

Product type designation

**CP 1616**  
Communications processor CP 1616 PCI card (32 bit; 33/66M Hz; 3.3/5 V) with ASIC ERTEC 400 for connection to PROFINET IO with 4-port real-time switch (RJ45) via development kit DK-16XX PN IO; NCM PC



| Transfer rate                                        |                                                            |
|------------------------------------------------------|------------------------------------------------------------|
| Transfer rate                                        | 100 Mbit/s                                                 |
| Interfaces                                           |                                                            |
| Number of electrical connections                     |                                                            |
| • at the 1st interface / acc. to Industrial Ethernet | 4                                                          |
| • for power supply                                   | 1                                                          |
| Type of electrical connection                        |                                                            |
| • at the 1st interface / acc. to Industrial Ethernet | RJ45 port                                                  |
| • for power supply                                   | Low-voltage socket for hollow plug 3.5 mm (-) / 1.3 mm (+) |
| Supply voltage, current consumption, power loss      |                                                            |
| Type of voltage / of the supply voltage              | DC                                                         |
| Supply voltage                                       |                                                            |
| • 1 / from backplane bus                             | 5 V                                                        |
| • external                                           | 6 ... 9 V                                                  |
| Relative symmetrical tolerance / at DC               |                                                            |
| • at 5 V                                             | 5 %                                                        |
| • at 12 V                                            | 5 %                                                        |

|                                                           |        |
|-----------------------------------------------------------|--------|
| Consumed current                                          |        |
| • 1 / from backplane bus / at DC / maximum                | 0.8 A  |
| • from external supply voltage / at DC / at 6 V / maximum | 0.65 A |
| • from external supply voltage / at DC / at 9 V / maximum | 0.45 A |
| Power loss [W]                                            | 4 W    |
| Power loss [W] / in switch mode / maximum                 | 4.1 W  |

#### Ambient conditions

|                                                                                  |                |
|----------------------------------------------------------------------------------|----------------|
| Ambient temperature                                                              |                |
| • during operation                                                               | 5 ... 70 °C    |
| • during storage                                                                 | -40 ... +60 °C |
| • during transport                                                               | -20 ... +60 °C |
| Relative humidity / at 25 °C / without condensation / during operation / maximum | 95 %           |
| Protection class IP                                                              | IP00           |

#### Design, dimensions and weight

|               |        |
|---------------|--------|
| Module format | PCI    |
| Width         | 18 mm  |
| Height        | 107 mm |
| Depth         | 167 mm |
| Net weight    | 110 g  |

#### Product features, product functions, product components / general

|                                                                   |   |
|-------------------------------------------------------------------|---|
| Number of plug-in cards of same design / plug-in / per PC station | 1 |
| Number of units / Note                                            | - |

#### Performance data

##### Performance data / PROFINET communication / as PN IO controller

|                                                                                           |           |
|-------------------------------------------------------------------------------------------|-----------|
| Software / for PROFINET IO communication / required                                       | No        |
| Number of PN IO devices / on PROFINET IO controller / usable / total                      | 128       |
| Number of PN IO IRT devices / on PROFINET IO controller / usable                          | 64        |
| Amount of data                                                                            |           |
| • as user data for input variables / as PROFINET IO controller / maximum                  | 8192 byte |
| • as user data for input variables / as PROFINET IO controller / maximum                  | 8192 byte |
| • as user data for input variables per PN IO device / as PROFINET IO controller / maximum | 1430 byte |

- as user data for output variables per PN IO device / as PROFINET IO controller / maximum

1430 byte

#### Performance data / PROFINET communication / as PN IO device

|                                                                                                                                  |           |
|----------------------------------------------------------------------------------------------------------------------------------|-----------|
| Amount of data                                                                                                                   |           |
| <ul style="list-style-type: none"> <li>• as user data for input variables / as PROFINET IO device / maximum</li> </ul>           | 1430 byte |
| <ul style="list-style-type: none"> <li>• as user data for input variables / as PROFINET IO device / maximum</li> </ul>           | 1430 byte |
| <ul style="list-style-type: none"> <li>• as user data for input variables / for each sub-module as PROFINET IO device</li> </ul> | 254 byte  |
| <ul style="list-style-type: none"> <li>• as user data for input variables / for each sub-module as PROFINET IO device</li> </ul> | 254 byte  |
| <ul style="list-style-type: none"> <li>• as user data for the consistency area for each sub-module</li> </ul>                    | 254 byte  |
| Number of submodules / per PROFINET IO-Device                                                                                    | 64        |

#### Product functions / management, configuration, engineering

|                                                                                                              |                             |
|--------------------------------------------------------------------------------------------------------------|-----------------------------|
| Product function / MIB support                                                                               | Yes                         |
| Protocol / is supported                                                                                      |                             |
| <ul style="list-style-type: none"> <li>• SNMP v1</li> </ul>                                                  | Yes                         |
| <ul style="list-style-type: none"> <li>• DCP</li> </ul>                                                      | Yes                         |
| <ul style="list-style-type: none"> <li>• LLDP</li> </ul>                                                     | Yes                         |
| Configuration software / required                                                                            | Included in scope of supply |
| Identification & maintenance function                                                                        |                             |
| <ul style="list-style-type: none"> <li>• I&amp;M0 - device-specific information</li> </ul>                   | Yes                         |
| <ul style="list-style-type: none"> <li>• I&amp;M1 – higher-level designation/location designation</li> </ul> | Yes                         |
| <ul style="list-style-type: none"> <li>• I&amp;M2 - installation date</li> </ul>                             | Yes                         |
| <ul style="list-style-type: none"> <li>• I&amp;M3 - comment</li> </ul>                                       | Yes                         |
| <ul style="list-style-type: none"> <li>• I&amp;M4 - signature</li> </ul>                                     | Yes                         |
| <ul style="list-style-type: none"> <li>• I&amp;M4 - OEM data</li> </ul>                                      | Yes                         |

#### Product functions / Diagnostics

|                                                                           |     |
|---------------------------------------------------------------------------|-----|
| Product function                                                          |     |
| <ul style="list-style-type: none"> <li>• Web-based diagnostics</li> </ul> | Yes |
| <ul style="list-style-type: none"> <li>• Port diagnostics</li> </ul>      | Yes |

#### Product functions / Switch

|                                                  |     |
|--------------------------------------------------|-----|
| Product feature / Switch                         | Yes |
| Product function / switch-managed                | No  |
| Product function / with IRT / PROFINET IO switch | Yes |

#### Product functions / redundancy

|                                               |    |
|-----------------------------------------------|----|
| Software / for redundancy function / required | No |
| Product function                              |    |

|                                                           |     |
|-----------------------------------------------------------|-----|
| • Ring redundancy                                         | Yes |
| • Redundancy manager                                      | Yes |
| Protocol / is supported / Media Redundancy Protocol (MRP) | Yes |

#### Standards, specifications, approvals

|                                |                            |
|--------------------------------|----------------------------|
| Standard                       |                            |
| • for EMC                      | 2004/108/EC                |
| • for safety / from CSA and UL | CAN/CSA C22.2 & UL 60950-1 |
| • for emitted interference     | EN 61000-6-3, EN 61000-6-4 |
| • for interference immunity    | EN 61000-6-1, EN 61000-6-2 |
| Certificate of suitability     |                            |
| • CE marking                   | Yes                        |
| • C-Tick                       | Yes                        |

#### Further information / Internet-Links

|                                                   |                                                                                                               |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Internet-Link                                     |                                                                                                               |
| • to website: Selector SIMATIC NET SELECTION TOOL | <a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a>                                         |
| • to website: Industrial communication            | <a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a>                           |
| • to website: Industry Mall                       | <a href="http://www.siemens.com/industrial-controls/mall">http://www.siemens.com/industrial-controls/mall</a> |
| • to website: Information and Download Center     | <a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a>           |
| • to website: Image database                      | <a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a>                       |
| • to website: CAX Download Manager                | <a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>                                           |
| • to website: Industry Online Support             | <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>                       |

#### Security information

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