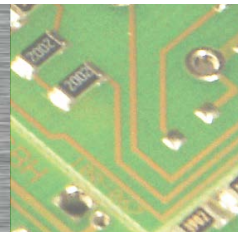


PCD3.W200

Analog input module, 8 channel, 10 bit, 0 ... 10 V



Description

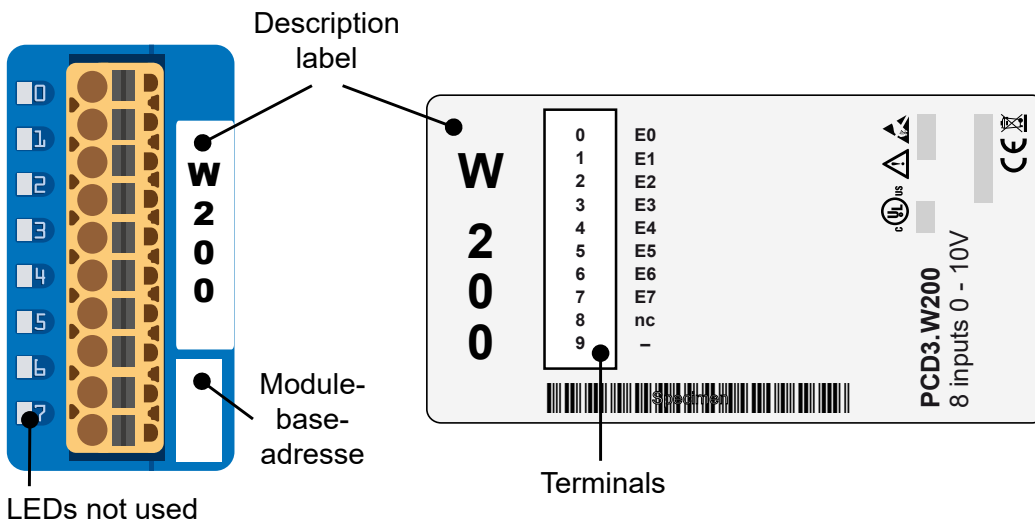
With its short conversion time of <math>< 50 \mu\text{s}</math>, this module is universally suitable for recording analogue signals.

Technical specifications	
Number of inputs (channels)	8
Signal range	0 à 10 V
Resolution (representation)	10 bit (0 ... 1023)
Resolution per bit	9.775 mV per bit
Galvanic separation	no
Measuring principle	non-differential, single-ended
Input resistance	200 k Ω / 0.15 %
Accuracy (of measured value)	± 3 LSB
Repeating accuracy (under same conditions)	within 1 LSB
Temperature error (0 ... +55 °C)	± 0.3 % (± 3 LSB)
Conversion time A/D	$\leq 50 \mu\text{s}$
Overvoltage protection	± 50 VDC
Burst protection (IEC1000-4-4)	± 1 kV, Leitungen nicht abgeschirmt ± 2 kV, Leitungen abgeschirmt
Time constant of input filter	typisch 5 ms
Internal current consumption (from +5 V bus)	8 mA
Internal current consumption (from V+ bus)	5 mA
External current consumption	0 mA
Terminals	Pluggable 10-pole spring terminal block for \varnothing up to 2.5 mm ² , plug type A (4 405 4954 0)

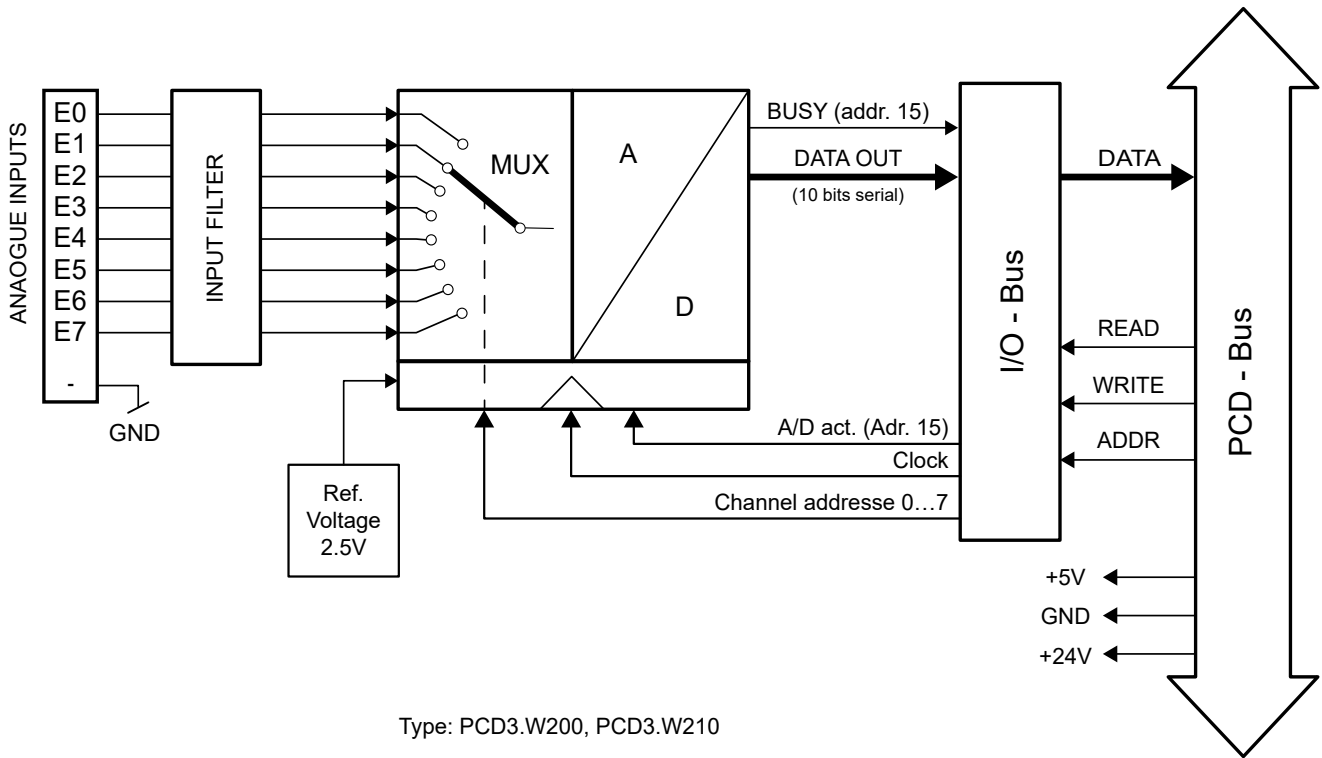


PCD3.W200

Indicators and connections



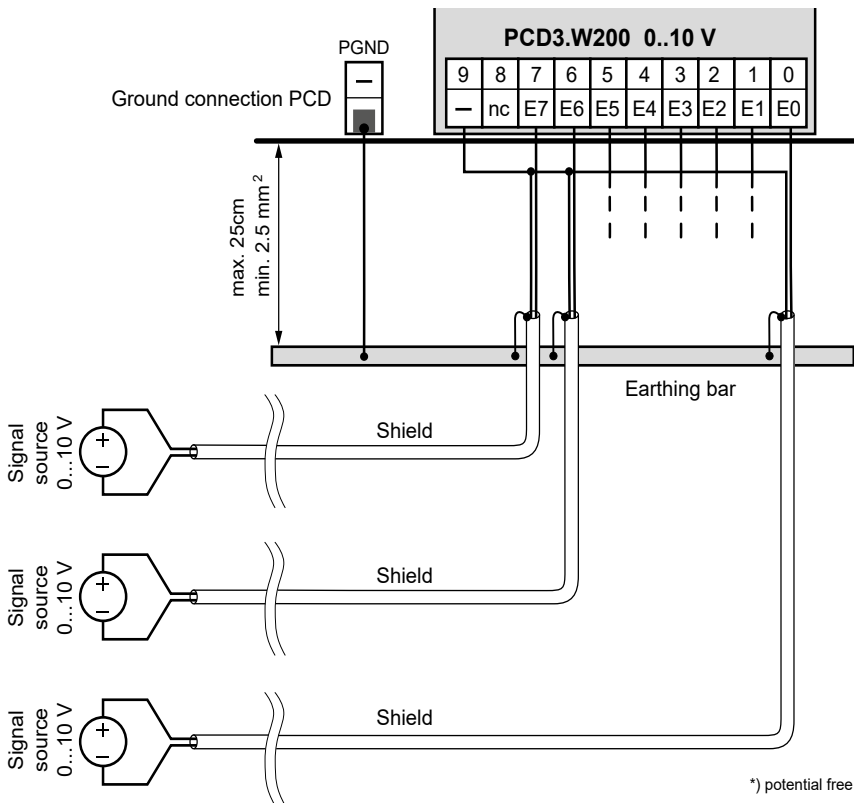
Block diagram



Connection concept for voltage inputs

The voltage input signals are connected directly to the 10-pole terminal block (E0 ... E7 and COM). To minimize the amount of interference coupled into the module via the transmission lines, connection should be made according to the principle explained below.

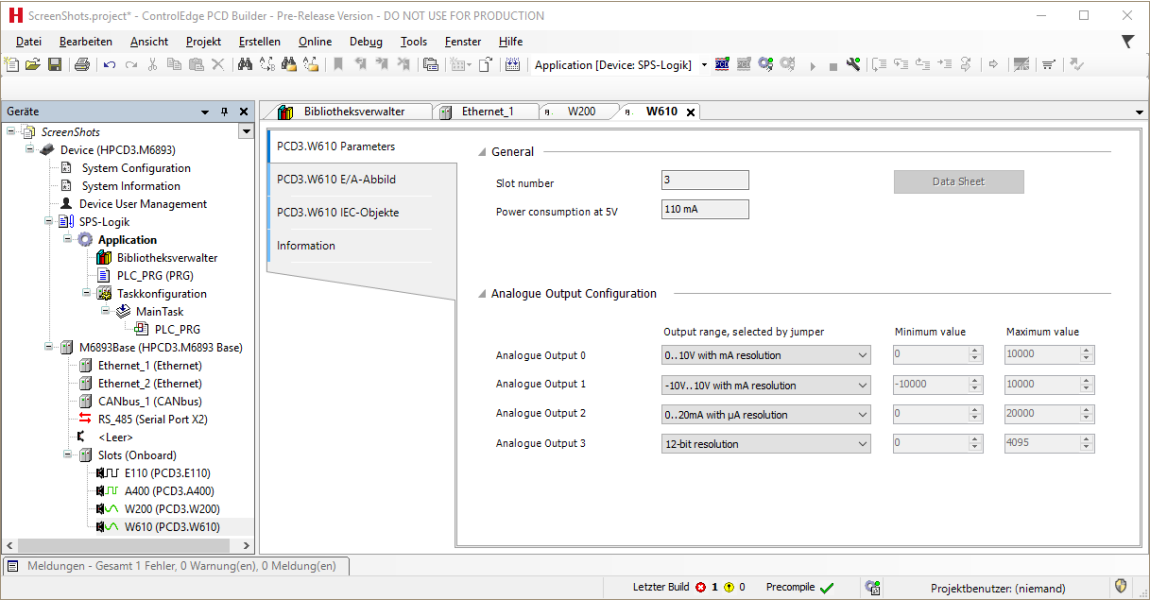
Connection for 0 ... 10 V



- The reference potentials of signal sources should be wired to a common GND connection (“-” and “COM” terminals). To obtain optimum measurement results, any connection to an earthing bar should be avoided.
- If shielded cables are used, the shielding should be connected to an earthing rail.
- Input signals with incorrect polarity significantly distort the measurements on the other channels.

Configuration

HPS ControlEdge PCD Builder

HPCD-System	Evaluation																				
HPCD3.M6893	<p>The evaluation is performed by the firmware. It reads the values according to the configuration (Device Configurator)</p>  <p>The screenshot shows the 'PCD3.W610 Parameters' configuration window. The 'General' section includes 'Slot number' (3) and 'Power consumption at 5V' (110 mA). The 'Analogue Output Configuration' section shows settings for four analogue outputs:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Analogue Output</th> <th>Output range, selected by jumper</th> <th>Minimum value</th> <th>Maximum value</th> </tr> </thead> <tbody> <tr> <td>Analogue Output 0</td> <td>0..10V with mA resolution</td> <td>0</td> <td>10000</td> </tr> <tr> <td>Analogue Output 1</td> <td>-10V..10V with mA resolution</td> <td>-10000</td> <td>10000</td> </tr> <tr> <td>Analogue Output 2</td> <td>0..20mA with μA resolution</td> <td>0</td> <td>20000</td> </tr> <tr> <td>Analogue Output 3</td> <td>12-bit resolution</td> <td>0</td> <td>4095</td> </tr> </tbody> </table> <p>The status bar at the bottom indicates 'Letzter Build' with 1 error and 0 warnings, and 'Precompile' is successful. The project user is 'niemand'.</p>	Analogue Output	Output range, selected by jumper	Minimum value	Maximum value	Analogue Output 0	0..10V with mA resolution	0	10000	Analogue Output 1	-10V..10V with mA resolution	-10000	10000	Analogue Output 2	0..20mA with μ A resolution	0	20000	Analogue Output 3	12-bit resolution	0	4095
Analogue Output	Output range, selected by jumper	Minimum value	Maximum value																		
Analogue Output 0	0..10V with mA resolution	0	10000																		
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Analogue Output 3	12-bit resolution	0	4095																		



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



PCD3.W200



4 405 4954 0

Ordering information

Type	Short description	Description	Weight
PCD3.W200	8 analogue inputs 0...10 V, 10 bit	Analogue input module, 8 inputs (channels), resolution 10 bit, signal range 0...10 V, (the channels themselves not separated), connection with pluggable spring terminals, plug-in type A (4 405 4954 0) included	80 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 ² , labelled 0 ... 9	15 g

**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.

Sales and Service

For application assistance, current specifications, pricing, or name of the nearest Authorized Distributor, contact one of the offices below.

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Specifications are subject to change without notice.

For more information

Learn more about ControlEdge PCD, visit our website
www.honeywellprocess.com/ControlEdgePCD or
contact your Honeywell account manager.

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