



Communications processor CP 443-1 Advanced 1x 10/100/1000 Mbit/s, 4x 10/100 Mbit/s (IE switch) RJ45 ports; ISO; TCP; UDP; PROFINET IO controller; S7 communication; Open Communication (SEND/RECEIVE); S7 routing; IP configuration via DHCP/block; IP Access Control List; Time synchronization; extended web diagnostics; Fast Startup; PROFINET energy support; IP routing; FTP; Web server; E-mail; PROFINET CBA, security

transfer rate	
transfer rate	
• at the 1st interface	10 ... 1000 Mbit/s
• at the 2nd interface	10 ... 100 Mbit/s
interfaces	
number of interfaces / acc. to Industrial Ethernet	5
number of electrical connections	
• at the 1st interface / acc. to Industrial Ethernet	1
• at the 2nd interface / acc. to Industrial Ethernet	4
type of electrical connection	
• at the 1st interface / acc. to Industrial Ethernet	RJ45 port
• at the 2nd interface / acc. to Industrial Ethernet	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	
• at 5 V	5 %
consumed current	
• from backplane bus / at DC / at 5 V / typical	1.8 A
power loss [W]	9 W
ambient conditions	
ambient temperature	
• during operation	0 ... 60 °C
• during storage	-40 ... +70 °C
• during transport	-40 ... +70 °C
relative humidity	
• at 25 °C / without condensation / during operation / maximum	95 %
protection class IP	IP20
design, dimensions and weights	
module format	Compact module S7-400 single width
width	25 mm
height	290 mm
depth	210 mm
net weight	0.7 kg

product features, product functions, product components / general	
number of units <ul style="list-style-type: none"> • per CPU / maximum • note 	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
data volume <ul style="list-style-type: none"> • as user data per ISO connection / for open communication / by means of SEND/RECEIVE blocks / maximum • as user data per ISO on TCP connection / for open communication / by means of SEND/RECEIVE blocks / maximum • as user data per TCP connection / for open communication / by means of SEND/RECEIVE blocks / maximum • as user data per UDP connection / for open IE communication / by means of SEND/RECEIVE blocks / maximum 	8 Kibyte 8 Kibyte 8 Kibyte 2 Kibyte
number of possible connections / for open communication <ul style="list-style-type: none"> • by means of T blocks / maximum 	64
data volume <ul style="list-style-type: none"> • as user data per ISO on TCP connection / for open communication / by means of T blocks / maximum 	1452 byte
performance data / S7 communication	
number of possible connections / for S7 communication <ul style="list-style-type: none"> • maximum • with PG connections / maximum 	128; when using several CPUs 2
performance data / multi-protocol mode	
number of active connections / with multi-protocol mode	128
performance data / IT functions	
number of possible connections <ul style="list-style-type: none"> • as client / by means of FTP / maximum • as server / by means of FTP / maximum 	20 10
number of possible connections <ul style="list-style-type: none"> • as server / by means of HTTP / maximum • as email client / maximum 	4 1
data volume / as user data for email / maximum	8 Kibyte
storage capacity / of the user memory <ul style="list-style-type: none"> • as flash memory file system • as RAM • additionally buffered as RAM via central backup battery 	30 Mibyte 16 Mibyte 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 / operable / total	128
number of PN IO IRT devices / on PROFINET IO controller / operable	64
number of external PN IO lines / with PROFINET / per rack	4
data volume <ul style="list-style-type: none"> • as user data for input variables / as PROFINET IO controller / maximum • as user data for output variables / as PROFINET IO controller / maximum • as user data for input variables per PN IO device / as PROFINET IO controller / maximum • as user data for output variables per PN IO device / as PROFINET IO controller / maximum 	4 Kibyte 4 Kibyte 1433 byte 1433 byte

<ul style="list-style-type: none"> • as user data for input variables per PN IO device / for each sub-module as PROFINET IO controller / maximum 	240 byte
<ul style="list-style-type: none"> • as user data for output variables per PN IO device / for each sub-module as PROFINET IO controller / maximum 	240 byte
performance data / PROFINET CBA	
number of remote connection partners / with PROFINET CBA	64
number of connections / with PROFINET CBA / total	600
data volume	
<ul style="list-style-type: none"> • as user data for digital inputs / with PROFINET CBA / maximum 	8 Kibyte
<ul style="list-style-type: none"> • as user data for digital outputs / with PROFINET CBA / maximum 	8 Kibyte
<ul style="list-style-type: none"> • as user data for arrays and data types / in the case of acyclic transmission / with PROFINET CBA / maximum 	8 Kibyte
<ul style="list-style-type: none"> • as user data for arrays and data types / with PROFINET CBA / with cyclical transfer / maximum 	250 byte
<ul style="list-style-type: none"> • as user data for arrays and data types / with PROFINET CBA / in the case of local interconnection / maximum 	2400 byte
performance data / PROFINET CBA / remote interconnection / with acyclic transfer	
update 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
data volume	
<ul style="list-style-type: none"> • as user data for remote interconnections with input variables / in the case of acyclic transmission / with PROFINET CBA 	8 Kibyte
<ul style="list-style-type: none"> • as user data for remote interconnections with output variables / in the case of acyclic transmission / with PROFINET CBA 	8 Kibyte
performance data / PROFINET CBA / remote interconnection / with cyclical transfer	
update 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
data volume	
<ul style="list-style-type: none"> • as user data for remote interconnections with input variables / with PROFINET CBA / with cyclical transfer / maximum 	2000 byte
<ul style="list-style-type: none"> • as user data for remote interconnections with output variables / with PROFINET CBA / with cyclical transfer / maximum 	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
update 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
data volume / as user data for HMI variables / in the case of acyclic transmission / with PROFINET CBA / maximum	8 Kibyte
performance data / PROFINET CBA / device-internal interconnections	
number of internal connections / with PROFINET CBA / maximum	300
data volume / of the internal connections / with PROFINET	2400 byte

CBA / maximum	
performance data / PROFINET CBA / interconnections to constants	
number of connections with constants / with PROFINET CBA / maximum	500
data volume / 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
product functions / management, configuration, engineering	
product function / MIB support	Yes
protocol / is supported	
• SNMP v1	Yes
• SNMP v3	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 / diagnostics	
product function / web-based diagnostics	Yes
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	
• password protection for Web applications	Yes
• ACL - IP-based	Yes
• ACL - IP-based for PLC/routing	Yes
• switch-off of non-required services	Yes
• blocking of communication via physical ports	Yes
• log file for unauthorized access	No
product functions / time	
product function / SICLOCK support	Yes
product function / pass on time synchronization	Yes
protocol / is supported	
• NTP	Yes
standards, specifications, approvals / hazardous environments	
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes
further information / internet-Links	
Internet-Link	

- to web page: selection aid TIA Selection Tool
- to website: Industrial communication
- to website: Industry Mall
- to website: Information and Download Center
- to website: Image database
- to website: CAX-Download-Manager
- to website: Industry Online Support

<http://www.siemens.com/tia-selection-tool>
<http://www.siemens.com/simatic-net>
<https://mall.industry.siemens.com>
<http://www.siemens.com/industry/infocenter>
<http://automation.siemens.com/bilddb>
<http://www.siemens.com/cax>
<https://support.industry.siemens.com>

security information

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