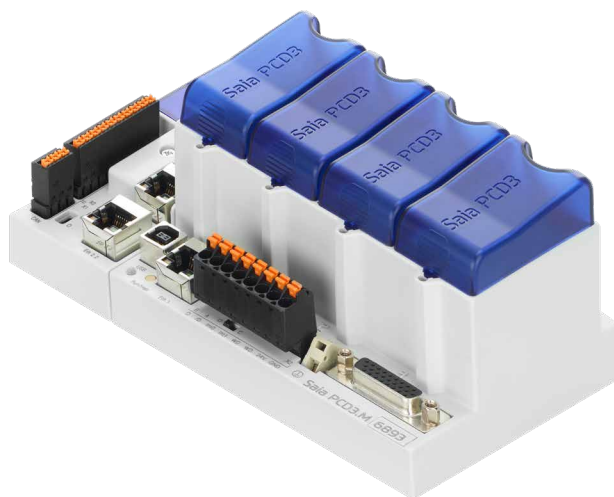


Saia PCD3.M6893

IEC Controller

Cyber Secure, IEC 61131-3



The programming language according IEC 61131-3 is well known in industrial controls environment. The Structured Text (ST) high level language comes along with a strong syntax and supports object oriented methods. The most recent cyber security level (ANSI ISA 62443 – SL3/SL4) enables the use in mission critical and IoT / Cloud applications. This compact modular PLC provides integrated USB, Ethernet, RS-485, CAN and is compatible to the modular and robust I/O System from the Saia PCD3 family.

Maximum peripheral connections

- ▶ Up to 1023 central inputs/outputs with expansion module holder
- ▶ Additional remote inputs/outputs via Modbus IP with PCD controller and I/O modules

PCD3 I/O modules in cassette form

(PCD3.Axxx/ .Exxx/ .Wxxx/ .Bxxx/ .Hxxx)

- ▶ More than 50 I/O modules available with different functionalities, see order details
- ▶ Status of digital signals indicated via LEDs
- ▶ Configurable process image via System Configuration software
- ▶ Connector for I/O Extension PCD3.C200

Efficient SBC programming tools

Learn more at www.sbc-support.com

- ▶ IEC programming software from SBC with integrated System- and Account Management Configuration and comprehensive application components make programming convenient and efficient
- ▶ A coordinating combination of operating system and programming tool achieves maximum speed, reliability and functionality

General technical data / Operating conditions

Power supply

Supply voltage (according EN/IEC 61 131-2)	24 VDC –20 / +25%, incl. 5% ripples
Current / Power consumption	typ. 175 mA / 4.2 W, max. 500 mA / 18 W
Load-carrying ability 5 V / 24 V internal	max. 600 mA / 100 mA
Short voltage interruption (according EN/IEC 61 131-2)	≤ 10 ms with interval ≥ 1 s
Watchdog relay closing contact	48 VAC or VDC ¹⁾ , 1 A

Environmental influences

Storage temperature (according EN/IEC 61 131-2)	–25...+70 °C
Ambient temperature operating (according EN/IEC 61 131-2)	0...+55 °C ²⁾ or 0...+40 °C (depending on mounting situation)
Relative air humidity (according EN/IEC 61 131-2)	10...95 % r.h., non condensing

Mechanical data

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
Flame resistance	UL 94 V0
Vibration (according EN/IEC 61 131-2)	3.5 mm / 1.0 g sinusoidally
Shock (according EN/IEC 61 131-2)	15 g / 11 ms sinus half wave

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

²⁾ when assembling on vertical surface, all other mounting methods 0...40 °C

Connections

	Pin	Signal	Explanation
	1	D	Port #2 RS-485 up to 115.2 kbit/s usable as free user interface or Profi-S-Bus up to 187.5 kbits/s
	2	/D	
	3	Int0	2 interrupt inputs 24 VDC or 1 rapid counter 24 VDC
	4	Int1	
	5	WD	Watchdog
	6	WD	
	7	+24V	Voltage supply
	8	GND	

RS-485 terminator switch

Switch position	Designation	Explanation
left	O	without termination resistors
right	C	with termination resistors

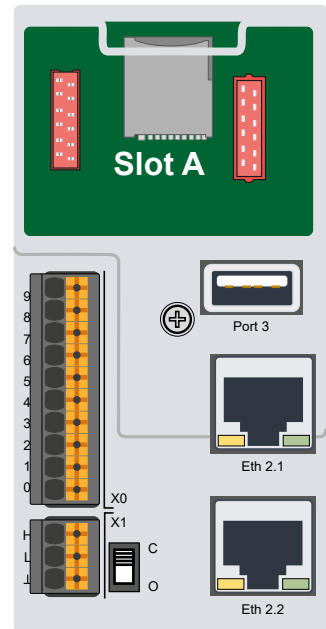
Communication interfaces

- ▶ Ethernet 1 – Single Port, 10/100 MBit/s
- ▶ Ethernet 2 – Two ports switched 10/100 MBit/s
- ▶ USB Device – One port with Remote NDIS driver, a virtual IP port for Programming, Commissioning, Service and Web access
- ▶ USB Host – One port for External Storage Media (Memory Stick) and External Ethernet Adapter for Ethernet Port 3
- ▶ RS-485 – One port, not isolated for general purpose, up to 115.2 kbit/s, on board bus termination switch
- ▶ PCD7.F1xxS – One socket for PCD7.F1xxS communication interface modules
- ▶ CAN – One port, galvanic isolated, supports CAN 20a and 20b, up to 1 MBit/s, on board bus termination switch (120 Ω)

X0 – Communication interfaces: position Slot A

Pin	PCD7.F110S	PCD7.F110S	PCD7.F121S	PCD7.F150S	PCD7.F180S
	RS-485	RS-422	RS-232	RS-485*	Belimo MP-Bus
0	PGND	PGND	PGND	PGND	PGND
1	Rx-Rx	Tx	TxD	Rx-Rx	MP
2	/Rx-/Tx	/Tx	RxD	/Rx-/Tx	"MFT"
3		Rx	RTS		"IN"
4		/Rx	CTS		
5	PGND	PGND	PGND	PGND	PGND
6		RTS	DTR		
7		/RTS	DSR		
8		CTS	COM	SGND	
9		/CTS	DCD		

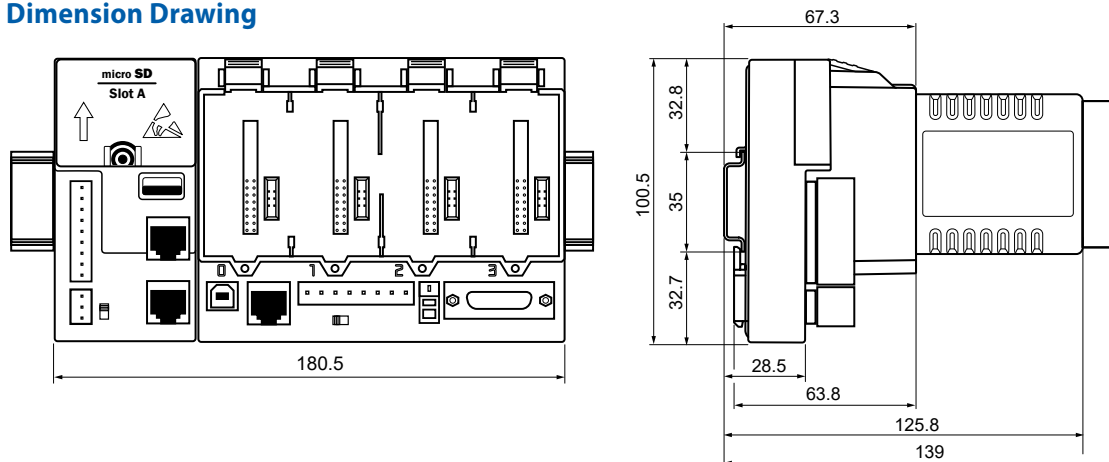
* galvanic isolation



X1 – CAN bus terminal

Pin	Signal
H	CAN_H
L	CAN_L
⊥	CAN_GND

Dimension Drawing





ATTENTION

These devices must only be installed by a professional electrician, otherwise there is the risk of fire or the risk of an electric shock.



WARNING

Product is not intended to be used in safety critical applications, using it in safety critical applications is unsafe.



WARNING - Safety

The unit is not suitable for the explosion-proof areas and the areas of use excluded in EN 61010 Part 1.



WARNING - Safety

Check compliance with nominal voltage before commissioning the device (see type label). Check that connection cables are free from damage and that, when wiring up the device, they are not connected to voltage.



NOTE

In order to avoid moisture in the device due to condensate build-up, acclimatise the device at room temperature for about half an hour before connecting.



CLEANING

The device can be cleaned in dead state with a dry cloth or cloth soaked in soap solution. Do not use caustic or solvent-containing substances for cleaning.



MAINTENANCE

These devices are maintenance-free. If damaged during transportation or storage, no repairs should be undertaken by the user.



GUARANTEE

Opening the module invalidates the guarantee.

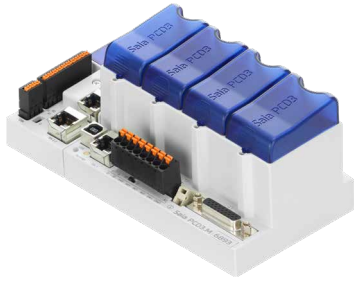


WEEE Directive 2012/19/EC Waste Electrical and Electronic Equipment directive

The product should not be disposed of with other household waste. Check for the nearest authorized collection centers or authorized recyclers. The correct disposal of end-of-life equipment will help prevent potential negative consequences for the environment and human health.



EAC Mark of Conformity for Machinery Exports to Russia, Kazakhstan or Belarus.



PCD3.M6893



8-pin spring terminal block
32341564-001



10-pin spring terminal block
32341217-001



3-pin spring terminal block
32341216-001

Order details

Type	Short description	Description	Weight
PCD3.M6893	CPU base units for 4 plug-in I/O modules	<p>PCD3 controller without battery with 1 GByte RAM and 4 GByte Flash for operating system and user program, 1 Socket for user data micro-SD card, max. 32 GByte, 2 Ethernet, 1 RS-485, 1 socket for PCD7.F1xxS communication modules, 1 USB Device port for programming and service, 1 USB host, 1 CAN port (20a and 20b) 2 interrupt inputs, 1 watch dog relay, extendable up to 1023 I/O.</p> <p>Supported PCD3 - I/O Modules: Starting with firmware 0.0.0.281: PCD3.Ax, ...Ex, ...W3x5, ...W6x5</p>	560 g

Accessories

Type	Short description	Description	Weight
32341564-001	8-pin spring terminal block	Plug-in spring terminal block, 8-pole 0.2...2.5 mm ² (black block)	15 g
32341217-001	10-pin spring terminal block	Plug-in spring terminal block, 10-pole, 0.14...1.5 mm ² (black block), labelled 0 to 9	7 g
32341216-001	3-pin spring terminal block	Plug-in spring terminal block, 3-pole, 0.14...1.5 mm ² (black block), labelled 0 to 2	3 g
4 104 7515 0	Slot cover for unused PCD3 I/O slots	Slot cover for unused PCD3 I/O slots (with SBC logo)	8 g

Saia-Burgess Controls AG

Bahnhofstrasse 18 | 3280 Murten, Switzerland
T +41 26 580 30 00 | F +41 26 580 34 99
www.saia-pcd.com

support@saia-pcd.com | www.sbc-support.com