

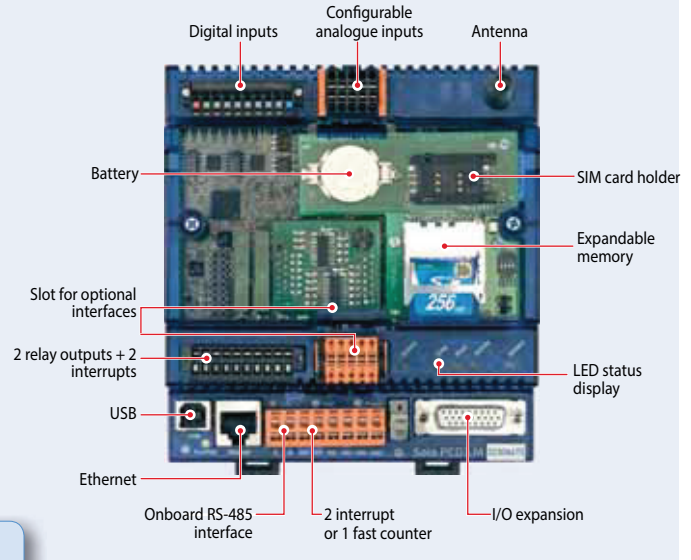
## 1.2.5 Saia PCD3.M2330A4Tx Wide Area Controller

Saia PCD3 Wide Area Controllers are fully programmable, industrial control and automation devices with web, IT and telecommunications functions. Its potential uses therefore extend much further than those of classic RTU stations, which are normally only suitable for alarm monitoring with remote alarms and data logging. The PCD3 Wide Area Controller is also suitable for sophisticated control tasks.



### System properties

- ▶ Fully programmable with PG5
- ▶ Compact dimensions: 130 × 140 × 74 mm (W × H × D) (without antenna)
- ▶ Management of historical data with up to 1 GB flash memory
- ▶ Integral telecommunications interface (PSTN, GSM/GPRS)
- ▶ Constantly accessible owing to redundant communication
- ▶ 14 inputs/outputs contained in the base unit



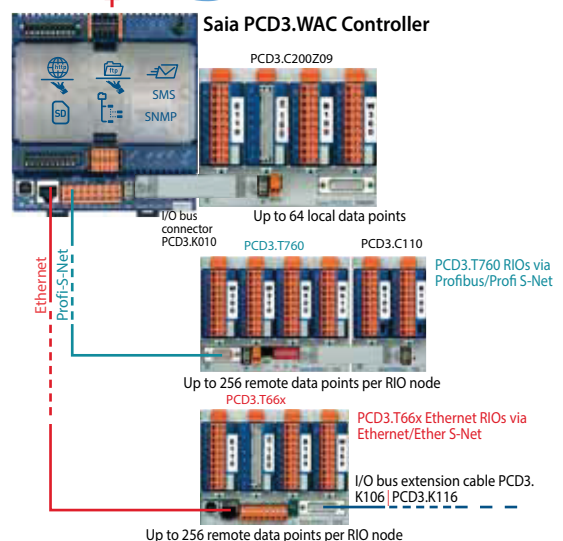
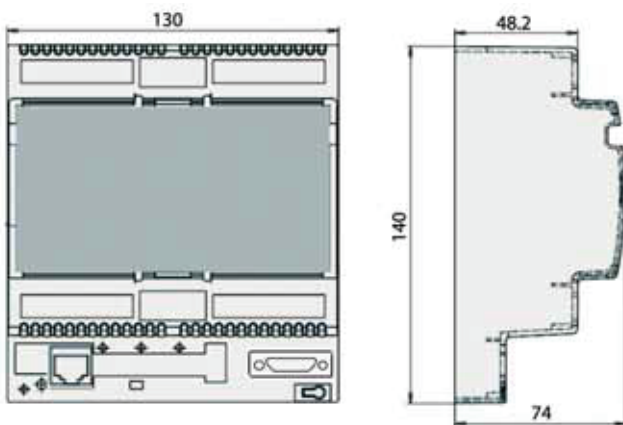
### Onboard inputs/outputs

I/O data points	Properties
8 digital inputs + 2 interrupts	15...30 VDC
2 relay outputs	DC 2 A/50 V, AC 6 A/250 V
4 configurable analogue inputs	-10...+10 VDC, 0...±20 mA, Pt/Ni1000, Ni1000 L&S, 0...2500 Ω

### Onboard interfaces

Interface	Transmission rate
RS-485 (serial) on terminal block for free protocols or Profi S-Net / Profibus-DP Slave	≤ 115.2 kbits ≤ 187.5 kbits
Ethernet TCP/IP	10/100 Mbits
USB 1.1 (PGU)	

### Dimensions



1 Automation stations

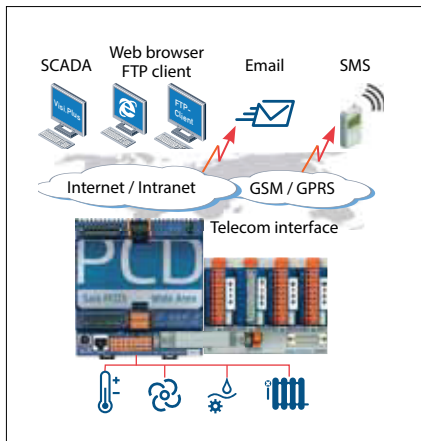
2 Operation and monitoring

3 Dedicated room controllers

4 Consumer data acquisition

5 Switch cabinet components

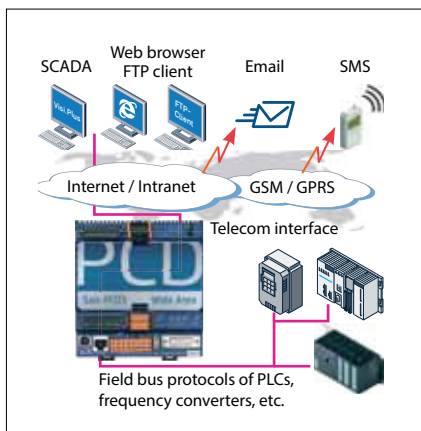
## Examples of applications



### ► PCD3.WAC as an RTU controller

Send SMS messages and emails through the GSM/GPRS network. Use the PCD3.WAC with local I/Os to send messages, statuses or alarms to the SCADA system or to the end user via email and SMS.

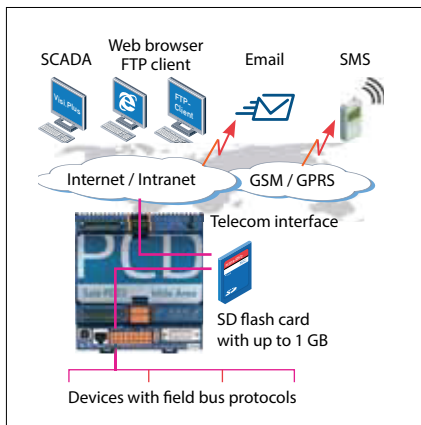
Via integrated web and FTP servers can link external stations easily over Intranet and Internet. The integrated web server also permits access to external stations via standard web browsers.



### ► WAC communications gateway

The Saia PCD3.WAC can be used for non-SBC systems as a communications gateway to Internet or Intranet applications with integrated protocols such as FTP, HTTP or using open data modes, Ethernet or a serial interface.

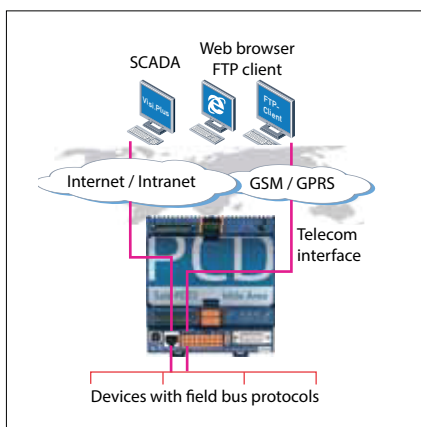
Many field bus protocols are supported at the field level, such as Modbus TCP/RTU/ASCII, EIB, M-Bus, etc.



### ► Ready for data management:

With up to 1 GB of memory, the Saia PCD3.WAC has enough memory to store data received from the field level over a long period. These data can be processed directly by the Saia PCD® and then transferred to the management or upstream monitoring systems by email, FTP, HTTP or data communication. This makes the Saia PCD3 Wide Area Controller independent of management stations and therefore suitable as a data concentrator.

Remote operation and control have various applications for taking measurements, monitoring the status of systems and the relevant transfer of data.



### ► Permanently available owing to redundant communication

Bridging geographical distances is often a requirement for systems with a large number of distributed stations. With integrated telecommunications interfaces (GSM/GPRS, PSTN or ISDN) and an Ethernet interface, the Wide Area Controller is permanently available via its telecommunications interface and Ethernet port. Redundant communication paths (telecommunications or Ethernet interface) increase the reliability and availability of the system.

## Performance overview, ordering information and accessories

### Processor technology

RAM as program memory	512 kByte
Backup memory (flash)	512 kByte
Memory for file system (flash)	1 MB (onboard)
PCD media	8192 flags, 16,384 × 32-bit register

### Telecom communication interface (alternatively integrated interfaces)

GSM / GPRS / PSTN / ISDN / SMS – sending and receiving

### Internet and Intranet protocols

HTTP server	Visualisation with web browser and web panel
FTP Server	Easy data exchange
TCP/IP-PPP point-to-point protocol	Efficient communication
SMTP client	Sending emails with files (e.g. log files) as attachments
DHCP and DNS client	Easy integration in IP networks
SNTP client	Synchronisation of the internal clock
SNMP agent	Network management

### Field level protocols

Serial S-Bus, Ether S-Bus and Profi S-Bus

MODBUS RTU or TCP EIB M-Bus IEC 870-5-101/103/104

For other protocols please refer to Chapter B2

### Order type

PCD3.M2330A4T1	with PSTN modem
PCD3.M2330A4T5	with GSM/GPRS modem (without antenna)

### Additional data storage

Slot for SD flash cards	SBC SD card with up to 1 GB file system
Data files up to 900 files with file system	Download and upload via ftp
PCD7.R-SD512	SBC SD flash card, 512 MB with file system
PCD7.R-SD1024	SBC SD flash card, 1024 MB with file system

### Communication interfaces for slot A

PCD7.F110S	RS-422 with RTS/CTS or RS-485 electrically connected, with line termination resistors that can be activated. Suitable for Modbus, S-Bus, EnOcean, etc.
PCD7.F121S	RS-232 with RTS/CTS, DTR/DSR, DCD, suitable for modem, EIB, DALI connection.
PCD7.F150S	RS-485 (electrically isolated), with line termination resistors that can be activated
PCD7.F180S	Belimo® MP-Bus, for connecting up to 8 drives on one line

### I/O expansions

PCD3.C110Z09	2 module slots (connection with PCD3.K010 connector or with PCD3.K106/K116 cable)	0 mA
PCD3.C200Z09	4 module slots, with 24 VDC supply (connection with PCD3.K010 connector or with PCD3.K106/K116 cable)	1500 mA / 200 mA (5 V / +V)
PCD3.C110	2 module slots (connection with PCD3.K106/K116 cable only)	0 mA
PCD3.C200	4 module slots, with 24 VDC supply (connection with PCD3.K106/K116 cable only)	1500 mA / 200 mA (5 V / +V)

I/O modules see pages 27 and 28

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