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

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of inputs (channels)</td>
<td>8</td>
</tr>
<tr>
<td>Signal range</td>
<td>0 … 20 mA</td>
</tr>
<tr>
<td>Resolution (representation)</td>
<td>12 bit (0 … 4095)</td>
</tr>
<tr>
<td>Resolution</td>
<td>4.884 μA pro bit</td>
</tr>
<tr>
<td>Galvanic separation</td>
<td>no</td>
</tr>
<tr>
<td>Measuring principle</td>
<td>non-differential, single-ended</td>
</tr>
<tr>
<td>Input resistance</td>
<td>125 Ω / 0.1 %</td>
</tr>
<tr>
<td>Accuracy at 25 °C</td>
<td>± 0.5 %</td>
</tr>
<tr>
<td>Repeating accuracy (under same conditions)</td>
<td>± 0.05 %</td>
</tr>
<tr>
<td>Temperature error (0 … +55 °C)</td>
<td>± 0.2 %</td>
</tr>
<tr>
<td>Conversion time A/D</td>
<td>≤ 10 μs</td>
</tr>
<tr>
<td>Overvoltage protection ¹)</td>
<td>± 40 VDC (permanently)</td>
</tr>
<tr>
<td>EMV protection</td>
<td>yes</td>
</tr>
<tr>
<td>Time constant of input filter</td>
<td>typisch 10.5 ms</td>
</tr>
<tr>
<td>Internal current consumption (from +5 V bus)</td>
<td>&lt; 8 mA</td>
</tr>
<tr>
<td>Internal current consumption (from V+ bus)</td>
<td>5 mA</td>
</tr>
<tr>
<td>External current consumption</td>
<td>0 mA</td>
</tr>
<tr>
<td>Terminals</td>
<td>Pluggable 10-pole spring terminal block for Ø up to 2.5 mm², plug type A (4 406 4954 0)</td>
</tr>
</tbody>
</table>

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

### Block schematic

![Block schematic](image)

### Indicators and connections

![Indicators and connections](image)
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.

Further information
This can be found in the Manual "27-600_I/O-modules for PCD1 / PCD2 series and for PCD3".

### Ordering information

<table>
<thead>
<tr>
<th>Type</th>
<th>Short description</th>
<th>Description</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCD3.W310</td>
<td>8 analogue inputs 0…20 mA, 12 bit</td>
<td>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</td>
<td>80 g</td>
</tr>
</tbody>
</table>

### Ordering information equipment

<table>
<thead>
<tr>
<th>Type</th>
<th>Short description</th>
<th>Description</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 405 4954 0</td>
<td>Plug-in, type A</td>
<td>Plug-in I/O spring terminal block, 10-pole up to 2.5 mm², labelled 0 … 9</td>
<td>15 g</td>
</tr>
</tbody>
</table>
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
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

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(Sales) 1-800-343-0228

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**WARRANTY/REMEDY**
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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.

Qualifications are subject to change without notice.

For more information
Learn more about ControlEdge PCD, visit our website [www.honeywellprocess.com/ControlEdgePCD](http://www.honeywellprocess.com/ControlEdgePCD) or contact your Honeywell account manager.

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