

# 1. 3IF7E3.9

## 1.1 General information

The 3IF7E3.9 interface module functions as a PROFINET RT device (slave). It can be used with System 2005 CPUs from system generation 4 (SG4). This includes CPUs with Intel processors, as used in the CP360, for example.

The interface has an RJ45 socket.

- PROFINET RT device

## 1.2 Order data


Model number	Short description	Figure
	<b>Interface module</b>	
3IF7E3.9	aPCI interface module, 1 PROFINET RT device	

Table 1: 3IF7E3.9 - Order data

## 1.3 Technical data

<b>Product ID</b>	<b>3IF7E3.9</b>
<b>Short description</b>	
Communication module	PROFINET RT device (slave)
<b>Interfaces</b>	
Interface IF1 Fieldbus Transmission Design Transfer rate Cable length	PROFINET RT 100 Base-T (ANSI/IEEE 802.3) Shielded RJ45 port 100 Mbit/s Max. 100 m between two stations (segment length)
<b>General information</b>	
Status indicators	Module status, network status, data transfer
Diagnostics Module status Network status Data transfer	Yes, with status LED and software status Yes, with status LED and software status Yes, with status LED
Electrical isolation PLC - IF1	Yes
Power consumption 3.3 V 5 V Total	1.6 W - 1.6 W
Certification	CE, C-UL-US (in development), GOST-R
<b>Mechanical characteristics</b>	
Slot	Insert in aPCI slot (e.g. in CP360)
Protection type	IP20
Operating / Storage temperature	0 to 60°C / -25 to 70°C
Relative humidity	5 to 95%, non-condensing

Table 2: 3IF7E3.9 - Technical data

## 1.4 Additional technical data

<b>Product ID</b>	<b>3IF7E3.9</b>
<b>Interface IF1, PROFINET RT device</b>	
Controller	netX100
Memory	8 MB SDRAM
<b>General information</b>	
B&R ID code	\$A721

Table 3: 3IF7E3.9 - Additional technical data

## 1.5 Status LEDs



LED	Color	Status	Description
SYS	Green / red	Off	Module supply not connected
	Red	Blinking	Boot error
		On	Communication on the PCI bus has not yet been started
	Green	On	Operating system is running
SF	Red	Off	No error
		Cyclic blinking <sup>1)</sup>	DCP signal service triggered via bus
		On	System error
BF	Red	Off	No error
		Blinking	No data exchange
		On	No configuration or physical connection error
Rx/Tx	Yellow	Off	No communication
		Flickering	Communication active
Link	Green	Off	No link to peer station or fast communication active
		On	A link to the remote station has been established

Table 4: 3IF7E3.9 - Status indicators

1) Blinks cyclicly at 2 Hz, duration 3 s.

## 1.6 Operating and connection elements

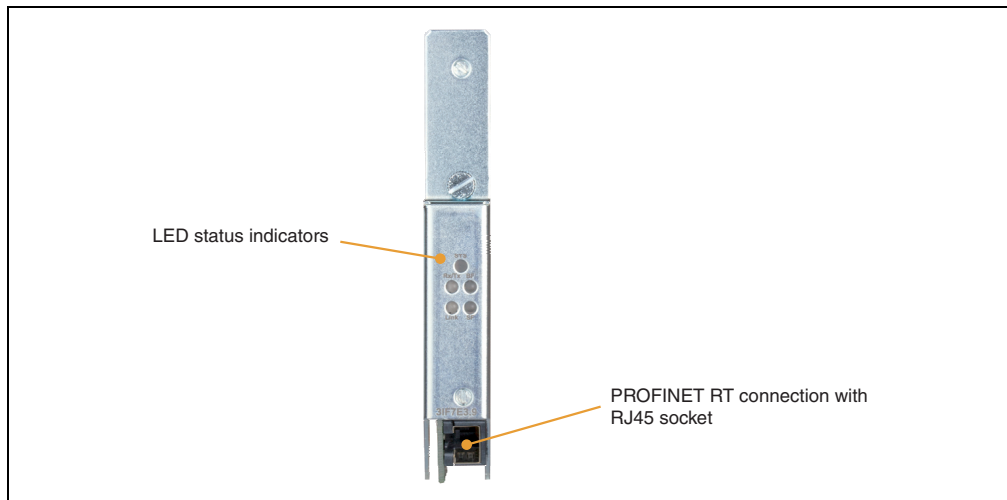


Figure 1: 3IF7E3.9 - Operating and connection elements

## 1.7 PROFINET RT interface (IF1)

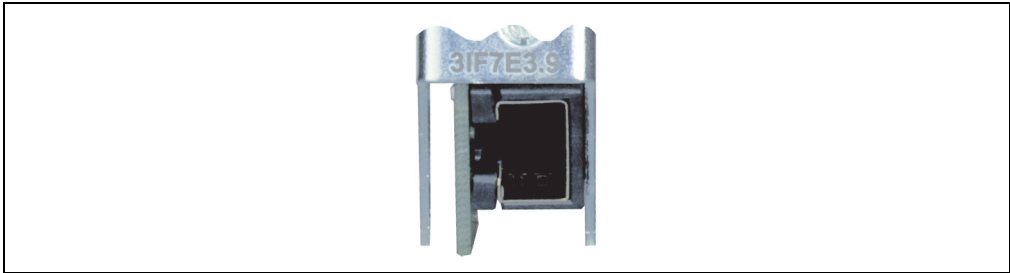


Figure 2: 3IF7E3.9 - PROFINET RT interface (IF1)

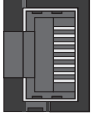
Interface	Pin assignments	
	Pin	Ethernet
Application interface PROFINET RT  Shielded RJ45 port	1	RxD   Receive data
	2	RxD\   Receive data\
	3	TxD   Transmit data
	4	Termination
	5	Termination
	6	TxD\   Transmit data\
	7	Termination
	8	Termination

Table 5: 3IF7E3.9 - Pin assignments for PROFINET RT interface

### 1.7.1 Wiring guidelines for modules with Ethernet cable

The POWERLINK cable available from B&R can be used to wire an Ethernet-based bus system.

Model number	Connection type
X20CA0E61.xxxx	Connection cable - RJ45 to RJ45
X67CA0E41.xxxx	Attachment cable - RJ45 to M12

Table 6: POWERLINK cable with RJ45 connection

The following wiring guidelines must be observed:

- Use CAT5 SFTP cable
- Do not exceed the cable flex radius (observe data sheet for cable)
- Attach cable below the module. The cable must be secured vertically under the RJ45 socket on the module.

## Information:

**When the POWERLINK cables offered by B&R (X20CA0E61.xxxx and X67CA0E41.xxxx) are used, the requirements of product standard EN61131-2 are met.**

**For any further requirements, the customer must take additional measures.**

## 1.8 Firmware

The firmware is a component of Automation Runtime. The module is automatically changed to this version.

To update the firmware included in Automation Studio, a hardware upgrade must be carried out (see Online Help "Project Management - Automation Studio Upgrade").