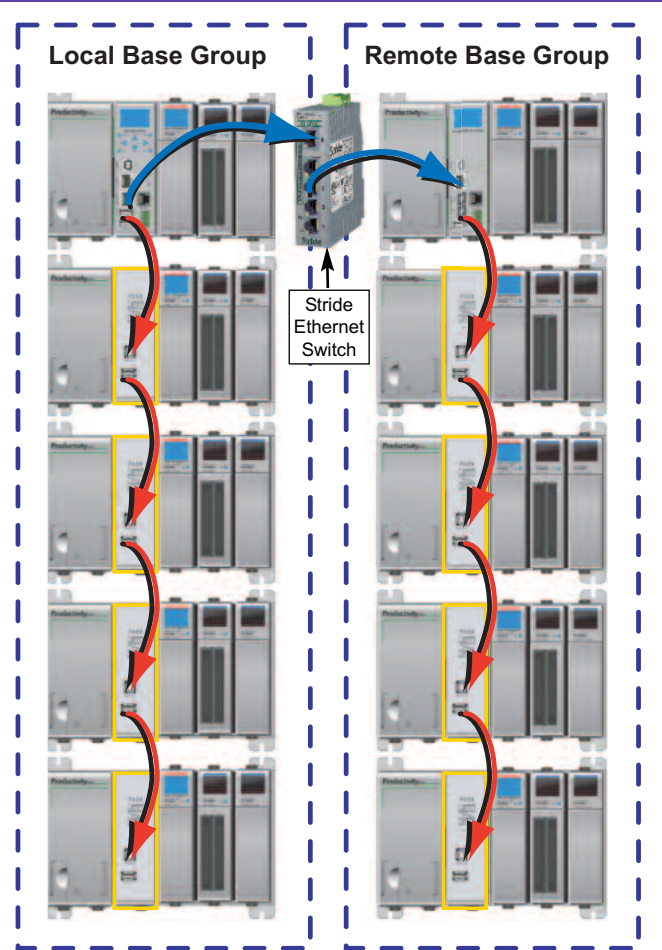
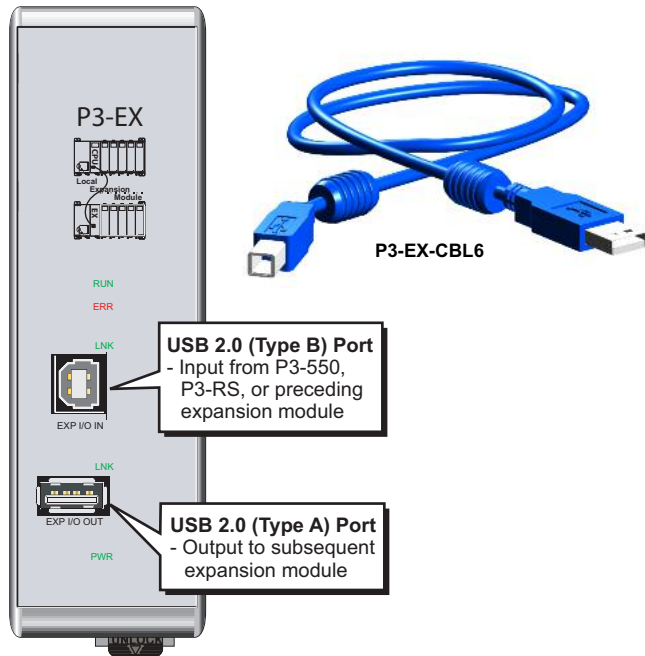


Mating face of USB type A female

| Pin # | Signal |
|-------|--------|
| 1 | Reset |
| 2 | - Data |
| 3 | + Data |
| 4 | GND |

Typical Expansion Configuration

The PAC system can have up to 68 expansion bases by adding 4 expansion bases at the CPU base and 4 expansion bases per Remote I/O Slave (up to 16 slaves). Each expansion base uses the P3-EX expansion module for USB connectivity. Use a P3-EX-CBL6 which is included with the P3-EX.



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 770-844-4200.

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Hot-Swapping Information

Note: This device cannot be Hot Swapped.

Expansion Module Status Indicators

| | |
|-----|--|
| PWR | Green LED is illuminated when power is on. |
| RUN | Green LED is illuminated when not in reset. Reset occurs during power-up, a watchdog timeout, or an expansion cable is disconnected. |
| ERR | Red LED is illuminated when a USB fault is detected. |
| LNK | Green LED is illuminated when a USB link is established. |

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) |
| Heat Dissipation | 1W |
| 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 Location | Controller slot in a local expansion base in a Productivity3000 System |
| EU Directive | See the "EU Directive" topic in the Productivity3000 Help File. Information can also be obtained at: www.productivitypac.com |
| Weight | 194g (6.24 oz) |

*Meets EMC and Safety requirements. See the D.O.C. for details.

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

AVERTISSEMENT: Risque d'explosion : la substitution de composants peut compromettre la convenance pour la Classe I, Zone 2 ou pour la Classe I, Division 2.