

Product type designation

**SIPLUS NET CP 443-1 ADVANCED**

SIPLUS NET CP 443-1 Advanced for medial exposure with conformal coating based on 6GK7443-1GX30-0XE0 . "1x 10/100/1000 Mbit/s;" "4x 10/100 Mbit/s (IE switch);" "RJ45 ports;" "ISO; TCP; UDP; PROFINET IO CON TROLLER; S7 communication;" open communication (SEND/RE- CEIVE); S7 routing; IP configu- ration via DHCP/block;"via "IP Access Control List; Clock-" "Time synchronization; extended "Web diagnostics; fast Startup;" "PROFenergy support;" "IP routing; FTP; Web server;" "E-mail" PROFINET CBA, security



Figure similar

Transmission rate	
Transfer rate	
<ul style="list-style-type: none"> <li>at the 1st interface</li> </ul>	10 ... 1000 Mbit/s
<ul style="list-style-type: none"> <li>at the 2nd interface</li> </ul>	10 ... 100 Mbit/s
Interfaces	
Number of interfaces / acc. to Industrial Ethernet	5
Number of electrical connections	
<ul style="list-style-type: none"> <li>at the 1st interface / acc. to Industrial Ethernet</li> </ul>	1
<ul style="list-style-type: none"> <li>at the 2nd interface / acc. to Industrial Ethernet</li> </ul>	4
Type of electrical connection	
<ul style="list-style-type: none"> <li>at the 1st interface / acc. to Industrial Ethernet</li> </ul>	RJ45 port
<ul style="list-style-type: none"> <li>at the 2nd interface / acc. to Industrial Ethernet</li> </ul>	RJ45 port
design of the removable storage / C-PLUG	Yes
Supply voltage, current consumption, power loss	
Type of voltage / of the supply voltage	DC
Supply voltage / 1 / from backplane bus	5 V

Relative symmetrical tolerance / at DC	
<ul style="list-style-type: none"> <li>• at 5 V</li> </ul>	5 %
Consumed current	
<ul style="list-style-type: none"> <li>• from backplane bus / at DC / at 5 V / typical</li> </ul>	1.8 A
Power loss [W]	7.25 W

### Permitted ambient conditions

Ambient temperature	
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>	0 ... 60 °C -40 ... +70 °C -40 ... +70 °C
Ambient condition / relating to ambient temperature - air pressure - installation altitude	-25 ... +70°C at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // -25 ... +60°C at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // -25 ... +50°C at 658 hPa ... 540 hPa (+3500 m ... +5000 m)
Relative humidity / at 25 °C / without condensation / during operation / maximum	100 %
Relative humidity / with condensation / maximum	100 %; r.F., incl. condensation/frost permitted (no commissioning in bedewed state)
Resistance to biologically active substances	
<ul style="list-style-type: none"> <li>• conformity acc. to EN 60721-3-3</li> </ul>	Yes; Compliance with EN 60721-3-3, Class 3B2 mold, fungus, and sponge spores (except fauna). The supplied plug covers must remain in place over the unused interfaces during operation!
Resistance to chemically active substances	
<ul style="list-style-type: none"> <li>• conformity acc. to EN 60721-3-3</li> </ul>	Yes; Compliant with EN 60721-3-3, Class 3C4 incl. salt spray in accordance with EN 60068-2-52 (severity 3); the supplied plug covers must remain in place on the unused interfaces during operation.
Resistance to mechanically active substances	
<ul style="list-style-type: none"> <li>• conformity acc. to EN 60721-3-3</li> </ul>	Yes; Compliant with EN 60721-3-3, Class 3S4 incl. sand, dust; the supplied plug covers must remain in place on the unused interfaces during operation.
Protection class IP	IP20

### Design, dimensions and weight

Module format	Compact module S7-400 single width
Width	25 mm
Height	290 mm
Depth	210 mm
Net weight	0.7 kg

### Product properties, functions, components / general

Number of units	
<ul style="list-style-type: none"> <li>• per CPU / maximum</li> <li>• Note</li> </ul>	14 max. 4 as PN IO ctrl.

### Performance data / open communication

Number of possible connections / for open communication / by means of SEND/RECEIVE blocks / maximum	64
Amount of data	
<ul style="list-style-type: none"> <li>• as user data per ISO connection / for open communication / by means of SEND/RECEIVE blocks / maximum</li> </ul>	8 Kibyte
<ul style="list-style-type: none"> <li>• as user data per ISO on TCP connection / for open communication / by means of SEND/RECEIVE blocks / maximum</li> </ul>	8 Kibyte
<ul style="list-style-type: none"> <li>• as user data per TCP connection / for open communication / by means of SEND/RECEIVE blocks / maximum</li> </ul>	8 Kibyte
<ul style="list-style-type: none"> <li>• as user data per UDP connection / for open IE communication / by means of SEND/RECEIVE blocks / maximum</li> </ul>	2 Kibyte
Number of possible connections / for open communication	
<ul style="list-style-type: none"> <li>• by means of T blocks / maximum</li> </ul>	64
Amount of data	
<ul style="list-style-type: none"> <li>• as user data per ISO on TCP connection / for open communication / by means of T blocks / maximum</li> </ul>	1452 byte

#### Performance data / S7 communication

Number of possible connections / for S7 communication	
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	128
<ul style="list-style-type: none"> <li>• with PG connections / maximum</li> </ul>	2
<ul style="list-style-type: none"> <li>• Note</li> </ul>	when using several CPUs

#### Performance data / multi-protocol mode

Number of active connections / with multi-protocol mode	128
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#### Performance data / IT functions

Number of possible connections	
<ul style="list-style-type: none"> <li>• as client / by means of FTP / maximum</li> </ul>	20
<ul style="list-style-type: none"> <li>• as server / by means of FTP / maximum</li> </ul>	10
Number of possible connections	
<ul style="list-style-type: none"> <li>• as server / by means of HTTP / maximum</li> </ul>	4
<ul style="list-style-type: none"> <li>• as e-mail client / maximum</li> </ul>	1
Amount of data / as user data for email / maximum	8 Kibyte
Storage capacity / of the user memory	
<ul style="list-style-type: none"> <li>• as flash memory file system</li> </ul>	30 Miabyte
<ul style="list-style-type: none"> <li>• as RAM</li> </ul>	16 Miabyte

<ul style="list-style-type: none"> <li>• additionally buffered as RAM via central backup battery</li> </ul>	512 Kibyte
Number of possible write cycles / of the flash memory cells	100000

#### Performance data / PROFINET communication / as PN IO-Controller

Product function / PROFINET IO controller	Yes
Number of PN IO devices / on PROFINET IO controller / usable / total	128
Number of PN IO IRT devices / on PROFINET IO controller / usable	64
Number of external PN IO lines / with PROFINET / per rack	4
Amount of data	
<ul style="list-style-type: none"> <li>• as user data for input variables / as PROFINET IO controller / maximum</li> </ul>	8 Kibyte
<ul style="list-style-type: none"> <li>• as user data for input variables / as PROFINET IO controller / maximum</li> </ul>	8 Kibyte
<ul style="list-style-type: none"> <li>• as user data for input variables per PN IO device / as PROFINET IO controller / maximum</li> </ul>	1433 byte
<ul style="list-style-type: none"> <li>• as user data for output variables per PN IO device / as PROFINET IO controller / maximum</li> </ul>	1433 byte
<ul style="list-style-type: none"> <li>• as user data for input variables per PN IO device / for each sub-module as PROFINET IO controller / maximum</li> </ul>	240 byte
<ul style="list-style-type: none"> <li>• as user data for output variables per PN IO device / for each sub-module as PROFINET IO controller / maximum</li> </ul>	240 byte

#### Performance data / PROFINET CBA

Number of remote connection partners / with PROFINET CBA	64
Number of connections / with PROFINET CBA / total	600
Amount of data	
<ul style="list-style-type: none"> <li>• as user data for digital inputs / with PROFINET CBA / maximum</li> </ul>	8 Kibyte
<ul style="list-style-type: none"> <li>• as user data for digital outputs / with PROFINET CBA / maximum</li> </ul>	8 Kibyte
<ul style="list-style-type: none"> <li>• as user data for arrays and data types / in the case of acyclic transmission / with PROFINET CBA / maximum</li> </ul>	8 Kibyte
<ul style="list-style-type: none"> <li>• as user data for arrays and data types / with PROFINET CBA / with cyclical transfer / maximum</li> </ul>	250 byte
<ul style="list-style-type: none"> <li>• as user data for arrays and data types / with PROFINET CBA / in the case of local interconnection / maximum</li> </ul>	2400 byte

Performance data / PROFINET CBA / remote connection / with acyclic transmission

Refresh time / of the remote interconnections / in the case of acyclic transmission / with PROFINET CBA	100 ms
Number of remote connections to input variables / in the case of acyclic transmission / with PROFINET CBA / maximum	150
Number of remote connections to output variables / in the case of acyclic transmission / with PROFINET CBA / maximum	150
Amount of data	
<ul style="list-style-type: none"> <li>• as user data for remote interconnections with input variables / in the case of acyclic transmission / with PROFINET CBA</li> </ul>	8 Kibyte
<ul style="list-style-type: none"> <li>• as user data for remote interconnections with output variables / in the case of acyclic transmission / with PROFINET CBA</li> </ul>	8 Kibyte

Performance data / PROFINET CBA / remote connection / with cyclic transmission

Refresh time / of the remote interconnections / with PROFINET CBA / with cyclical transfer	10 ms
Number of remote connections to input variables / with PROFINET CBA / with cyclical transfer / maximum	250
Number of remote connections to output variables / with PROFINET CBA / with cyclical transfer / maximum	250
Amount of data	
<ul style="list-style-type: none"> <li>• as user data for remote interconnections with input variables / with PROFINET CBA / with cyclical transfer / maximum</li> </ul>	2000 byte
<ul style="list-style-type: none"> <li>• as user data for remote interconnections with output variables / with PROFINET CBA / with cyclical transfer / maximum</li> </ul>	2000 byte

Performance data / PROFINET CBA / HMI variables via PROFINET / acyclic

Number of connectable HMI stations / for HMI variables / in the case of acyclic transmission / with PROFINET CBA	3
Refresh time / of the HMI variables / in the case of acyclic transmission / with PROFINET CBA	500 ms
Number of HMI variables / in the case of acyclic transmission / with PROFINET CBA / maximum	200
Amount of data / as user data for HMI variables / in the case of acyclic transmission / with PROFINET CBA / maximum	8 Kibyte

Performance data / PROFINET CBA / device-internal connections

Number of internal connections / with PROFINET CBA / maximum	300
Amount of data / of the internal connections / with PROFINET CBA / maximum	2400 byte

#### Performance data / PROFINET CBA / connections to constants

Number of connections with constants / with PROFINET CBA / maximum	500
Amount of data / as user data for interconnections with constants / with PROFINET CBA / maximum	4000 byte

#### Performance data / PROFINET CBA / PROFIBUS proxy functionality

Product function / with PROFINET CBA / PROFIBUS proxy functionality	No
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#### Performance data / telecontrol

Protocol / is supported	
• TCP/IP	Yes
Product function / MIB support	Yes
Protocol / is supported	
• SNMP v1	Yes
• DCP	Yes
• LLDP	Yes
Configuration software	
• required	STEP 7 V5.5 SP3 or higher / STEP 7 Professional V12 (TIA Portal) or higher
• for PROFINET CBA / required	SIMATIC iMap V3.0 SP1 and higher

#### Product functions / Diagnosis

Product function / Web-based diagnostics	Yes
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#### Product functions / switch

Product feature / Switch	Yes
Product function	
• switch-managed	No
• with IRT / PROFINET IO switch	Yes
• Configuration with STEP 7	Yes

#### Product functions / Redundancy

Product function	
• Ring redundancy	Yes
• Redundancy manager	Yes
Protocol / is supported / Media Redundancy Protocol (MRP)	Yes

#### Product functions / Security

Firewall version	stateful inspection
Product function / with VPN connection	IPSec

Type of encryption algorithms / with VPN connection	AES-256, AES-192, AES-128, 3DES-168, DES-56
Type of authentication procedure / with VPN connection	Preshared key (PSK), X.509v3 certificates
Type of hashing algorithms / with VPN connection	MD5, SHA-1
Number of possible connections / with VPN connection	32
Product function	
<ul style="list-style-type: none"> <li>• password protection for Web applications</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• ACL - IP-based</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• ACL - IP-based for PLC/routing</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• switch-off of non-required services</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Blocking of communication via physical ports</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• log file for unauthorized access</li> </ul>	No

### Product functions / Time

Product function / SICLOCK support	Yes
Product function / pass on time synchronization	Yes
Protocol / is supported	
<ul style="list-style-type: none"> <li>• NTP</li> </ul>	Yes

### Accessories

### Further Information / Internet Links

Internet-Link	
<ul style="list-style-type: none"> <li>• to website: Selector SIMATIC NET SELECTION TOOL</li> </ul>	<a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a>
<ul style="list-style-type: none"> <li>• to website: Industrial communication</li> </ul>	<a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a>
<ul style="list-style-type: none"> <li>• to website: Information and Download Center</li> </ul>	<a href="http://www.siemens.com/automation/net/catalog">http://www.siemens.com/automation/net/catalog</a>
<ul style="list-style-type: none"> <li>• to website: Image database</li> </ul>	<a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a>
<ul style="list-style-type: none"> <li>• to website: CAx Download Manager</li> </ul>	<a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>

### Security information

Security information	<p>Siemens provides products and solutions with industrial security functions that support the secure operation of plants, solutions, machines, equipment and/or networks. They are important components in a holistic industrial security concept. With this in mind, Siemens' products and solutions undergo continuous development. Siemens recommends strongly that you regularly check for product updates. For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action(e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered. For more information about industrial security, visit <a href="http://www.siemens.com/industrialsecurity">http://www.siemens.com/industrialsecurity</a>. To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit <a href="http://support.automation.siemens.com">http://support.automation.siemens.com</a>. (V3.4)</p>
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