

# PCD3.M6240

## CAN controller with Profibus DP Slave

The Controller Area Networks (CAN – Specification CAN 2.0B) can be used as an embedded communication system for Microcontroller as well as an open communication system for intelligent appliances. Three different access types to controller functionality can be used simultaneously. «Direct Access» (direct hardware access to the CAN controller), «Basic Services» (simple handling of CAN communication with FBoxes), «Data Mapping» (simplified and automated cyclic exchange of process data).

### Latest CPU technology

- ▶ Sustainable processor technology with 1 MByte RAM for User Program Memory and 1 MByte Flash as Backup Memory on board
- ▶ Compact PLC in combination with the Saia PCD® COSinus operating system
- ▶ USB, RS-232, RS-485 and CAN interface in the base unit. Integrated Web server

### CAN operating modes

- ▶ CAN Direct Access (FullCan): Direct access to all 32 hardware buffers and support of integrated CAN controller functionality
- ▶ CAN Basic Services (Basic CAN): Operating mode analogue to the Basic CAN principle with only one receive and one transmit path
- ▶ CAN Data Mapping: Output messages are cyclically sent and input messages are directly mapped to the process data by the data manager

### General technical data / Operating conditions

#### Power supply

Supply voltage (in accordance with EN/IEC 131-2)	24 VDC, -20/+25% max. incl. 5% ripple or 19 VAC ±15% two-way rectified (18 VDC)
Power consumption	typically 15 W for 64 I/Os
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 <sup>1)</sup> , 1 A

#### Environmental influences

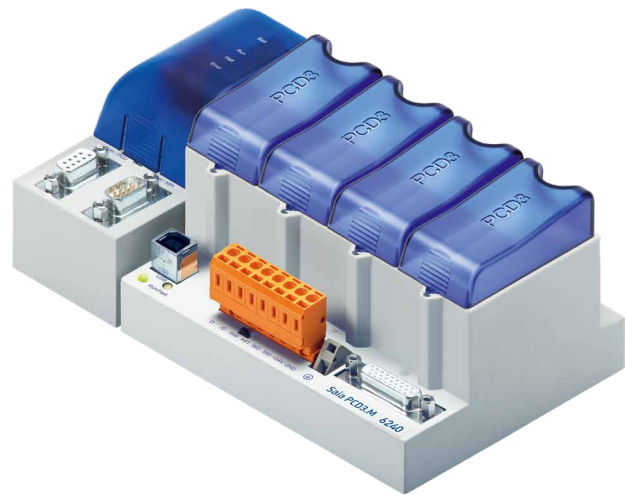
Storage temperature (according EN / IEC 61 131-2)	-25...+70 °C
Ambient temperature operating (according EN / IEC 61 131-2)	0...+55 °C <sup>2)</sup> or 0...+40 °C (depending on mounting situation)
Relative air humidity (according EN / IEC 61 131-2)	10...95 % r.h., non condensing

#### 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

<sup>1)</sup> mount a free-wheeling diode over the load when switching DC tension

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



### Maximum peripheral connections

- ▶ Up to 1023 central inputs/outputs with expansion module holder
- ▶ More than 50 I/O modules in cassette form (PCD3.Axxx/ .Exxx/ .Wxxx/ .Bxxx/ .Hxxx)
- ▶ Additional remote inputs/outputs via Profi-S-IO with same I/O modules

**Efficient SBC programming tools**, for more details see TI PP26-362 or better download software demo version under [www.sbc-support.com/en/product-index/pg5-controls-suite/](http://www.sbc-support.com/en/product-index/pg5-controls-suite/)

- ▶ PG5 from SBC with integrated CAN Configurator and comprehensive application components make programming convenient and efficient
- ▶ A coordinating combination of operating system and programming tool achieves maximum speed, reliability and functionality



I/O modules and I/O terminal blocks may only be plugged in and removed when the Saia PCD® and the external +24 V are disconnected from the power supply.

## Communication interfaces

RS-232/PGU Port #0		Controller Area Network (CAN) (9-pole D-Sub socket) Port #10			
D-Sub Pin	Signal	D-Sub Pin	Signal	Explanation	
1	DCD	1	nc	not connected	
2	RXD	2	CAN_L*	Receive/transmit data negative	
3	TXD	3	GND*	0 V data communication potential, CAN-GND	
4	DTR	4	nc	not connected	
5	GND	5	nc	not connected	
6	DSR	6	GND*	0 V (not connected on prototype)	
7	RTS	7	CAN_H*	Receive/transmit data positive	
8	CTS	8	nc	not connected	
9	nc	9	nc	not connected	

\*) Galvanic isolated signals

PCD3.M6240 CPUs provide a galvanic isolated high-speed 1 MBit/s CAN interface.

These CPUs have the same functions as PCD3.M5540/M5440 CPUs except that the S-Net/MPI interface is replaced by CAN functionality, for more details see CAN Manual (26-839 available on request).

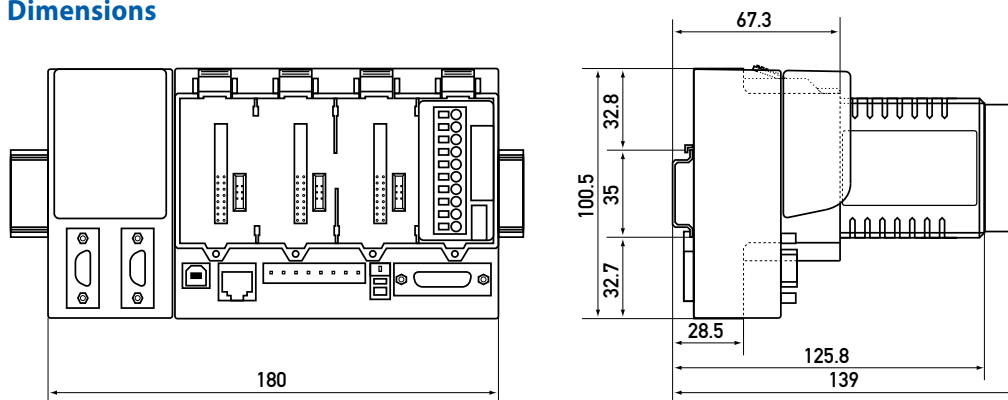


I/O modules and I/O terminal blocks may only be plugged in and removed when the Saia PCD® and the external +24 V are disconnected from the power supply.



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## Dimensions



## Ordering information

Type	Short description	Description	Weight
PCD3.M6240	CPU base units for 4 plug-in I/O modules	PCD3 modular with CAN bus interface 1 MB of user memory with Run/Halt switch Backup option with PCD7.R500 Flash Card, USB port for PG5 max. 1023 digital I/Os, 2 interrupts, Web-Server, RS-232, RS-485 for Profi-S-Net/MPI/S-Bus	580 g

## Accessories

Type	Short description	Description	Weight
4 405 4995 0	8-pin spring terminal block	Pluggable spring block, 8-pin up to 2.5 mm <sup>2</sup> (orange terminal block), for power supply to PCD3.Mxxx0	12 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
4 104 7493 0	Cover for PCD3.M5xxx and ..M6xxx	Blu replacement cover for PCD3.M5xxx and ..M6xxx (left side)	10 g

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