3U Digital-In Board

» **Trust** in your results by designing your application under the use of a module with a wide input voltage range.

» **Relieve** your work load by taking advantage of an efficient pre-configuration.

» **Secure** your application by benefiting of effective protection features.
Applications demanding digital input nodes, require a reasonable, cost effective solution one can rely on. Even harshest of environments aren't an issue. Having this in mind the perfect solution is Kontron's CP381 digital in.

A wide input voltage range, as well as a high nominal potential, and a superior input current, consequently create a very flexible solution.

Many applications in the industrial automation area have to work under the toughest conditions (-40°C up to +85°C), and require nevertheless reliability. A sensible inverse polarity protection, and a high input protection fulfill this task.

An incomplex product is indispensable nowadays. Therefore the CP381 features an API, relieving the connection to establish visualization tools, such as Lab View, Agilent VEE etc. Programmable debouncing, event detection, and input capture and compare features allow a sufficient pre-configuration. Simple connectivity is provided by offering accessories like a cable, or an adapterbox. The isolation to the system secures the board. No matter which operating system is used (Windows® 2000/XP, Windows® XP embedded, VxWorks, or Linux), the CP381 promises satisfaction.

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**Technical Information**

**CompactPCI Interface**

- PCI Target Interface with FPGA, PICMG 2.0 Rev. 3.0 compliant, 32 Bit address/data/33 MHz, 1 BAR, 64 KB memory space, non-prefetchable, Universal signalling voltage (3.3V), serial EEPROM interface, PCI transfer rate up to 132 MB/sec.

**Digital Inputs**

- **Number of Channels**: 30
- **Input Voltage Range**: Low: -3V..+5V, High: +11V..+30V
- **High Nominal Potential**: 24V
- **Input Current**: max. 5mA
- **Channel Connection**: 2 pins per channel
- **Input Protection (ESD)**: 8 kV
- **Input Impedance**: min.: 1.5 KΩ, max.: 6 KΩ @ 30V
- **Input Filter**: 10 kHz (edge frequenzy)
- **Isolation**: 2kV to system
- **Debouncing**: Programmable
- **Miscellaneous**: Inverse Polarity Protection, Event Detection, Input Capture and Compare

**Software Support**

- **Windows® XP, Windows® 2000, Windows® XP embedded, VxWorks®, Linux®**

**Common**

- **Front Panel Connector**: D-Sub 62-pin
- **Front Panel LED's**: 2x green status LED's
- **Dimensions**: 100 mm x 160 mm (3U card size)
- **Temperature Ranges**: 0° C to + 70° C (standard), -40° C to +85° C (extended)
- **Operating Humidity Range**: 0..95% (non-condensing)
- **Weight**: 145 g
- **MTBF**: 370,180 h (acc. MIL-HDBK-217F)

**Ordering Information**

<table>
<thead>
<tr>
<th>Article</th>
<th>Order-No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>CP381</td>
<td>23796</td>
<td>30 channels digital in</td>
</tr>
<tr>
<td>CP381-E2</td>
<td>23797</td>
<td>30 channels digital in, -40°C/+85°C temperature range</td>
</tr>
<tr>
<td>CP-ADAP-I01</td>
<td>25736</td>
<td>Cable and box for CPCI I/O products, 62 pin Dsub on 62 single channels</td>
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<tr>
<td>LIN-DRV-CP381 (1)</td>
<td>26505</td>
<td>Linux driver for CP381, CP381 User’s Manual</td>
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<tr>
<td>WXPE-BSP-CP381 (1)</td>
<td>1022-9856</td>
<td>Windows® XP embedded Board Support Package, CP381 User’s Manual</td>
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<tr>
<td>VXW-DRV-CP381-V6.7</td>
<td>23859</td>
<td>VxWorks® 6.7 driver for CP381, CP381 User’s Manual</td>
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<tr>
<td>VXW-DRV-CP381-V6.8</td>
<td>1045-3426</td>
<td>VxWorks® 6.8 driver for CP381, CP381 User’s Manual</td>
</tr>
</tbody>
</table>

(1) Free of charge downloadable from the Internet

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