PCD2.C1000

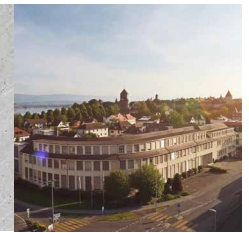## Extension module holder
for 4 I/O modules

Description

The PCD2.C1000 expansion housing provides space for 4 additional I/O modules. The dimensions of the housing correspond to those of the PCD2.M4x60 base unit and in height to the PCD2.M5x40.
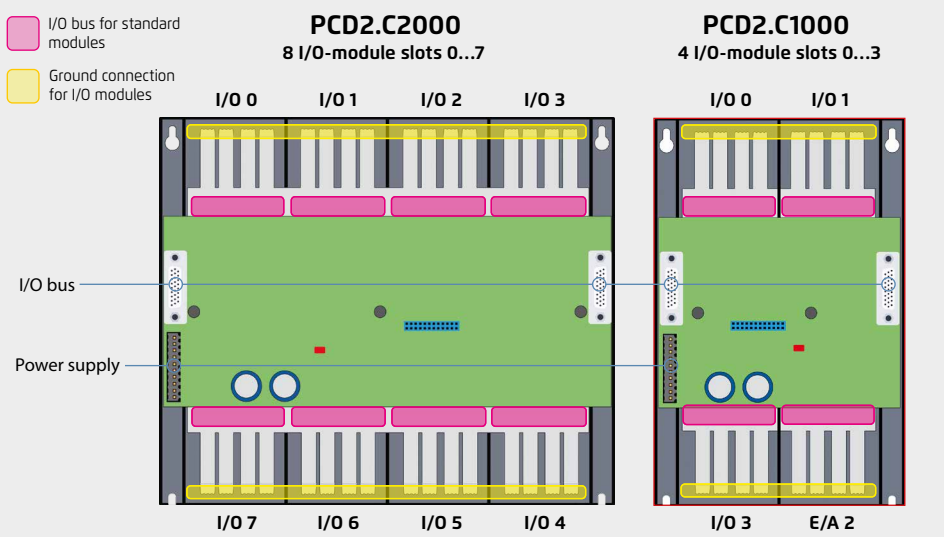
All standard I/O modules can be used in the expansion module holders. Communication modules or other intelligent modules can only be used in the slots of the Basic CPU.

The slots are numbered starting from the upper left slot 0, clockwise to 3.

The connection to each other and to the base unit is made via 26-core extension cables or via the PCD2.K010 connection plug.
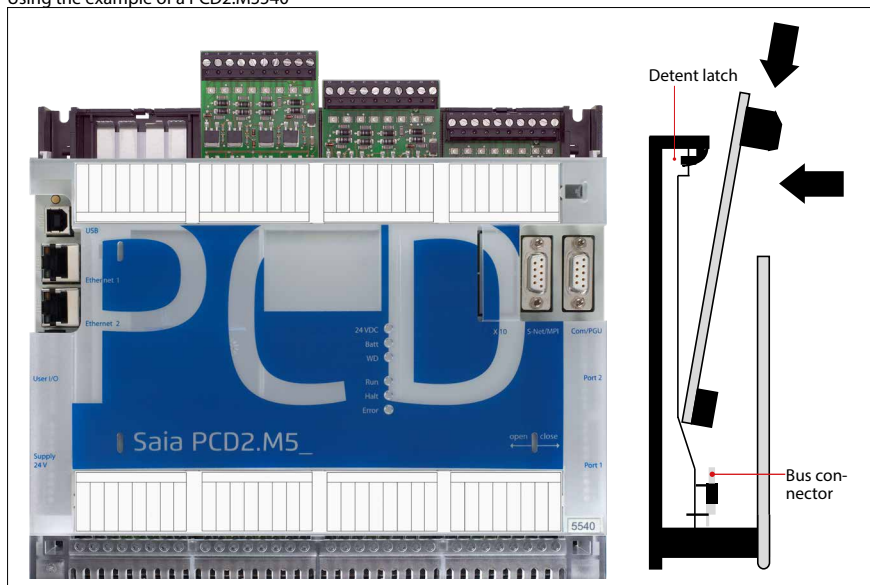
PCD2.C1000

I/O bus for standard modules

Ground connection for I/O modules

PCD2.C2000
8 I/O-module slots 0...7

I/O 0   I/O 1   I/O 2   I/O 3

I/O bus

Power supply

I/O 7   I/O 6   I/O 5   I/O 4

PCD2.C1000
4 I/O-module slots 0...3

I/O 0   I/O 1

I/O 3   E/A 2

System properties

▸ Up to 1023 central data points
▸ Numerous module variants can be plugged in
▸ Mounting is quick and easy
▸ Can be combined with Saia PCD3.Cxxx module holders
▸ Connections for a power supply on each module holder
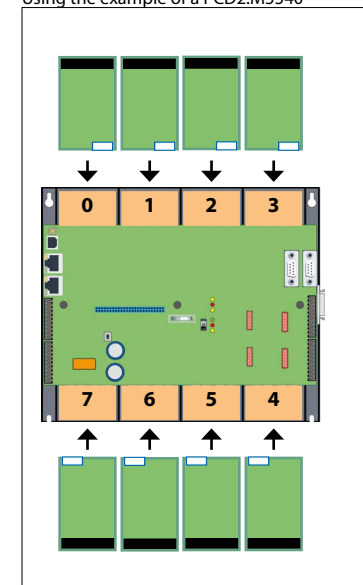▸ Can be connected below or next to each other

Insertion into housing
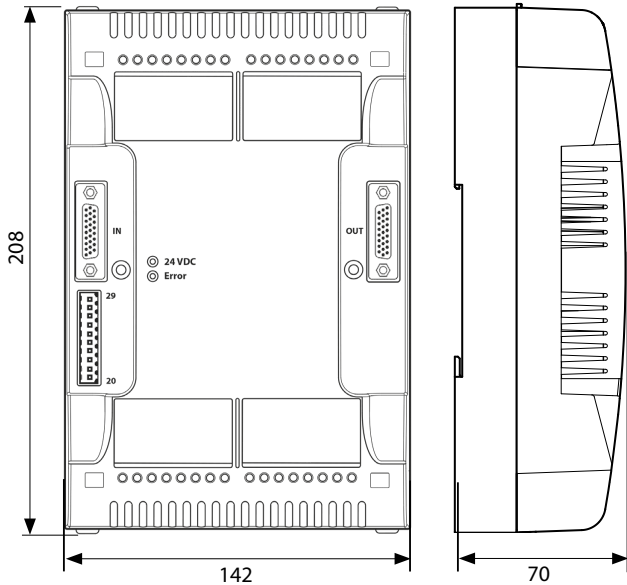Using the example of a PCD2.M5540

Detent latch

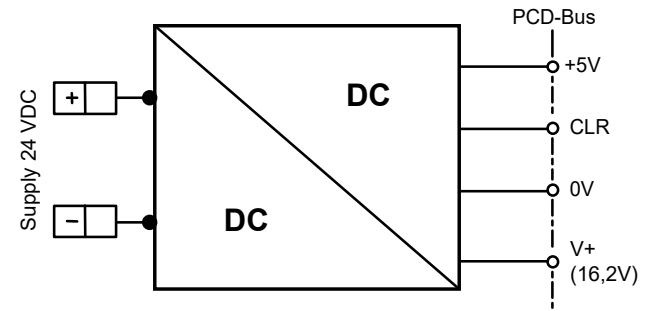Bus connector

Slots for I/O modules
Using the example of a PCD2.M5540

0   1   2   3

7   6   5   4

Dimensions PCD2.C1000
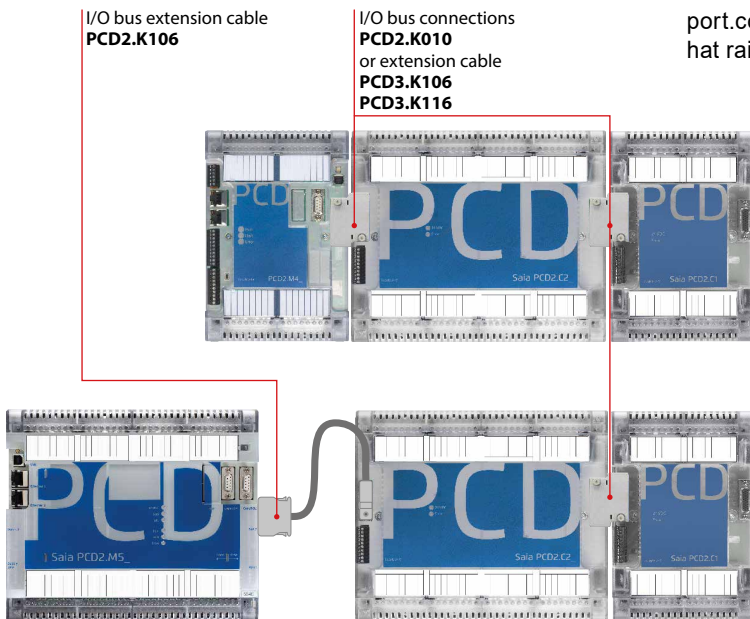

Internal supply to PCD2.C1000 module holders

The PCD2.Cx000 module holders provide the following internal supply currents to the modules plugged in or connected to them:

Type	power supply		power consumption
	+5V	V+	
PCD2.C1000	1,400 mA	800 mA	typically 2 W

When planning PCD2 systems, it is essential to check that the two internal supplies are not overloaded. This check is especially important when using analogue, counter and positioning modules, as these may have a very large power consumption.

It is advisable to use the calculation table at www.sbc-support.com. The PCD2.LIOs are also snapped onto two 35 mm hat rails.

Cabling PCD2.C1000

I/O bus extension cable **PCD2.K106**

I/O bus connections **PCD2.K010** or extension cable **PCD3.K106** **PCD3.K116**

Minimum distance between the units when using extension cables: 10 cm

PCD2.M5x40 to PCD2.Cx000	PCD2.M4x60 to PCD2.Cx000	PCD2.Cx000 to PCD2.Cx000
PCD2.K106	PCD2.K010 PCD3.K106 PCD3.K116	PCD2.K010 PCD3.K106 PCD3.K116

Saia PCD2 I/O module holder

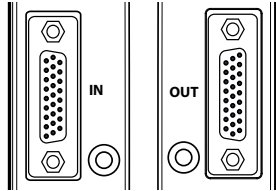| Type	Description
PCD2.C1000	Expansion module holder with 4 I/O slots
PCD2.C2000	Expansion module holder with 8 I/O slots
PCD2.K010	I/O bus connector
PCD2.K106	I/O bus extension cable length 0.9 m (connection between PCD2.M5xxx and PCD2.Cxxxx)
PCD3.K106	I/O bus extension cable length 0.7 m (connection between two module holders)
PCD3.K116	I/O bus extension cable length 1.2 m (connection between two module holders)

No more than 5 extension cables may be used for this.

Connections and display elements for PCD2.C1000 expansion housing

LEDs
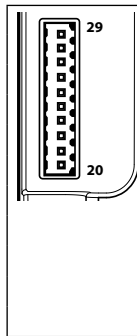
24 VDC (yellow): ◯ Supply present (19 V...32 VDC)
Power fail (red): ● Short-circuit (+5 V or V+ not present)

Expansion connection

This connector can be used to connect the PCD2.C1000 expansion housing to further PCD2.Cx000 units, with the PCD2.K010 connector or with connection cables. This allows up to 1023 digital I/Os to be supported.

Power supply to expansion housings

Pin	Designation	Meaning
29	Power fail	+5 V or V+ not present
28	Power good	Power supply present
27	COM	Shared connection
26	n.c.	not connected
25	n.c.	not connected
24	-	GND
23	-	GND
22	+	+24 V
21	+	+24 V
20	+	+24 V

Tips and hints

Over 40 modules available with different functionalities

Types

▶ **PCD3.Axxx** Digital output modules
▶ **PCD3.Exxx** Digital input modules
▶ **PCD3.Fxxx** Communication modules
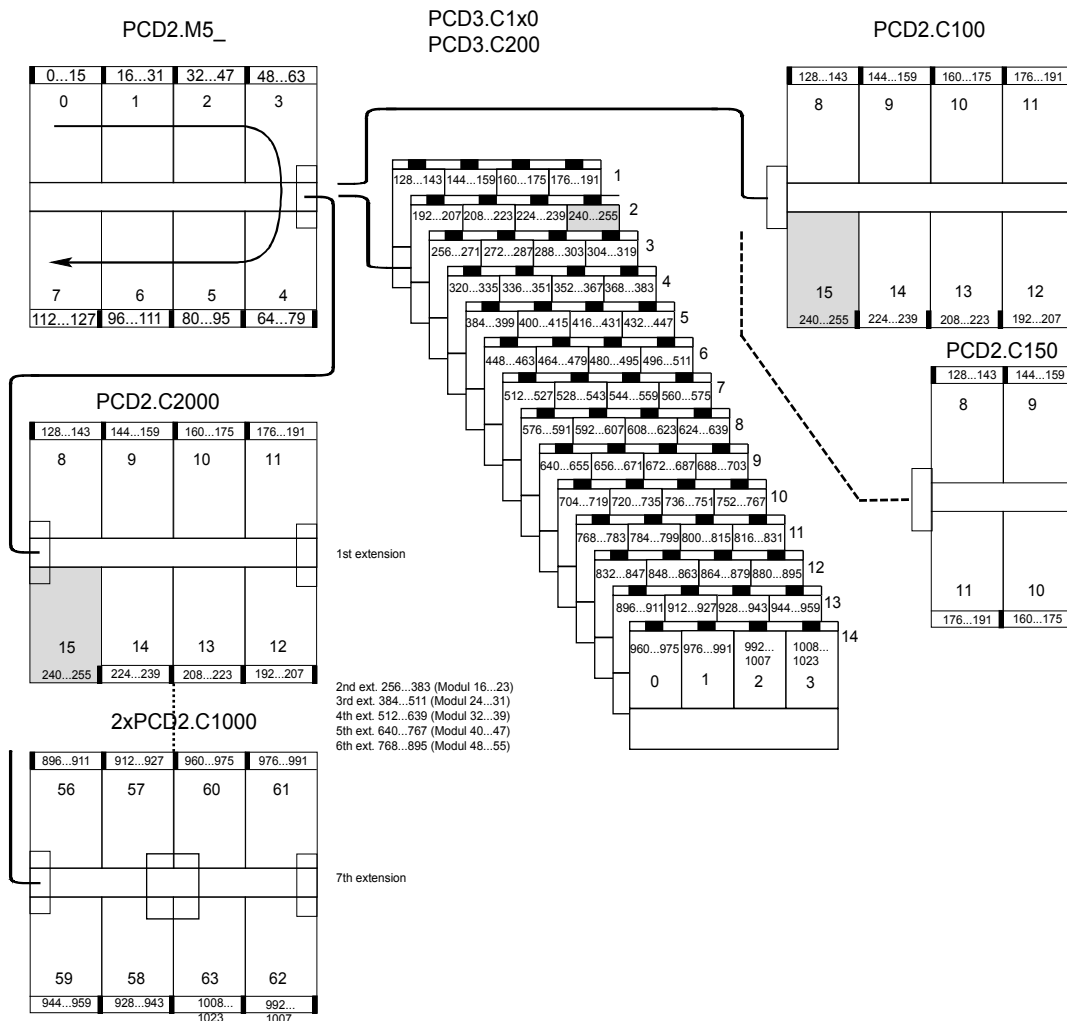▶ **PCD3.Wxxx** Analogue input/output modules

❗ PCD3 I/O modules are not hot-plug capable:

- I/O modules and I/O terminal blocks may only be plugged in and removed when the Saia PCD® is disconnected from the power supply.

- The external power supply of the modules +24 V must also be switched off.

- Carefully insert and remove the I/O modules after switching off the power supply (24V).

Example:
Addressing of module holders and modules

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 0used 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.
Do not use a damaged device !

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, no repairs should be undertaken by the user.

Observe this instructions (data sheet) and keep them in a safe place.
Pass on the instructions (data sheet) to any future user.

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.

PCD2.C1000

Connecting plug
PCD2.K010

Extension cable 0.9 m
PCD2.K106

Extension cable 0.7 / 1.2 m
PCD3.K106 / PCD3.K116

Ordering information

Type	Short description	Description	Weight
PCD2.C1000	PCD2.C1000 for 4 modules	Extension housing with 4 I/O module sockets and 24 VDC power supply for PCD2.M4560 and PCD2.M5540	500 g

Accessories

Type	Short description	Description	Weight
PCD2.K010	I/O bus connector	I/O bus connector for PCD2.M4560 to PCD2.Cx000 or PCD2.Cx000 to PCD2.Cx000	10 g
PCD2.K106	Extension cable 0.9 m	Extension cable for PCD2.M5540 to PCD2.C1000/..C2000 or PCD3.Cxx0 (length 0.9 m - from version C)	100 g
PCD3.K106	Extension cable 0.7 m	Extension cable for PCD2.M4560 to PCD2.Cx000, PCD3.M/T/C to PCD3.Cxx0 or PCD2.C1000/..C2000 to PCD2.C1000/..C2000 (length 0.7 m)	140 g
PCD3.K116	Extension cable 1.2 m	Extension cable for PCD2.M4560 to PCD2.Cx000, PCD3.M/T/C to PCD3.Cxx0 or PCD2.C1000/..C2000 to PCD2.C1000/..C2000 (length 1.2 m)	180 g

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