

# 1. 5ACPCI.XPNS-00

## 1.1 General information

The 5ACPCI.XPNS-00 module is a PCI half-size module.

The 5ACPCI.XPNS-00 is equipped with two Ethernet interfaces and can therefore be used as a device in a Profinet network. Data is exchanged via the dual port memory.

## 1.2 Order data

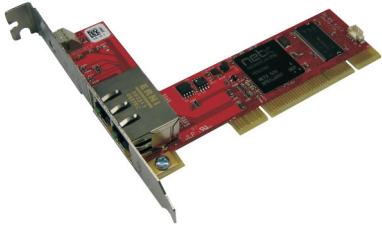
Model number	Short description	Figure
5ACPCI.XPNS-00	PCI Profinet device	

Table 1: Order data - 5ACPCI.XPNS-00

### 1.3 Technical data

Name	5ACPCI.XPNS-00
General information	
B&R ID code	\$B1D0
Configuration software	Automation Studio (version 3.0.81 and higher) / SYCONnet
Controller	
Processor	netX 500
Dual-port memory	64 KB
Interfaces	
Interface	
Type	Ethernet
Design	RJ45, CAT5
Transfer rate	10 MBit/s, 100 MBit/s
Max. cable length	100 m
Cyclic data	Max. 2048 bytes (IOCR)
Acyclic Data	Read/Write record, max. 1024 bytes/telegram
Functions	Context Management via CLRPC
	DCP
	Process and diagnostics alarm
	1 submodule
	Diagnostics, max. 200 bytes/telegram
	Max. 244 modules
	Set / actual -Configuration comparison
	VLAN and priority tagging
Electrical characteristics	
Power supply	
Rated voltage	+3.3 V $\pm 5\%$
Rated current	650 mA
Mechanical characteristics	
Slot	Standard PCI half-size module, ISA Plug & Play
Installation in	
B&R Automation PC	Yes
B&R Panel PC	Yes
Desktop PC	Yes
Outer dimensions	
Width	120 mm
Height	73.2 mm
Depth	18.5 mm
Environmental characteristics	
Ambient temperature	
Operation	0 to 55°C

Table 2: Technical data - 5ACPCI.XPNS-00

## 1.4 Status LEDs


Figure	LED	Color	Status	Description
	SYS	Green	On	Operating system is running
		Yellow	Blinks cyclically at 1 Hz	Device indicating a boot error
		Yellow	Static	Boot loader waiting for boot procedure
		-	Off	Supply voltage for the device missing or hardware defect
	SF	Red	On	(together with BF "Steady red") No valid master license
		Red	Blinks cyclically at 2 Hz	System error: Invalid configuration
		-	Off	No error
	BF	Red	On	No connection: No link. or (together with SF "Steady red") No valid master license
		Red	Blinks cyclically at 2 Hz	Configuration error: Not all configured IO devices are connected.
		-	Off	No error

Table 3: 5ACPCI.XPNS-00 - Status LEDs

## 1.5 Slot number switch

The slot number is used to uniquely identify real-time Ethernet cards, particularly if multiple cards are installed in the same PC.

### 1.5.1 Function

Sets the slot number for the real-time Ethernet card

The value range 1 ... 9 corresponds with the slot numbers 1 ... 9

The value 0 means

- no slot number (i.e. slot number not used)
- for reasons of backward compatibility
- indicates devices that do not have a rotary switch

(i.e. devices are identified by their device number and serial number).

### 1.5.2 Use

- used to uniquely identify real-time Ethernet cards, particularly if multiples cards are installed in the same PC.
- When exchanging a card (replacement): If the replacement card is installed in the PC using the same slot number as the previous card, then the same Firmware and configuration will be loaded as well
- The application program can request and use the slot number from the cifX device driver

## 1.6 Operating and connection elements

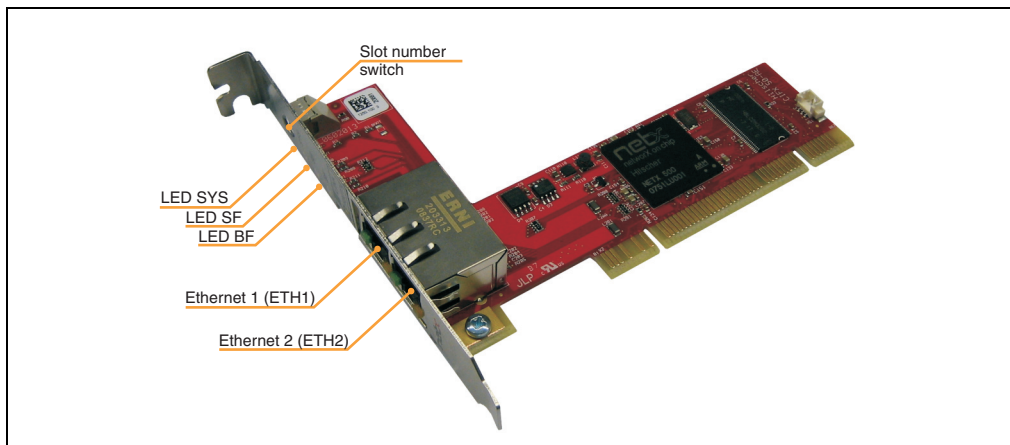


Figure 1: 5ACPCI.XPNS-00 - Operating and connection elements

## 1.7 Ethernet interface

For the Ethernet interface, an RJ45 plug and category 5 (CAT5) - or higher - twisted pair cable is used that is made up of 4 twisted pair wires and has a maximum transfer rate of 100 MBit/s (CAT5).

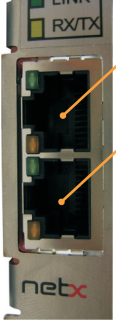
Interfaces	Pin assignments		
	Color	Status	Description
RJ45 twisted pair (10BaseT/100BaseT), female  	Green	On	Connection established with Ethernet
	-	Off	No connection between device and Ethernet
	Yellow	Blinking	The device is sending/receiving Ethernet frames

Table 4: 5ACPCI.XPNS-00 - Ethernet interfaces

## 1.8 B&R Automation Runtime

B&R Automation Runtime must be installed on the PC. The following runtime systems can be installed:

- ARwin
- ARemb

## 1.9 Firmware update

The 5ACPCI.XPNS-00 module is not delivered with preinstalled firmware. The firmware is part of the B&R Automation Runtime operating system for the PLC.

The latest 5ACPCI.XPNS-00 firmware is available automatically by updating your B&R Automation Runtime.