

# PCD3.A251

Digital output module, 8 relays,  
6 with changeover contacts, 2 with make contacts



Technical data	
Number of outputs	6 changeover contacts and 2 make contacts
Type of relay (typical)	RE 014024, SCHRACK
Operating mode	> 12 V, > 100 mA
Switching capacity: <sup>1)</sup> (contact lifetime)	2 A, 48 VAC AC1: 0.7 × 10 <sup>6</sup> operations 1 A, 48 VAC AC11: 1.0 × 10 <sup>6</sup> operations <sup>3)</sup> 2 A, 50 VDC DC1: 0.3 × 10 <sup>6</sup> operations <sup>3)</sup> 1 A, 24 VDC DC11: 0.1 × 10 <sup>6</sup> operations <sup>1)</sup>
Relay coil supply <sup>2)</sup>	nominal 24 VDC smoothed or pulsed, 8 mA per relay coil
Voltage tolerance, dependent on ambient temperature	20 °C: 17.0 ... 35 VDC 30 °C: 19.5 ... 35 VDC 40 °C: 20.5 ... 32 VDC 50 °C: 21.5 ... 30 VDC
Output delay	typically 5 ms bei 24 VDC
Resistance to interference acc. to IEC 801-4	4 kV under direct coupling 2 kV under capacitive coupling (whole trunk group)
Internal current consumption (from +5 V bus)	1 ... 25 mA typically 15 mA
Internal current consumption (from V+ bus)	0 mA
External current consumption	max. 64 mA
Terminals	Pluggable 24-pole spring terminal block (4 405 4956 0), for Ø up to 1 mm <sup>2</sup>

- 1) With external protective diode
- 2) With reverse voltage protection
- 3) For UL 61010 compliant operation the following switching capacity applies:  
2 A/30 VDC
- \*) Higher voltages are not allowed for this module because clearances between circuit paths are too small.



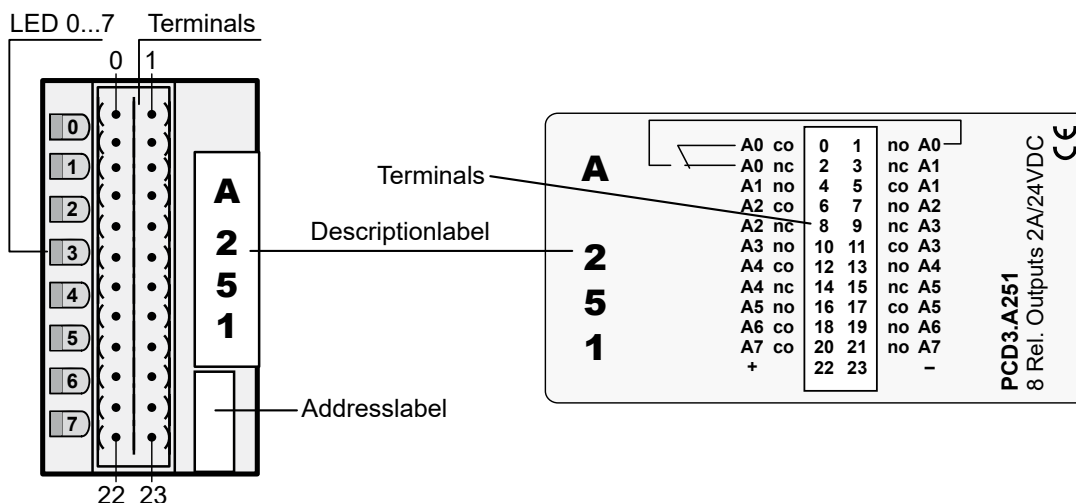
PCD3.A251

The module contains 8 relays for direct or alternating current up to 2 A, 48 VAC. 6 of them have changeover contacts and 2 of them make contacts.

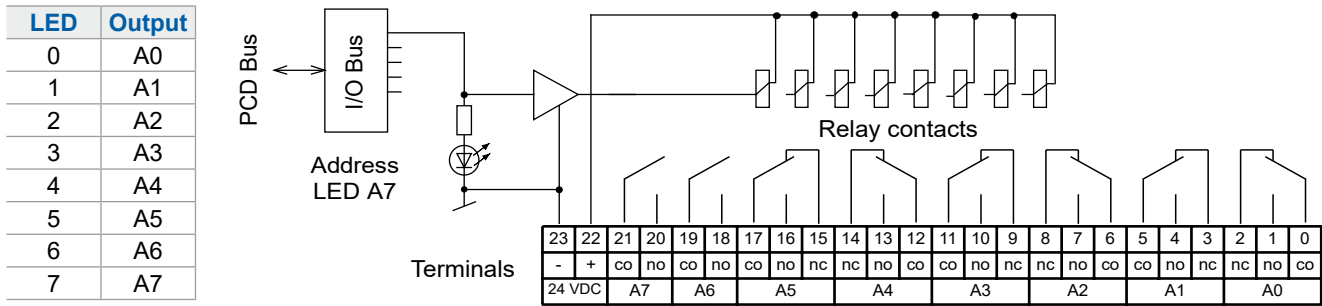
The module is especially suited wherever AC switching circuits with infrequent switching have to be controlled.

For space reasons, there is no integrated contact protection.

## LEDs and connection terminals



**Output circuits and terminal designation**



Relay energized (contact closed): LED on  
 Relay reset (contact open): LED off  
 24 VDC must be connected to the +/- terminals.

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**Watchdog:** This module can be used on all base addresses; there is no interaction with the watchdog on the CPUs.
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**Installation instructions:**  
 For reasons of safety it is not permissible to connect low voltages (up to 50 V) and higher voltages (50 ... 250 V) to the same module.  
 If a Saia PCD® module is connected to a higher voltage (50 ... 250 V), approved components for this voltage must be used for all elements that are electrically connected to the system.  
 Using higher voltage (50 ... 250 V), all connections to the relay contacts must be connected on the same circuit, i.e. in such a way that they are all protected against one AC phase by one common fuse. Each load circuit may also be protected individually.
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 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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 In the manual 27-600\_ENG, in the Chapter A4 "appendix relay contacts", are calculation data and wiring suggestions for the relay contacts. These data should be absolutely considered for safe switching and a long life span of the relays.

**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 EN61010 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.

**GUARANTEE**

Opening the module invalidates the guarantee.

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.



PCD3.A251



4 405 4956 0

**Order details**

Type	Short description	Description	Weight
PCD3.A251	8 relays, 6 change-over contacts and 2 make-contacts	Digital output module, 8 relays, 48 VAC/2 A or 50 VDC/2 A	120 g

**Order details accessories**

Type	Short description	Description	Weight
4 405 4956 0	Connector type "C"	Plug-in I/O spring terminal block, 2 × 12-pole up to 1.0 mm <sup>2</sup> , labelled 0 to 23 for modules with 16 I/Os or relay module ..A251, connector type "C"	15 g