

Saia PCD1.M2

Second generation of the smallest base platform



The smallest, most flexible platform in the Saia PCD® family is the base for freely programmable, industrial control and automation devices that meet PLC quality standard IEC 61131-2 and include a fully integrated automation server (web and IT functionality).

Compact outside

The shape of the Saia PCD1.M2 was specifically developed to be simple and functional. The CPU board with integral I/Os was incorporated into a flat base component. An easily removable cover allows for simple installation and fast commissioning. With its small depth of only 50 mm, the Saia PCD1.M2 is also a good fit wherever space is limited. Its large surface area also offers ample space for clear labelling of I/O connections. The USB port allows for fast, reliable on-site service operations.

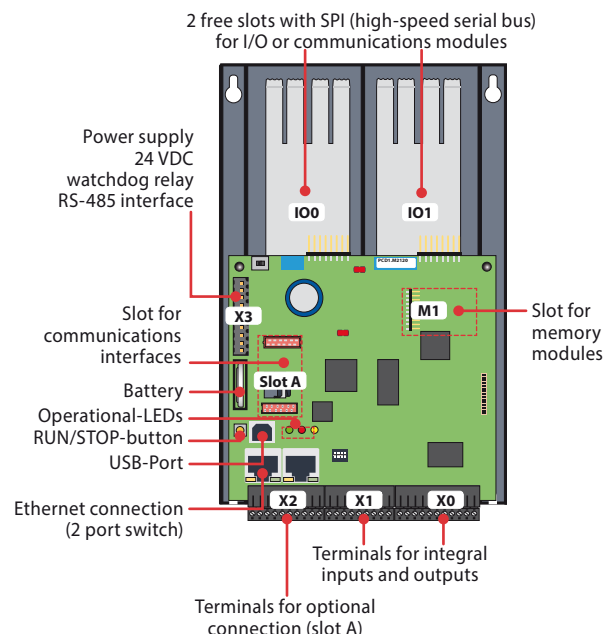
Modular inside

The Saia PCD1.M2 series is a small controller with integral I/Os and two free I/O slots for optional plug-in I/O modules from the PCD2 range. For expansion, plug-in communication modules provide great flexibility. The web/IT functionality, onboard memory and a variety of standard communication interfaces and expansion options offer good solutions for small to medium installations.

Flexible automation

At no additional cost, the automation server also allows smaller automation solutions to be integrated into higher-level systems. The Saia PCD1.M2 can even be used like a RIO (remote I/O) station with on-site control functionality. The I/O configuration of the PCD1 is easily extended with specific connections to RIO stations via RS-485 and Ethernet. This means that more complex systems using network automation are also feasible.

Device structure (without housing cover)



Technical Data

Types PCD1.	M2160	M2120	M2020
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General data

Operating system	Saia PCD COSinus		
Power consumption	typically 12 W		
Supply voltage	24 VDC, -20/+25% max. incl. 5% ripple (according to EN/IEC 61131-2)		
Capacity 5V/+V(24 V) internal	max. 500 mA/200 mA		
Operating temperature	0...55 °C		
Battery for data backup (exchangeable)	Lithium battery with a service life of 1 to 3 years		
Dimensions (W x H x D)	142 x 226 x 49 mm		
Protection level	IP 20		
Type of mounting	2x top-hat rails according to DIN EN60715 TH35 (2 x 35 mm) or on a flat surface		

On-Board inputs/outputs

6 Digital inputs (4 + 2 interrupts)	15...30 VDC, 8 ms / 0.2 ms inputs filter		
4 Digital outputs	24 VDC, 0.5 A		
4 Digital inputs or outputs	24 VDC (techn. data see digital in- /output)		
1 PWM-output	24 VDC, 0.2 A		
1 Watchdog relay or make contact	48 VAC or VDC, 1 A (mount a free wheeling diode over the load when switching DC-tension)		
2 Analog inputs, selectable via DIP switch	-10...+10 VDC, 0...±20 mA, Pt1000, Ni1000, Ni1000 L&S, 0...2.5 kΩ, 12 Bit		
Data point extension	with free I/O-Slots or I/O-RIOs		

Memory and file system

Program memory, DB/Text (Flash)	1 MByte	512 KByte	
User memory, DB/Text (RAM)	1 MByte	128 KByte	
User flash files system onboard	128 MByte	8 MByte	
Additional data memory	over slot M1 with PCD7.R5xx		

Integrated communication

Ethernet connection (2 port switch) 10/100 Mbit/s, full-duplex, auto-sensing, auto-crossing	yes	yes	no
USB connection (USB 1.1 device, 12 Mbit/s)	yes	yes	yes
RS-485 ((terminal X3), up to 115 kbit/s)	yes	yes	yes

Field level communication protocols

Onboard interfaces	Ethernet (2 port switch), USB and RS-485		
Onboard field level protocols	Serial-S-Bus, Ether-S-Bus and Profi-S-Bus, Modbus RTU or TCP, EIB, M-Bus		
Optional interfaces in I/O-Slot	PCD2.F2xxx (with integradet Slot A for PCD7.F1xxS Module)		
Slot A for optional interfaces	RS-232, RS-422/485, Belimo MP-Bus (PCD7.F1xxS)		
Slot M1 for extension protocols	LON over IP (PCD7.R56x Modul) BACnet® (PCD7.R58x Modul)	no	

Internet and Intranet protocols

DHCP and DNS Client	easier integration in IP-Networks		
FTP Server	easier Data exchange		
HTTP Server	Visualisation with Web-Browser and Web-Panel		
SMTP Client	E-Mails send files as attachments (f.e. Log-Dateien)		
SNTP Client	Synchronization of internal clock		
TCP/IP-PPP (Point to Point Protocol)	Efficient communication		

Ordering information

PCD1.M2020 without Ethernet
PCD1.M2120 with Ethernet
PCD1.M2160 with Ethernet and additional memory

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