Wide Area Automation Saia PCD3 WideArea Controller with Web, IT and Telecom functions

The Saia PCD3 Wide Area Controllers are free programmable industrial control devices with Web, IT and Telecom functions. They are not just compact in size, but also in the way they pack all-in-one functionality into the smallest possible space. Power and flexibility are provided by integrated communications interfaces (GSM/GPRS/PSTN or ISDN) with an efficient IT interface plus a processor and ample memory. Devices also offer SD card data memory, integrated inputs and outputs that can be expanded with external I/O modules, and a versatile interface to the field level.

Bridging geographical distances is often a requirement for systems with a large number of external stations. Via integrated web and FTP servers, external stations are easily brought together across internet and intranet. The integrated web server also permits access to external stations via standard web browsers.

Easy, expandable device configurations allow external stations to be commissioned without any programming knowledge. Pre-defined control components for alarm, message and data logging applications guarantee continuous, error free functionality. At all times, specific functions can be implemented with using the Saia PG5® programming environment (FUPLA, IL, GRAFTEC).

Many potential uses can be found wherever measurements are taken, transferred or monitored, wherever states are monitored and reported, and wherever remote operation and access are required (for example, during service work). Areas of application might be: long-distance energy systems, drinking water supply, rain basins, water treatment, solar and wind energy stations, or even simple alarm and reporting functions in building automation.

Latest CPU technology

RAM as user program memory	512 KByte
Flash memory as backup memory	512 KByte
Flash memory for file system	1 MByte (on board)
Operating system	Saia PCD® COSinus operating system
PCD medias	88192 Flags / 16'384 × 32 bit registers

Data storage

Integrated SD card slot for	SBC SD card with up to 1 Gbytes file system
Writing cycles	600'000
Data files	Download and upload via ftp
Up to 1000 files with SBC file system	

Configuration and programming tools

Html Configuration pages for alarming and data logging,	
Programming tool Saia PG5® for PLC applications (IL, FUPLA und GRAPHTEC)	

Telecom communication interfaces

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

Internet and Intranet protocols

HTTP server	Visualization with PC web browser and Saia PCD® Web Panel
FTP server	Easy file exchange
TCP/IP- PPP Point to Point Protocol	Efficient communication
SMTP client	Send Emails with files attachements (e. g. log data)
DHCP and DNS client	Easy connection to IP networks
SNTP client	Internal clock synchronization
SNMP server/client	Network management

Field level communication interfaces

Onboard interfaces	Ethernet and USB, RS-485
Socket A for optional interface	RS-232, RS-422/485 (PCD7.F110S, PCD7F121S, PCD7.F150S*, PCD7.F180S)

* the maximum ambient temperature of operation will be reduced by 5 ℃

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 SBC documentation	

I/0 Data points

8 Digital Inputs + 2 Interrupt	15…30 VDC
2 Relay Outputs	DC 2 A/50 V, AC 6 A/250 V
4 Analog inputs configurable	−10…+10 VDC or 0…±20 mA, Pt1000, Ni1000, Ni1000 L&S, 0…2.5 kΩ
I/O Extension	PCD3.C110Z09 or PCD3.C200Z09
Additional remote I/O's	PCD3.T760 via Profi-S-IO, PCD3.T66x Ethernet-RIO

General data

Supply voltage	24 VDC, −20 / +25% incl. 5% ripples
Watchdog relay make contact	48 VAC or VDC [1] 1 A
Battery (exchangeable)	Lithium battery with lifetime of 1 to 3 years
Ambient temperature operating system	0…50 ℃
Compact size (W × H × D)	130 × 140 × 74 mm
Type of mounting	Top-hat rail according to DIN EN 60 715 TH35 (formerly DIN EN 50 022) (1 × 35 mm)
Protection level	IP 20

[1] mount a free-wheeling diode over the load when switching DC tension

Ordering information

Type	Description
PCD3.M2330A4T1	with PSTN modem
PCD3.M2330A4T3	with ISDN modem
PCD3.M2330A4T5	with GSM/GPRS modem*
PCD3.M2230A4T5	with GSM/GPRS modem, without Ethernet*

* without Antenna

Accessories

Type	Description
PCD3.K010	Extension plug
PCD3.C110Z09	Modul holder with 2 module slots
PCD3.C200Z09	Modul holder with 4 module slots
PCD7.K840	Antenna