

### product type designation



### CP 1542SP-1 IRC

Communications Processor CP 1542SP-1 IRC for connection of an SIMATIC S7-ET 200SP to Industrial Ethernet, SINAUT ST7, TeleControl Server Basic, IEC 60870-5-104 or DNP3 protocol to a control center; Open IE communication (TCP/IP, ISO-on-TCP, UDP), IP broadcast/multicast, SNMPV1, DHCP, secure email, IPv4/IPv6, support of SINEMA Remote Connect with autoconfiguration; time-of-day synchronization via NTP, access to web server of CPU, BusAdapter required.

transfer rate	
transfer rate	
<ul style="list-style-type: none"> <li>at the 1st interface</li> </ul>	10 ... 100 Mbit/s
interfaces	
number of interfaces / according to Industrial Ethernet	1
number of electrical connections	
<ul style="list-style-type: none"> <li>at the 1st interface / according to Industrial Ethernet</li> </ul>	2
type of electrical connection	
<ul style="list-style-type: none"> <li>at the 1st interface / according to Industrial Ethernet</li> </ul>	via ET 200SP bus adapter (RJ45, FC, SCRJ), integrated switch
supply voltage, current consumption, power loss	
type of voltage / of the supply voltage	DC
supply voltage	24 V
supply voltage	19.2 ... 28.8 V
power loss [W]	6 W
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> <li>for vertical installation / during operation</li> <li>for horizontally arranged busbars / during operation</li> <li>during storage</li> <li>during transport</li> </ul>	-30 ... +50 °C -30 ... +60 °C -40 ... +70 °C -40 ... +70 °C
relative humidity	
<ul style="list-style-type: none"> <li>at 25 °C / without condensation / during operation / maximum</li> </ul>	95 %
protection class IP	IP20
design, dimensions and weights	
width	60 mm
height	117 mm
depth	74 mm
net weight	0.18 kg
fastening method	
<ul style="list-style-type: none"> <li>35 mm top hat DIN rail mounting</li> </ul>	Yes
product features, product functions, product components / general	
number of units	
<ul style="list-style-type: none"> <li>per CPU / maximum</li> <li>note</li> </ul>	2 2 CPs can be plugged in per CPU, simultaneous operation with BA Send and CM DP is possible
performance data / open communication	
number of possible connections / for open communication	
<ul style="list-style-type: none"> <li>by means of T blocks / maximum</li> </ul>	32

data volume	
<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>	65536 byte
<b>performance data / S7 communication</b>	
number of possible connections / for S7 communication	
<ul style="list-style-type: none"> <li>maximum</li> </ul>	16
<ul style="list-style-type: none"> <li>with OP connections / maximum</li> </ul>	16
<b>performance data / multi-protocol mode</b>	
number of active connections / with multi-protocol mode	32
<b>performance data / IT functions</b>	
number of possible connections	
<ul style="list-style-type: none"> <li>as email client / maximum</li> </ul>	1
<b>performance data / telecontrol</b>	
suitability for use	
<ul style="list-style-type: none"> <li>node station</li> </ul>	No
<ul style="list-style-type: none"> <li>substation</li> </ul>	Yes
<ul style="list-style-type: none"> <li>TIM control center</li> </ul>	No
control center connection	IEC 60870-5, DNP3, (Modbus TCP by block solutions of the CPU) capable control stations, connection to Telecontrol Server Basic and ST7 capable control station
<ul style="list-style-type: none"> <li>by means of a permanent connection</li> </ul>	supported
<ul style="list-style-type: none"> <li>by means of demand-oriented connection</li> </ul>	supported
<ul style="list-style-type: none"> <li>note</li> </ul>	Connection to SCADA system by IEC 60870-5 104, DNP3, Telecontrol Server Basic and ST7 capable control center
protocol / is supported	
<ul style="list-style-type: none"> <li>DNP3</li> </ul>	Yes
<ul style="list-style-type: none"> <li>IEC 60870-5</li> </ul>	Yes
<ul style="list-style-type: none"> <li>SINAUT ST7 protocol</li> </ul>	Yes
product function / data buffering if connection is aborted	Yes; TCSB 64000 events, SINAUT ST7 32000 telegrams, DNP3 100000 events, IEC 60870-5 100000 events
number of data points per station / maximum	1500
number of stations / for direct communication / with Telecontrol Server Basic	
<ul style="list-style-type: none"> <li>in send direction / maximum</li> </ul>	3
<ul style="list-style-type: none"> <li>in receive direction / maximum</li> </ul>	15
<b>product functions / management, configuration, engineering</b>	
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>SNMP v3</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	
<ul style="list-style-type: none"> <li>required</li> </ul>	STEP 7 Professional V14 (TIA Portal) or higher
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
<b>product functions / diagnostics</b>	
product function / web-based diagnostics	Yes; via ET 200SP CPU
<b>product functions / security</b>	
product function / with VPN connection	SINEMA RC
product function	
<ul style="list-style-type: none"> <li>blocking of communication via physical ports</li> </ul>	Yes
<b>product functions / time</b>	
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
<ul style="list-style-type: none"> <li>NTP (secure)</li> </ul>	No
time synchronization	
<ul style="list-style-type: none"> <li>from NTP-server</li> </ul>	Yes
<ul style="list-style-type: none"> <li>from control center</li> </ul>	Yes

**standards, specifications, approvals / hazardous environments**

certificate of suitability / CCC / for hazardous zone according to GB standard

Yes

- as marking

Ex nA IIC T4 Gc

**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**

security information

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