SAIA BURGESS CONTROLS

Saia® PCD3 System
Wide Area Controll

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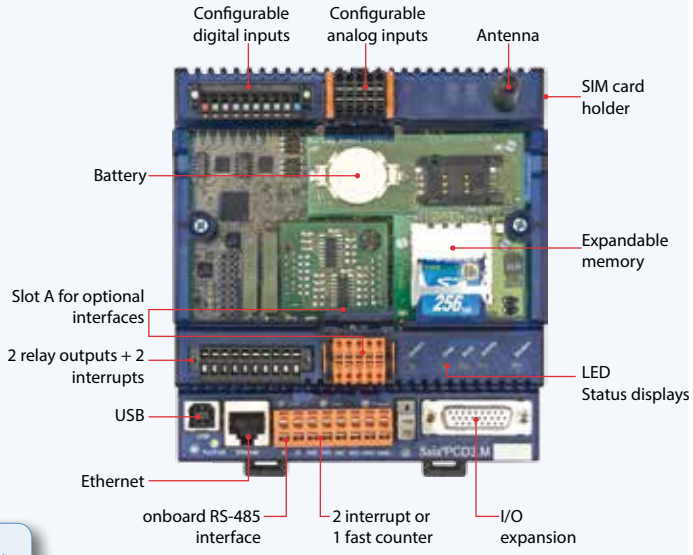
1.2.3 Saia® PCD3.M2330A4Tx Wide Area Controller

Saia® PCD3 Wide Area Controllers are freely programmable, industrial devices for control and automation devices with web, IT and telecommunications functions. Its potential uses therefore extend much further than those of a classic RTU station, which is 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

- Freely programmable with PG5
- Compact dimensions: 130 × 140 × 74 mm (W × H × D) (without antenna)
- Management of historical data with up to 1 GByte flash memory
- Integral telecommunications interface (ISDN, PSTN, GSM/GPRS)
- Always accessible, thanks to redundant communication
- 14 inputs/outputs already in base unit



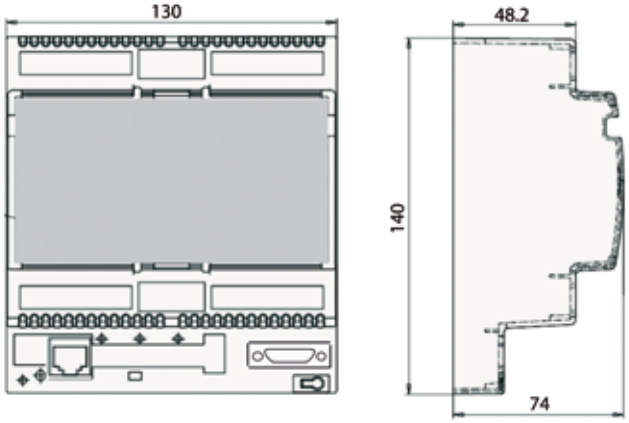
On-Board inputs/outputs

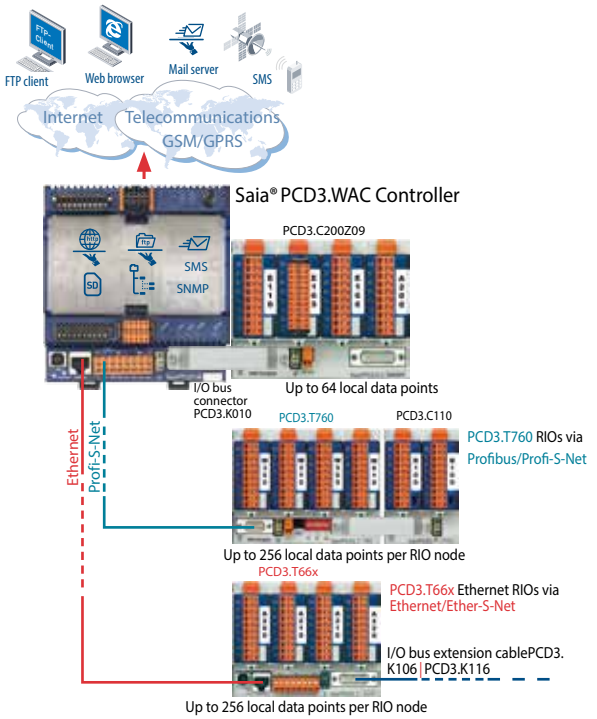
I/O data point	Properties
8 digital inputs + 2 interrupts	15…30 VDC
2 relay outputs	DC 2 A/50 V, AC 6 A/250 V
4 configurable analog inputs	–10…+10 VDC, 0…±20 mA, Pt1000, Ni1000, Ni1000 L&S, 0…2.5 kΩ

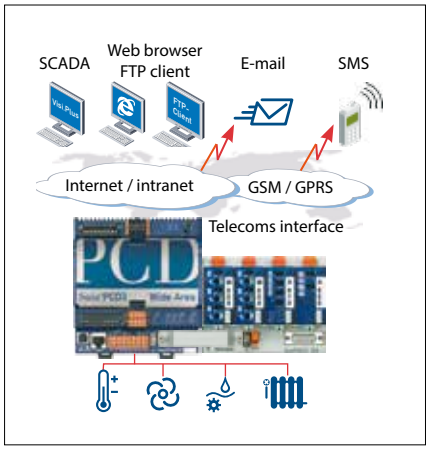
On-Board interfaces

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

Dimensions

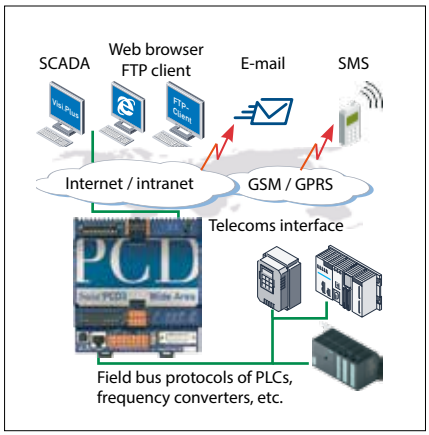






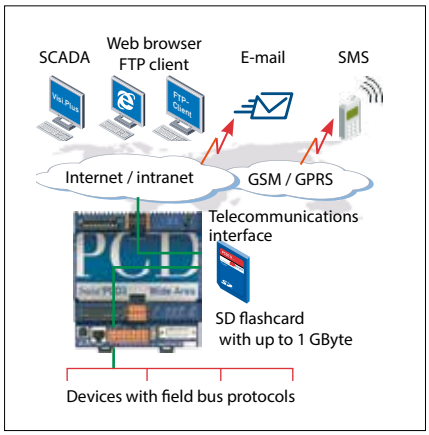
PCD3.WAC as RTU controller

Send SMS messages and emails through the GSM/GPRS network. Use the PCD3.WAC with local I/Os and send messages, statuses or alarms to the SCADA system or, by email and SMS, to the end user.
Via integrated web and FTP servers, external stations are easily brought together across internet and internet. The integrated web server also permits access to external stations via standard web browsers.



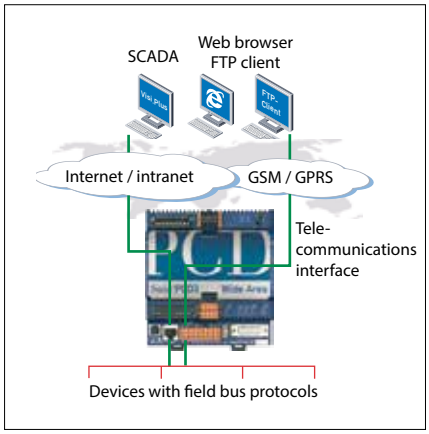
WAC communications gateway

With integrated protocols such as FTP, HTTP, or by using open data modes, Ethernet, or a serial interface, the Saia® PCD3.WAC can be used for non-Saia® systems as a communications gateway to Internet or intranet applications.
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 GByte of memory, the Saia® PCD3.WAC has enough memory to store data received from the field level over a long period. This data can be processed directly by the Saia® PCD and then transferred to the management or upstream monitoring systems by e-mail, FTP, HTTP or data communication. This makes the Saia® PCD3 Wide Area Controller independent of management stations and therefore suitable as a data concentrator.
Many potential uses can be found with remote operation and control wherever measurements have to be taken, the statuses of systems monitored, and the relevant data transferred.



Always available, thanks 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

CPU technology

RAM as program memory	512 kByte
Back-up memory (flash)	512 kByte
Memory for file system (flash)	1 MByte (onboard)
PCD media	8,192 flags, 16,384 × 32-bit register

Telecom communication interface (alternatively integrated interfaces)

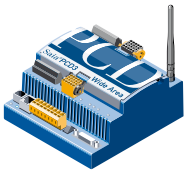
GSM / GPRS / PSTN / ISDN / SMS – sending and receiving

Internet and intranet protocols

HTTP server	Visualization with web browser and web panel
FTP server	Easy exchange of data
TCP/IP-PPP Point-to-Point Protocol	Efficient communication
SMTP client	Sending e-mails with files (e.g. log files) as attachments
DHCP and DNS client	Easy integration into IP networks
SNTP client	Synchronization 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 section B2



Types

PCD3.M2330A4T1	with PSTN modem
PCD3.M2330A4T3	with ISDN modem
PCD3.M2330A4T5	with GSM/GPRS modem (without antenna)
PCD3.M2230A4T5	with GSM/GPRS modem, without Ethernet (without antenna)

Additional data storage

Slot for SD flashcards	Saia® SD card with up to 1 GByte file system
Data files with up to 900 files with Saia® file system	Download and upload via ftp
PCD7.R-SD512	Saia® SD flashcard, 512 MByte with file system
PCD7.R-SD1024	Saia® SD flashcard, 1024 MByte with file system

Communication modules for slot A

PCD7.F110S	RS-422 with RTS/CTS or RS-485 electrically connected, with line termination resistors capable of activation. 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 capable of activation,
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 / 630 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 / 630 mA (5 V / +V)

I/O-modules see pages 27 and 28