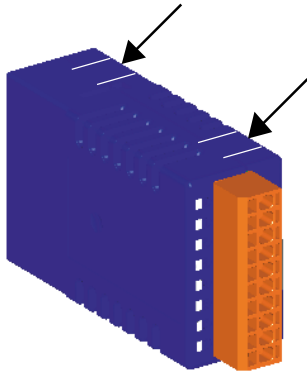




### Open and close the module housing



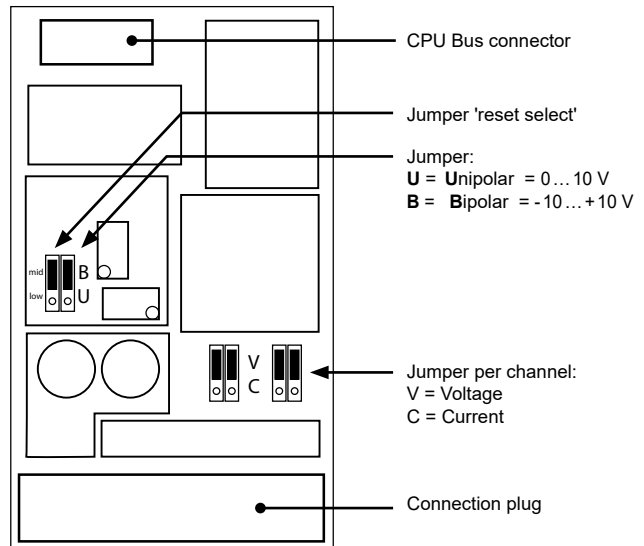
#### Open

On each of the two narrow sides of the housing are two snap-in clips. Lift these gently with your fingernails on one side then the other and separate the two parts of the housing.

#### Close

To close the housing, lay the bottom part on a flat surface (table etc.). Ensure that the circuit board is precisely located in this part of the housing. Press top part onto bottom until you hear the snap-in clips engage. Ensure that all four clips are correctly engaged.

### Topology (open housing)



### Changing the jumpers

On this circuit board there are components that are sensitive to electrostatic discharges.

#### Range selection(

Jumpers, factory settings	Address	Setting	Description
	A0...A3	"V"	(voltage)
	U/B	"B"	(bipolar)
	Reset select	"mid"	(reset to mid-scale, i.e. 0V in bipolar mode)

#### Ranges depending on application

Application	Setting	Operation
Pro Modul	U/B	Unipolarer or Bipolarer operation
	Reset select	Reset to <b>low-</b> or <b>mid scale</b>
	Empf. Einstellung	Unipolar → low-scale Bipolar → mid-scale
Per channel	"V"	Voltage output: 0...+10 V or -10 V...+10 V
	"C"	Current output: 0...20 mA



**Current outputs have been laid out for unipolar mode. Bipolar mode is possible, but for the negative half of this operation the output is 0 mA.**



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



Watchdog ..

.. in classic system

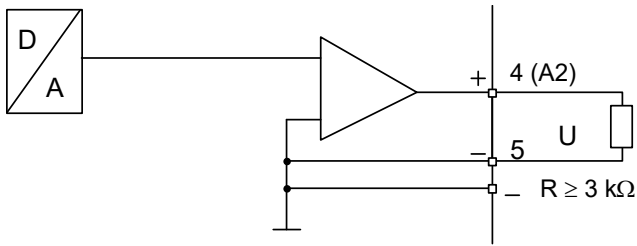
The watchdog with his address 255 can influence this module if it is used at the base address 240.

.. in IEC-controller system

is not affected

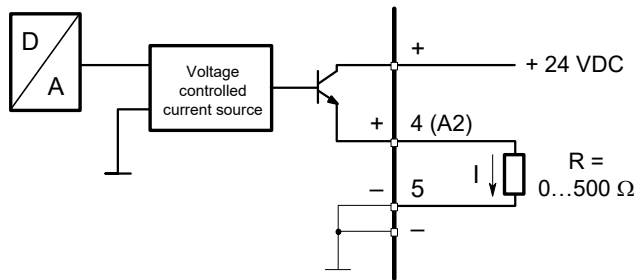
## Principle diagram of analog outputs

### Output connection for 0 ... 10 V, -10 ... +10 V

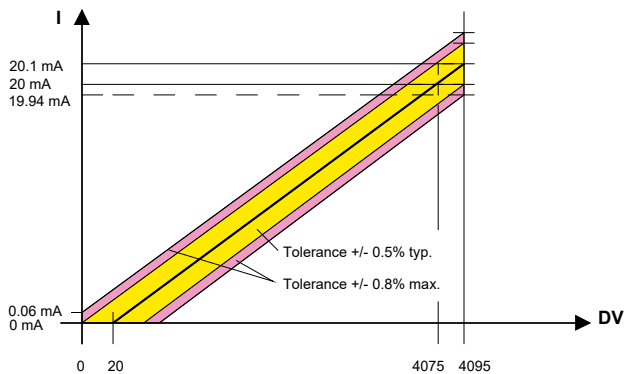


During start-up, a voltage of 5 V is sent to all outputs of the W610 module. The start-up phase lasts 40 ms, then 0 V is sent to the outputs.

### Output connection for 0 ... 20 mA



## Characteristics of the current outputs



## Digital/analogue values

LED	Output signals
4095	+ 20.1 mA
4075	+ 20 mA
2048	+ 10 mA
20	0 mA
0	0 mA

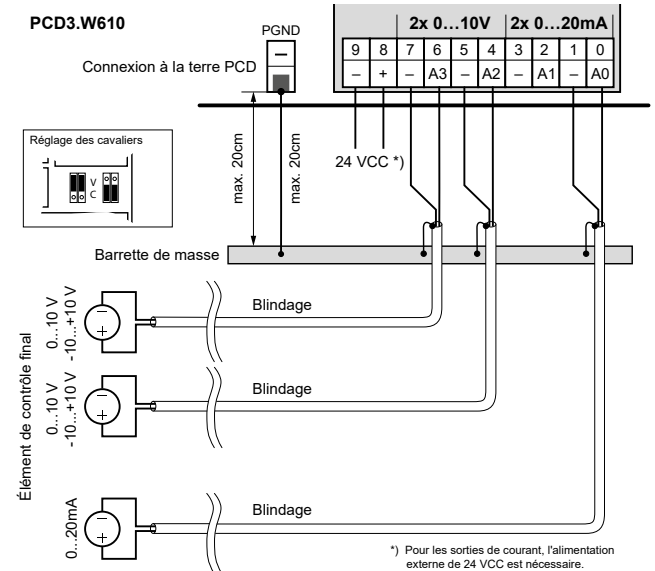


For current outputs, an external supply of 24 VDC is required at terminals 8 and 9.

## Connection concept

The voltage input signals are connected directly to the 10-pole terminal block. To minimize the amount of interference coupled into the module via the transmission lines, connection should be made according to the principle explained below.

### Connection for 0 ... 10 V, -10 ... +10 V, 0 ... 20 mA

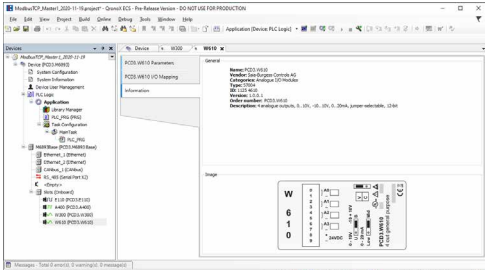
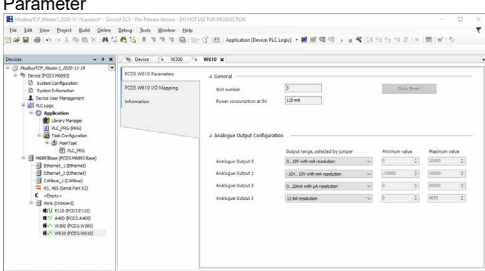
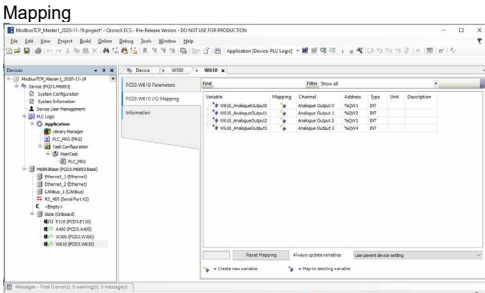


# Configuration

## Saia PG5® Controls Suite

PCD-System	Evaluation
Classic	<p>The evaluation is performed by the firmware. It reads the values according to the configuration (Device Configurator or Network Configurator).</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Properties</b></p> <p>Slot 2 : PCD3.W610, 4 Analogue Outputs, Universal</p> <ul style="list-style-type: none"> <li><b>General</b> <ul style="list-style-type: none"> <li>BaseAddress: 32</li> <li>Connector Type: Type A, Spring Terminals 10-pole</li> </ul> </li> <li><b>Power Consumption</b> <ul style="list-style-type: none"> <li>Power Consumption 5V [mA]: 110</li> </ul> </li> <li><b>Media Mapping</b> <ul style="list-style-type: none"> <li>Media Mapping Enabled: No</li> <li>Media Type: Register</li> <li>Number Of Media: 4</li> </ul> </li> <li><b>Analogue Output 0</b> <ul style="list-style-type: none"> <li>Output 0 Range: 0...10V in mV resolution</li> <li>Minimum Value Output 0: 0</li> <li>Maximum Value Output 0: 10000</li> </ul> </li> <li><b>Analogue Output 1</b> <ul style="list-style-type: none"> <li>Output 1 Range: -10...10V in mV resolution</li> <li>Minimum Value Output 1: -10000</li> <li>Maximum Value Output 1: 10000</li> </ul> </li> <li><b>Analogue Output 2</b> <ul style="list-style-type: none"> <li>Output 2 Range: 0...20mA in uA resolution</li> <li>Minimum Value Output 2: 0</li> <li>Maximum Value Output 2: 20000</li> </ul> </li> <li><b>Analogue Output 3</b> <ul style="list-style-type: none"> <li>Output 3 Range: 12 Bit resolution</li> <li>Minimum Value Output 3: 0</li> <li>Maximum Value Output 3: 4095</li> </ul> </li> </ul> </div>
Alternatively	<p>An FBox "PCD2/3.W2" exists for evaluation.</p> <p>FBox for PCD3.W610 (Inputs 0...7 selectable)</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>PCD2/3.W6</p> <p>-o0</p> <p>-o1</p> <p>-o2</p> <p>-o3</p> <p>Add <input style="width: 40px;" type="text" value="180"/></p> </div> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>PCD2/3.W6</p> <p>-o0</p> <p>Add <input style="width: 40px;" type="text" value="180"/></p> </div> </div>

## Saia Qronox ECS Engineering and Commissioning Suite

PCD-System	Evaluation																														
IEC-Controller	<p>The evaluation is performed by the firmware. It reads the values according to the configuration (Device Configurator)</p> <div style="margin-top: 10px;"> <p><b>Information</b></p>  </div> <div style="margin-top: 10px;"> <p><b>Parameter</b></p>  </div> <div style="margin-top: 10px;"> <p><b>Mapping</b></p>  <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th>Output</th> <th>Channel</th> <th>Address</th> <th>Type</th> <th>Unit</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>* 180.0_AnalogueOutput0</td> <td>Analogue Output 0</td> <td>18001</td> <td>INT</td> <td></td> <td></td> </tr> <tr> <td>* 180.0_AnalogueOutput1</td> <td>Analogue Output 1</td> <td>18002</td> <td>INT</td> <td></td> <td></td> </tr> <tr> <td>* 180.0_AnalogueOutput2</td> <td>Analogue Output 2</td> <td>18003</td> <td>INT</td> <td></td> <td></td> </tr> <tr> <td>* 180.0_AnalogueOutput3</td> <td>Analogue Output 3</td> <td>18004</td> <td>INT</td> <td></td> <td></td> </tr> </tbody> </table> </div>	Output	Channel	Address	Type	Unit	Description	* 180.0_AnalogueOutput0	Analogue Output 0	18001	INT			* 180.0_AnalogueOutput1	Analogue Output 1	18002	INT			* 180.0_AnalogueOutput2	Analogue Output 2	18003	INT			* 180.0_AnalogueOutput3	Analogue Output 3	18004	INT		
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* 180.0_AnalogueOutput2	Analogue Output 2	18003	INT																												
* 180.0_AnalogueOutput3	Analogue Output 3	18004	INT																												

**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.



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.W610



4 405 4954 0

### Ordering information

Type	Short description	Description	Weight
PCD3.W610	4 analogue outputs, 12 bit. 0...10 V, -10...+10 V, 0...20 mA	Analogue output modules, 4 inputs (channels), resolution 12 bit, signal range 0...10 V, -10...+10 V, 0...20 mA. The channels themselves not separated. Connection with pluggable spring terminals, plug-in type A (4 405 4954 0) included	100 g

### Ordering information equipment

Type	Short description	Description	Weight
4 405 4954 0	Plug-in, type A	Plug-in I/O spring terminal block, 10-pole up to 2.5 mm <sup>2</sup> , labelled 0...9	15 g

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