

UNIGYR®

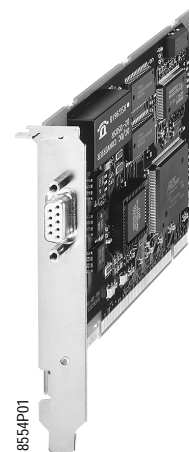
## PROFIBUS cards

Models with PCI and PC card (PCMCIA) interfaces

## CP5511 CP5611



CP5511



CP5611

**PROFIBUS cards for hardware and software connection between UNIGYR plants with BLN bus and PC operator stations for the following programs:**

- UNIGYR Insight for operation, display, and recording
- UNIGYR Design for plant configuration

**Two models are available:**

- PROFIBUS card with PCI interface for desktop PCs
- PROFIBUS card with PC card (PCMCIA) interface for laptop PCs

**Remote operation by using the telephone network via modem:**

- Software features of the cards allow for operation via modem
- Connection by using the standard COM port on the PC
- Connection of another modem by using a second COM port

### Use

- Local communication with up to 30 process units via PROFIBUS
- Remote communication with up to 100 process units via modem and telephone network
- Registration of process data
- Second modem interface for two to five telephone segments, depending on the communication volume and the amount of registration data

### Note

In communications technology, the term **segment** denotes the subscribers of a network that are connected to the same bus. In UNIGYR, the subscribers are the process units, the PC operator station UNIGYR Insight, and the PC program tool UNIGYR Design. With UNIGYR, the maximum number of subscribers per segment is 32. Just one subscriber connected to the bus represents a special case.

In UNIGYR, when a segment is linked to the system or PC station through the telephone network using a modem, the segment is referred to as a **telephone segment**. A segment connected directly to the PC station via PROFIBUS is called a **local segment**.

The number of subscribers connected to the communications network primarily depends on the type of communication software used.

## Functions

### PC interface

Connects a PC to UNIGYR process units via the PROFIBUS (RS-485) interface.

### Communication with "UNIGYR Insight"

Using the "UNIGYR Design" and "UNIGYR Insight" software packages, communication via a PC operator station provides the following options:

- Connection to up to 30 universal process units via PROFIBUS
- Remote operation of process units
- Visualisation of dynamic pictures:  
Presentation of plant diagrams with current statuses and intervention options
- Alarm handling at the centre:  
Signalling, acknowledging and printing alarms
- Transmission and evaluation of the process data saved on the communication card
- Uploading/downloading the plant configuration for engineering purposes, i.e., reading, altering, and reloading the configuration.

### Communication with "UNIGYR Insight" via telephone network

The software features of the cards allow for remote plant operation and supervision using "UNIGYR Insight" via the public telephone network.

### Note

For a summary of the functions available in connection with the "UNIGYR Insight" and "UNIGYR Design" communication software, refer to the data sheets on the process units and/or the corresponding communication cards.

## Type summary

PROFIBUS card with PCI interface to connect a desktop PC to the BLN bus for "UNIGYR-Insight".	<b>CP5611</b>	8554
PROFIBUS card with PC card interface (PCMCIA) to connect a laptop PC to the BLN-Bus for "UNIGYR-Insight"	<b>CP5511</b>	8554

### Delivery

PROFIBUS cards are delivered with hardware installation instructions. The software to operate the PROFIBUS cards is contained in the UNIGYR PC software.

### Accessory

For an overview, refer to data sheet 8961 "Bus and communication accessories".

## Equipment combinations

Units	Type	Data sheet
Communication cards for the universal process unit PRU2...	<b>PEC1...</b>	8275
Communication module for the standard process units PRU10.64 and PRS10.82	<b>PAC10.1U...</b>	8274
PROFIBUS junction box	<b>PLU1.X01</b>	8961
BLN bus terminator	<b>PUR1.1U</b>	8961
PROFIBUS repeater to compensate for line losses	<b>PLR1.1</b>	8923

## Technical design

### PCI card

A floating RS-485 interface is used as physical coupling between PC and PROFIBUS.

The PCI card is designed for a maximum PCI bus clock of 33 MHz.

### PC-Card (PCMCIA)

The PC card does not consume power from the laptop if the adapter is disconnected; the supply voltage is fed via the adapter.

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## Mechanical design

### PROFIBUS PCI card

Designed in the short-sized PCI card standard, for use in desktop PCs. The card front features the 9-pin D-sub socket connector for the PROFIBUS, and an LED to indicate data communication. The card does not contain any setting elements.

### PROFIBUS PC card (PCMCIA) with adapter

Designed to the PC card standard, type 2 (thickness 5 mm), for use in laptop PCs. Plug-in adapter with a short cable for electrical and mechanical bridging between the PC card connector and the 9-pin D-sub connector for the PROFIBUS cable.

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## Engineering notes



The basic document Z8021 "UNIGYR System Manual" and data sheet 8023 "Building Level Network" contain general engineering information on communication. Please read the data and pay special attention to all safety information and precautionary measures.

### Intended use

In an overall system, use this card only for applications as described on the title page (bold print) and in sections "Use", "Engineering notes", and "Technical data".

### Second modem interface

Depending on communication volume and amount of data to be registered, we recommend using a second modem on the second PC COM port when two to five telephone segments are used.

### Interface coupling

The PROFIBUS interface signals are **galvanically separated** from the system electronics, except for the cable screens.

### Line length

For permissible line lengths of the PROFIBUS, refer to "Technical data" and to data sheet 8023 "Building Level Network".

### Accessories

The communication and modem accessories described in data sheet 8961.

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## Installation notes

Hardware installation instructions are delivered with the PROFIBUS cards. There are no hardware elements to be set on the PROFIBUS cards.

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## Commissioning notes

- The PC card (PCMCIA) can only be commissioned when its adapter is connected and power is supplied through it.
- Both cards feature Plug & Play capability with Windows 95.
- The software-related commissioning of the communication is described in the document Z8021 "UNIGYR System Manual".

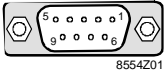
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## Technical Data

<b>Supply</b>	Supply voltage	DC +5 V +/-5%
	Safety extra-low voltage SELV as per	HD 483
	Current consumption	
	PCI card	0.5 A
	PC card (PCMCIA)	0.36 A (typical 0.27 A)
	Power dissipation	
<b>Functional data</b>	PCI card	2 W
	PC card (PCMCIA)	1.8 W
	Transmission rate	9.6 kilobit/s ...12 megabit/s (theoretical, limited by application)
<b>Interfaces</b>	<b>PROFIBUS interface:</b>	
	Physical layer	PROFIBUS as per DIN 19 245
	Interface type	RS-485 as per EIA
	Transmission mode	
	Data bit synchronisation	start/stop bit
	Data bit	8
	Parity	1 (even)
	Stop bit	1
	Bit code	NRZ
	Baud rate	93.75 kilobaud
	Interface coupling	
	PCI card	Floating
	PC-Card (PCMCIA)	Floating
	<b>Hardware interface to the PC:</b>	
	PCI card	32 bit PCI bus (PCI V2.1) bus clock max. 33 MHz
	PC-Card (PCMCIA)	PC card type 2 as per PCMCIA standard
<b>Wiring connections</b>	Connection facility	D-Sub connector, 9-pins
	Line length per strand	1200 m (refer to data sheet 8023 "BLN bus")
	with PROFIBUS repeaters	4800 m max.
	Cable type	refer to data sheet 8023 "BLN bus"
<b>Environmental conditions</b>	Operation	Class 2K3 to IEC 721-3-2
	Temperature	+5° C...+40° C
	Humidity	max. 80 % r.h. at 25° C
	Transport	Class 2K3 to IEC 721
	Temperature	-20° C...+60° C
	Humidity	max. 95 % r.h. at 25° C
<b>Standards</b>	Electromagnetic compatibility	
	Emission	EN 50 081-1
	Immunity	EN 50 082-2
	<b>CE</b> Conformity	89/336/EEC
<b>Dimensions</b>	PCI card (H x D)	102 x 130 mm
	PC card (H x W x D)	85 x 54 x 5 mm
	Adapter with Sub-D connector (L x W x H)	106 x 47 x 25 mm
	Cable length without plugs	approx. 20 cm
<b>Weight</b>	PCI card	ca. 100 g
	PC card without adapter	30 g
	with adapter	135 g

## Connection diagram

Pin assignment at the PROFIBUS socket connector

	Signal name	Description	Input/output
<b>Pin 1</b>	not connected		—
<b>2</b>	not connected		—
<b>3</b>	B (RxD/TxD-P)	Data line B	Input/output
<b>4</b>	RTS_AS	Hand shake lead for PLC direct connection	Input
<b>5</b>	Ground (0 V)	Data reference potential	—
<b>6</b>	+5 V *)	Supply voltage (positive) for bus termination resistors	—
<b>7</b>	not connected		—
<b>8</b>	A (RxD/TxD-N)	Data line A	Input/output
<b>9</b>	RTS_PG	Signal for send enable	Output
<b>Housing</b>	PE	Shield terminator	—

\*) The supply voltage carried by the D-sub connector (pin 6) is used only for supplying power to the bus terminators; the maximum permissible load is 10 mA.

