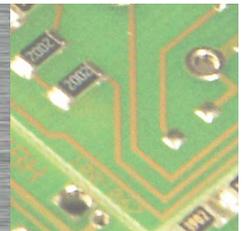


PCD3.W310

Analog input module, 8 channel, 12 bit, 0 ... 20 mA



Fast, analog 8 channel input module with 0 ... 20 mA and 12 bit resolution per channel. Use of a fast on-board micro controller allows decoupling and relief of the PCD regarding intensive computing tasks, such as scaling and filtering of signal data.

Technical specifications

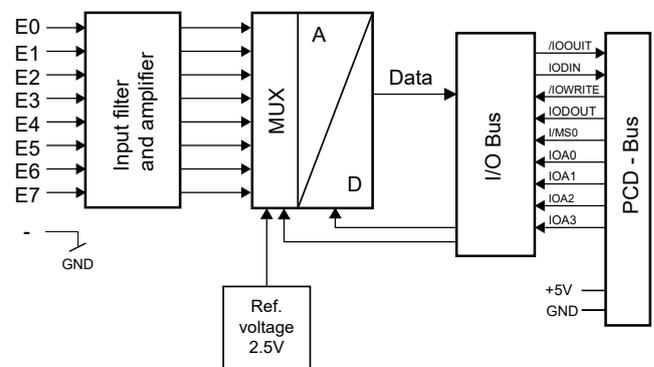
Number of inputs (channels)	8
Signal range	0 ... 20 mA
Resolution (representation)	12 bit (0 ... 4095)
Resolution	4.884 μ A pro bit
Galvanic separation	no
Measuring principle	non-differential, single-ended
Input resistance	125 Ω / 0.1 %
Accuracy at 25 °C	\pm 0.5 %
Repeating accuracy (under same conditions)	\pm 0.05 %
Temperature error (0 ... +55 °C)	\pm 0.2 %
Conversion time A/D	\leq 10 μ s
Overvoltage protection ¹⁾	\pm 40 VDC (permanently)
EMV protection	yes
Time constant of input filter	typisch 10.5 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)

¹⁾ No negative input voltage should be applied on these modules !



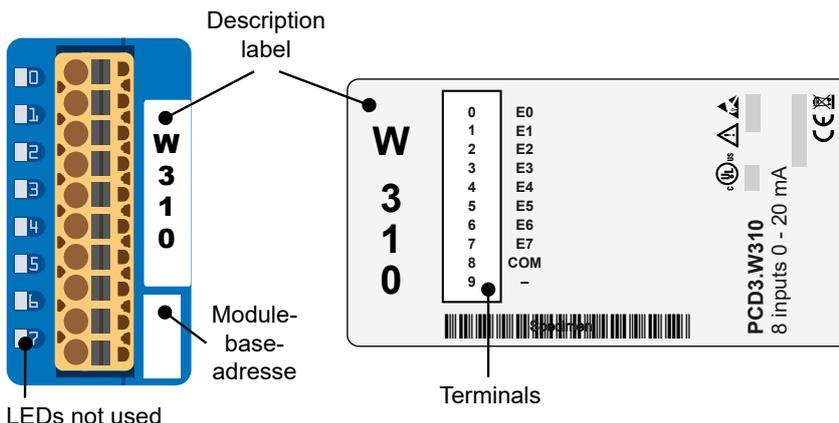
PCD3.W310

Block schematic



Type: PCD3.W300, PCD3.W310

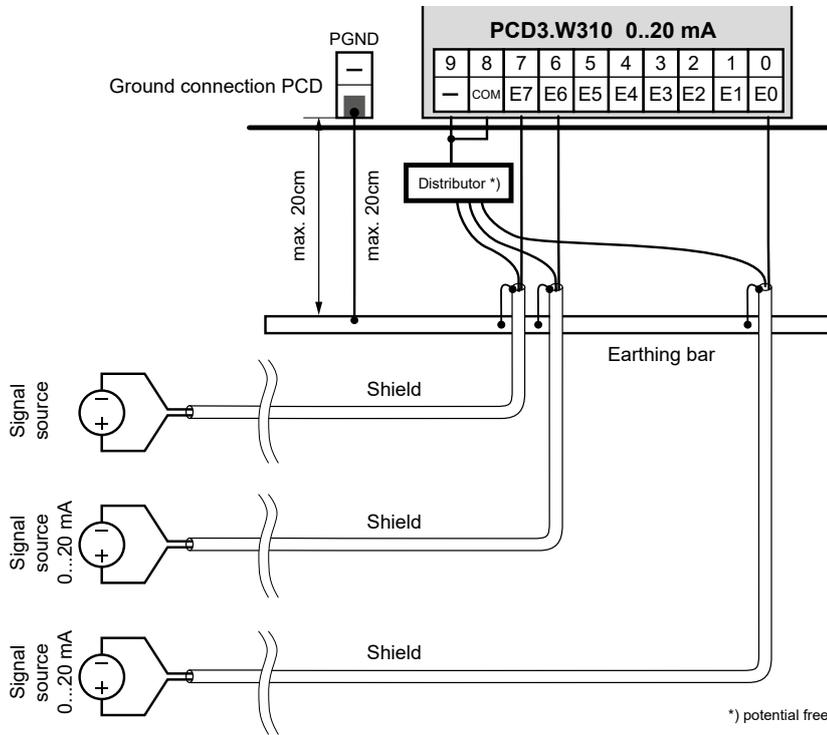
Indicators and connections



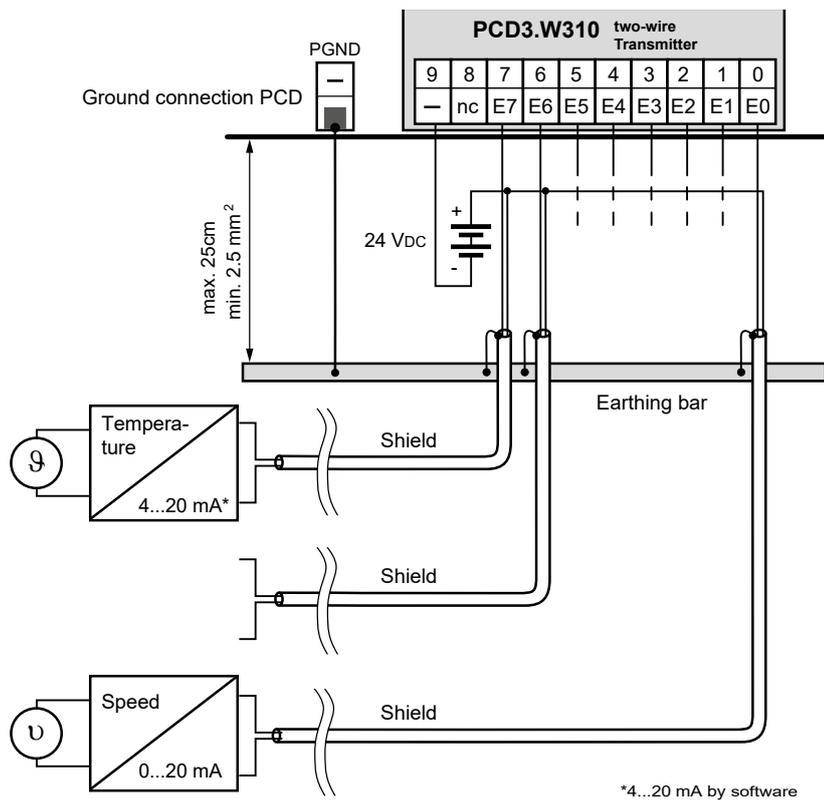
Connection concept for voltage inputs

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 ... 20 mA



Connection for 0 ... 20 mA with two-wire transducers





No negative input voltage should be applied on these modules.



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.



Galvanic separation of inputs to HPCD CPUSaia PCD®, channels themselves not separated.



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



PCD3.W310



4 405 4954 0

Ordering information

Type	Short description	Description	Weight
PCD3.W310	8 analogue inputs 0...20 mA, 12 bit	Analogue input module, 8 inputs (channels), resolution 12 bit, signal range 0...20 mA, (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 during, 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.

ASIA PACIFIC

Honeywell Process Solutions,
(TAC) hfs-tac-support@honeywell.com

Australia

Honeywell Limited
Phone: +(61) 7-3846 1255
FAX: +(61) 7-3840 6481
Toll Free 1300-36-39-36
Toll Free Fax:
1300-36-04-70

China – PRC - Shanghai

Honeywell China Inc.
Phone: (86-21) 5257-4568
Fax: (86-21) 6237-2826

Singapore

Honeywell Pte Ltd.
Phone: +(65) 6580 3278
Fax: +(65) 6445-3033

South Korea

Honeywell Korea Co Ltd
Phone: +(822) 799 6114
Fax: +(822) 792 9015

EMEA

Honeywell Process Solutions,
Phone: +80012026455 or
+44 (0)1344 656000

Email: (Sales)
FP-Sales-Apps@Honeywell.com
or
(TAC) hfs-tac-support@honeywell.com

AMERICA'S

Honeywell Process Solutions,
Phone: (TAC) 1-800-423-9883 or
215/641-3610
(Sales) 1-800-343-0228

Email: (Sales)
FP-Sales-Apps@Honeywell.com
or
(TAC) hfs-tac-support@honeywell.com

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is **in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.** Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

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.

Honeywell Process Solutions

2101 CityWest Blvd, Houston TX 77042
Honeywell House, Skimped Hill Lane

Bracknell, Berkshire, England RG12 1EB UK ©2020 Honeywell International Inc.
Building #1, 555 Huanke Road,

Zhangjiang Hi-Tech Industrial Park,
Pudong New Area, Shanghai 201203

Document No.: 51-52-03-83
Rev.3.0
June 2020

