PCD2.C100 Installation Guide

Expansion housing / field verification and acceptance

Purpose and boundary

The PCD2.C100 provides eight I/O positions in a housing with the same physical envelope as the PCD2.Mxx0 base family. Its sockets continue the numbering of the base controller: the base positions are 0–7 and the expansion positions are 8–15. The installed CPU and its permitted expansion arrangement still determine the usable module count and configuration.

Before the cabinet is opened

Identity

Read SAIA PCD2.C100 on the housing and identify the PCD2.Mxx0 CPU and installed I/O module types.

System plan

Save the controller project and a socket-by-socket map; identify the intended eight extension positions.

Cable and orientation

Determine beneath or side-by-side mounting and select the documented 26-core bus cable.

Documented configuration

Item	Source-supported point
Housing	Eight I/O positions; sockets 8–15
Base link	26-core cable from a compatible PCD2.Mxx0 controller
Placement	PCD2.K100 beneath / PCD2.K110 side by side

Apter Power installation reference; use the exact controller manual and site electrical procedure for final wiring and safety decisions.

Acceptance target

The completed assembly should show the intended modules in the correct physical positions, a seated expansion link, a matching saved project and controlled channel tests. A housing-only check does not establish I/O system readiness.

Plan the expansion bus

01 / controller, socket and cable map

Interface map

Component	Position or role	Acceptance check
PCD2.Mxx0 base	Sockets 0–7	Record CPU and installed module list
PCD2.C100 housing	Sockets 8–15	Map each planned module to its slot
PCD2.K100	Under-mounted link	Check 26-core seating and route
PCD2.K110	Side-by-side link	Check 26-core seating and route
PCD2.K120	2 m, specific applications	Verify the particular controller/layout instructions

Position restrictions

Socket 15

Do not assign a W or H module to PCD2.C100 position 15. Place it in a permitted position and update the controller project.

T8xx modem

Check the modem-specific placement instructions for the particular T8xx type; the general expansion drawing does not clear all sockets.

Plan the test record

Before touching the installed assembly, record the existing program version, module part numbers, cable choice, physical position map and terminal labels. Keep these as the commissioning baseline.

Cable selection notes

Cable	Use described in source
PCD2.K100	Beneath-each-other placement, 0.5 m
PCD2.K110	Side-by-side placement, 0.7 m
PCD2.K120	2 m; specific applications only

Install and inspect

02 / controlled mechanical and electrical work

Work sequence

1 Isolate

De-energize the controller and field supply according to the cabinet procedure. Verify the safe state before opening the I/O section.

2 Mount

Check cabinet space, orientation and accessible cable path. Position the C100 housing without straining the base connector.

3 Connect

Seat the specified 26-core cable between the base and expansion housing; inspect alignment and retention at both ends.

4 Populate

Install each approved module in its mapped socket. Reserve socket 15 against W or H types and review modem restrictions.

5 Reconcile

Compare module order, terminal labels and controller project addresses with the approved I/O plan before energizing.

Hold point

Stop before power-up if the full housing marking, CPU compatibility, cable model, socket assignment or module type does not match the approved plan. Resolve the discrepancy and update the record.

Inspection sign-off

Item	Evidence to capture
Housing and CPU	Full marking photos and installed position
Expansion link	Cable model, routing and fully seated ends
I/O population	Socket-to-module list and terminal schedule

Commission in stages

03 / recognition, channels and handover

Controlled checks

Stage	Observe	Record
Power-up	CPU and expansion recognition	Status and any diagnostics
Inputs	Known safe input states	Channel map and readings
Outputs	Interlocked test commands	Wiring response and load state
Recovery	Safe restart after test	Project and fault history

If an I/O address is wrong

• Compare the actual module sequence with planned sockets 8–15 and the saved controller project.

• Check 26-core cable seating and the selected mount orientation; do not hot-swap the link.

• Inspect position-15 and modem restrictions before treating a module as failed.

Handover pack

Keep photographs of the complete PCD2.C100 and CPU markings, the final cable model, the socket-to-module schedule, controller project revision, channel results and corrective actions.

Troubleshooting prompts

Symptom	First comparison
Expansion not recognized	26-core seating, cable choice and CPU expansion plan
Missing channel	Module position versus saved project and terminal map
Unexpected module fault	Position 15 W/H restriction and modem-specific placement
Wrong output response	Terminal schedule, interlocks and module assignment

Product enquiry

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Reference and selection

04 / source scope and related catalogue items

Technical source

Saia-Burgess Controls, PCD1 / PCD2 Series Manual, document 26/737 EN24 (2014-07-30). The source excerpt in Downloads preserves the manufacturer pages covering the PCD2.C100 expansion arrangement and ordering entry.

Selection boundaries

Housing

PCD2.C100 is the eight-socket housing; PCD2.C150 is the distinct four-socket housing.

Bus cable

K100, K110 and K120 differ by intended layout and application; verify the actual controller documentation.

Module map

The physical expansion map is 8–15; W/H types cannot be placed in socket 15.

Related SAIA catalogue references

Browse related product pages; verify the exact controller, module and cable fit before ordering.

SAIA PCD2.M170
PCD2 controller

SAIA PCD2.C150
Four-slot expansion

SAIA PCD2.K100
Under-mount cable

SAIA PCD2.K110
Side-mount cable

SAIA PCD2.E110
Digital input module

SAIA PCD2.A400
Digital output module

Quotation handoff

Send the full PCD2.C100 marking, installed CPU type, cable orientation, module schedule and quantity. Confirm whether modules, cable and mounting accessories are part of the offered unit; the quotation will state quantity and dispatch timing.

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