

### product type designation



### SC646-2C

SCALANCE SC646-2C Industrial Security Appliance; For protection of devices and networks in discrete manufacturing and the process industry for protection of the industrial communication with firewall and VPN; Further functions: address conversion (NAT/NAPT); Connection to SINEMA RC; 4x ports electrical 10/100/1000 Mbit/s RJ45 and 2x combo port electrical or optical; 10/100/1000 Mbit/s RJ45 or 100 Mbit/s SFP or 1000 Mbit/s SFP.

transfer rate	
transfer rate	10 Mbit/s, 100 Mbit/s, 1000 Mbit/s
interfaces	
number of electrical/optical connections / for network components or terminal equipment / maximum	6
number of electrical connections	
• for signaling contact	1
• for power supply	1
• for redundant voltage supply	1
type of electrical connection	
• for signaling contact	2-pole terminal block
• for power supply	4-pole terminal block
design of the removable storage / C-PLUG	Yes
signal inputs/outputs	
number of electrical connections	
• for digital input signals	1
type of electrical connection	
• for digital input signals	2-pole terminal block
operating voltage / of the signaling contacts / at DC / rated value	24 V
operational current / of the signaling contacts / at DC / maximum	0.1 A
supply voltage, current consumption, power loss	
supply voltage / 1 / rated value	24 V; (with plugged-in SFPs)
power loss [W] / 1 / rated value	9.6 W
supply voltage / 1 / rated value	9.6 ... 31.2 V
consumed current / 1 / maximum	0.4 A
ambient conditions	
ambient temperature	
• during operation	-40 ... +70 °C
• during storage	-40 ... +85 °C
• during transport	-40 ... +85 °C
relative humidity / at 25 °C / without condensation / during operation / maximum	95 %
protection class IP	IP20
design, dimensions and weights	
design	compact
width	60 mm
height	145 mm

depth	125 mm
net weight	0.58 kg
fastening method	Fixing bolt with additional screw protection
fastening method	
<ul style="list-style-type: none"> <li>• 35 mm top hat DIN rail mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• S7-300 rail mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• S7-1500 rail mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• wall mounting</li> </ul>	Yes
<b>product features, product functions, product components / general</b>	
product function / DynDNS client	Yes
<b>product functions / management, configuration, engineering</b>	
product function	
<ul style="list-style-type: none"> <li>• CLI</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• web-based management</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• MIB support</li> </ul>	Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>• HTTP</li> </ul>	No
<ul style="list-style-type: none"> <li>• SNMP v1</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v2</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v3</li> </ul>	Yes
type of configuration	WBM, CLI, SNMP
<b>product functions / diagnostics</b>	
product function	
<ul style="list-style-type: none"> <li>• SysLog</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• packet filter log</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• audit log</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• system log</li> </ul>	Yes
<b>product functions / DHCP</b>	
product function	
<ul style="list-style-type: none"> <li>• DHCP client</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DHCP server - internal network</li> </ul>	Yes
<b>product functions / routing</b>	
product function / static IP routing	Yes
<b>product functions / security</b>	
firewall version	stateful inspection
product function / with VPN connection	IPsec, OpenVPN (as client for SINEMA RC)
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, SHA-256, SHA-384, SHA-512
number of possible connections / with VPN connection	200
product function	
<ul style="list-style-type: none"> <li>• password protection</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• bandwidth limitation</li> </ul>	No
<ul style="list-style-type: none"> <li>• NAT/NAPT</li> </ul>	Yes
<b>product functions / redundancy</b>	
product function	
<ul style="list-style-type: none"> <li>• ring redundancy</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• High Speed Redundancy Protocol (HRP)</li> </ul>	Yes
protocol / is supported / Media Redundancy Protocol (MRP)	Yes
<b>product functions / time</b>	
protocol / is supported / NTP	Yes
product feature / hardware real time clock w. battery backup	Yes
<b>standards, specifications, approvals</b>	
standard	
<ul style="list-style-type: none"> <li>• for FM</li> </ul>	FM 3611 (available soon)
<ul style="list-style-type: none"> <li>• for safety / from CSA and UL</li> </ul>	UL 60950 / CSA C22.2 No. 60950-1-03, CSA C22.2 No. 213-M1987 (in preparation)

<ul style="list-style-type: none"> <li>• for emitted interference</li> <li>• for interference immunity</li> </ul>	EN 61000-6-4: 2007 EN 61000-6-2: 2005
certificate of suitability <ul style="list-style-type: none"> <li>• CE marking</li> <li>• C-Tick</li> </ul>	AS/NZS 2064 (Class A), EN 61000-6-2, EN 61000-6-4 Yes Yes
<b>standards, specifications, approvals / marine classification</b>	
Marine classification association <ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> <li>• French marine classification society (BV)</li> <li>• DNV GL</li> <li>• Korean Register of Shipping (KRS)</li> <li>• Lloyds Register of Shipping (LRS)</li> <li>• Nippon Kaiji Kyokai (NK)</li> <li>• Polski Rejestr Statkow (PRS)</li> <li>• Royal Institution of Naval Architects (RINA)</li> </ul>	Yes Yes Yes Yes Yes Yes Yes
<b>standards, specifications, approvals / hazardous environments</b>	
standard / for hazardous zone	EN 60079-0: 2006, EN60079-15: 2005, II 3 G Ex nA IIC T4 Gc, KEMA 07ATEX0145 X
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes
<b>accessories</b>	
product extension / optional / C-PLUG	Yes
<b>further information / internet-Links</b>	
Internet-Link <ul style="list-style-type: none"> <li>• to website: Industrial communication</li> <li>• to website: Industry Mall</li> <li>• to website: Information and Download Center</li> <li>• to website: Image database</li> <li>• to website: CAx-Download-Manager</li> <li>• to website: Industry Online Support</li> </ul>	<a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a> <a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a> <a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a> <a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a> <a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a> <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>
<b>security information</b>	
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