

# P3-EX Expansion Module

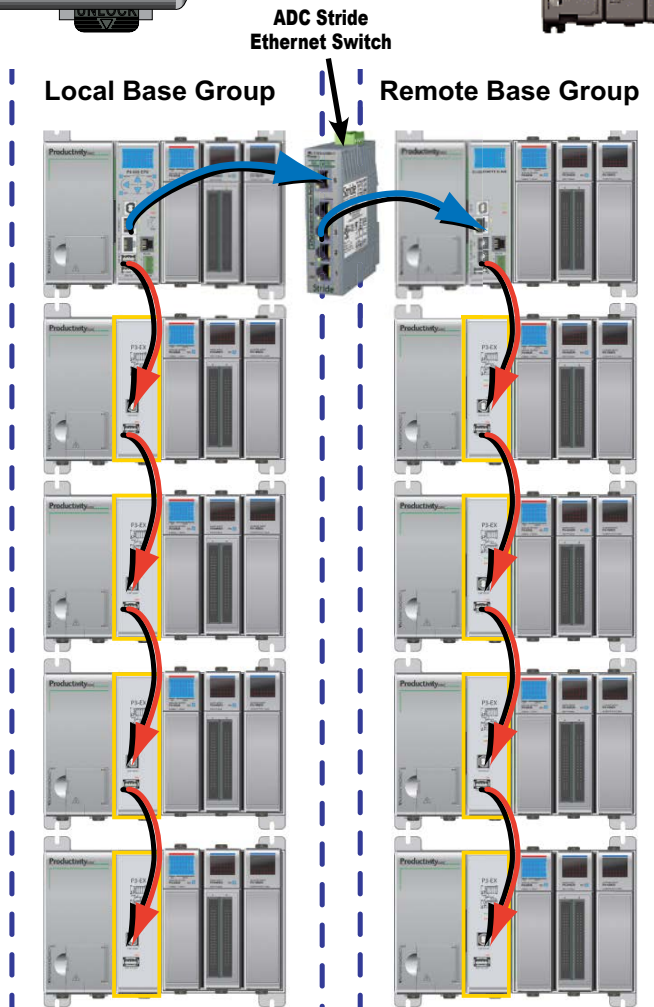
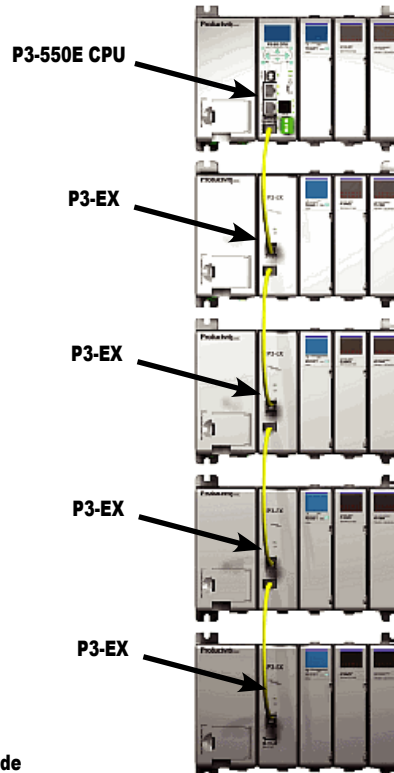
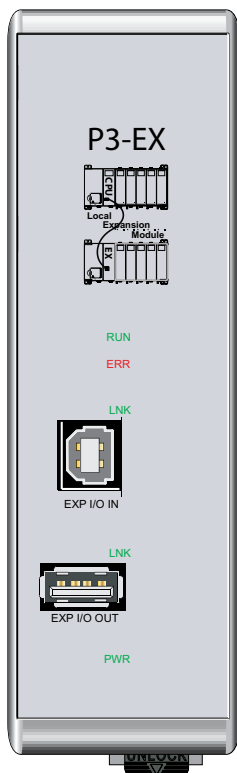
**P3-EX**     **\$125.00**

The P3-EX high-performance expansion module provides local I/O expansion to a CPU or Remote I/O. Includes 6-foot USB expansion cable.

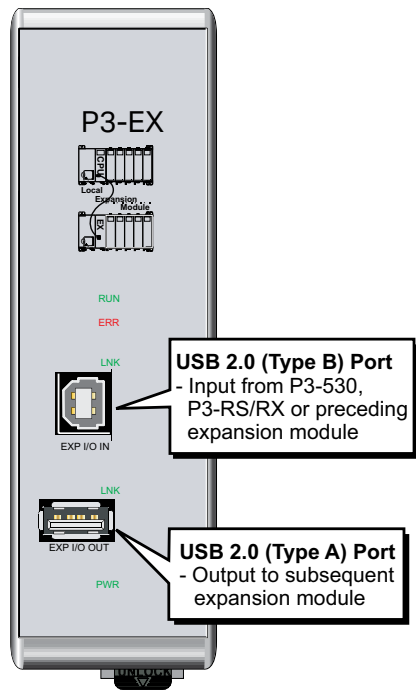


**A 6-foot USB cable is included with the P3-EX module (Replacement cable: part number P3-EX-CBL6).**

The system can have up to 68 expansion bases by adding four expansion bases at the CPU base and four expansion bases per Remote I/O Slave (up to 16 slaves). Each expansion base uses the P3-EX expansion module for USB-based I/O bus connectivity.



# P3-EX Expansion Module



Module Specifications	
<b>Mounting Location</b>	Controller slot of expansion base
<b>Expansion Connectors</b>	1 USB 2.0 Type A, 1 USB 2.0 Type B
<b>Maximum Number of Expansion Modules per CPU or Remote Slave</b>	4
<b>Maximum Distance Between Modules</b>	15 feet
<b>Status Indicators</b>	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. LNK - Green LED is illuminated when a USB link is established.
<b>I/O Capabilities</b>	
<b>Max. Number of I/O per CPU System</b>	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)
<b>Max. Number of Expansion I/O Bases</b>	68 (4 per CPU, 4 per Remote Base)
<b>Module Setup</b>	Automatic hardware verification
<b>Expansion I/O Addressing</b>	Automatic via Tag Names
<b>USB Cables</b>	6 foot: P3-EX-CBL6 (USB Type A to USB Type B)

**Hot-Swapping Information**  
**Note: This device cannot be Hot Swapped.**

**IMPORTANT!**



**WARNING!:** EXPLOSION HAZARD –  
 SUBSTITUTION OF COMPONENTS MAY IMPAIR  
 SUITABILITY FOR CLASS 1, DIVISION 2.

Expansion Module Status Indicators	
<b>PWR</b>	Green LED is illuminated when power is on.
<b>RUN</b>	Green LED is illuminated when not in reset. Reset occurs during power-up, a watchdog timeout, or an expansion cable is disconnected.
<b>ERR</b>	Red LED is illuminated when a USB fault is detected.
<b>LNK</b>	Green LED is illuminated when a USB link is established.

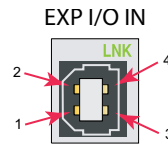
General Specifications	
<b>Operating Temperature</b>	0°C– 60°C (32°F–140°F)
<b>Storage Temperature</b>	-20°C–70°C (-4°F–158°F)
<b>Humidity</b>	5 to 95% (non-condensing)
<b>Environmental Air</b>	No corrosive gases permitted
<b>Vibration</b>	IEC60068-2-6 (Test Fc)
<b>Shock</b>	IEC60068-2-27 (Test Ea)
<b>Heat Dissipation</b>	1W
<b>Enclosure Type</b>	Open equipment
<b>Module Location</b>	Controller slot in a local expansion base in a Productivity3000 system
<b>Weight</b>	194g (6.24 oz)
<b>Agency Approvals</b>	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.

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

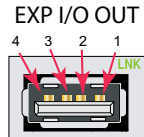
# P3-EX Expansion Module

## Port Specifications

Exp I/O Port Specifications		
Port Name	EXP I/O IN	EXP I/O OUT
<b>Description</b>	Proprietary USB 2.0 Slave input for connection with a CPU, Remote Slave, or preceding P3-EX expansion base. The P3-EX Expansion Module includes the 6 foot USB cable P3-EX-CBL6.	Proprietary USB 2.0 Master output for connection with the next P3-EX expansion base. Includes built-in surge protection.
<b>Transfer Rate</b>	480 Mbps	
<b>Port Status LED</b>	Green LED is illuminated when LINK is established to connected device	
<b>Cables</b>	USB Type A to USB Type B: 6ft. cable part no. P3-EX-CBL6	



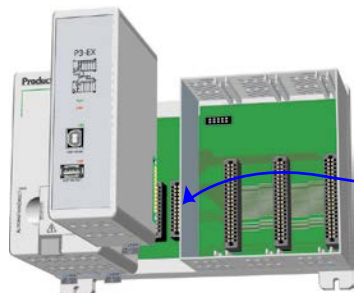
Mating face of USB type B female



Mating face of USB type A female

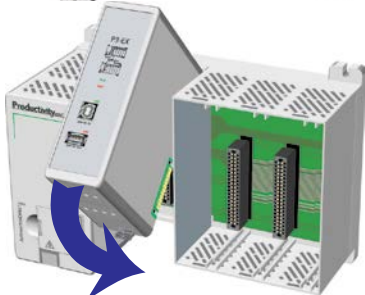
Pin #	Signal
1	Reset
2	- Data
3	+ Data
4	GND

## Installation Procedure



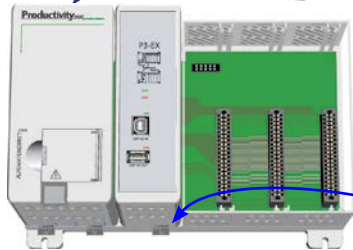
### Step One:

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.