## **SIEMENS**

#### Data sheet

### 6GK5216-0BA00-2AC2



SCALANCE XC216 manageable layer 2 IE Switch; 16X 10/100 Mbit/s RJ45-Ports; 1x console port, Diagnostic LED; Redundant power supply; Temp. range -40°C to +70 °C Mounting: Standard Mounting Rail/S7 Profile Rail/Wall Office redundancy functions features (RSTP, VLAN ,...); PROFINET IO Device; Ethernet/IP compliance C-PLUG shaft;

Product type designation	SCALANCE XC216
Transfer rate	
Transfer rate	10 Mbit/s, 100 Mbit/s
Interfaces / for communication / Integrated	
Number of electrical connections	
• for network components or terminal equipment	16; RJ45
Number of 10/100 Mbit/s RJ45 ports / Integrated	
with securing collar	16
Interfaces / other	
Number of electrical connections	
• for operator console	1
<ul><li>for signaling contact</li></ul>	1
• for power supply	1
<ul> <li>for redundant voltage supply</li> </ul>	1
Type of electrical connection	
• for operator console	RJ11
<ul> <li>for signaling contact</li> </ul>	2-pole terminal block
• for power supply	4-pole terminal block

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design of the removable storage	V
• C-PLUG	Yes
Signal inputs/outputs	
Operating voltage / of the signaling contacts	
• at DC / Rated value	24 V
Operating current / of the signaling contacts	
• at DC / maximum	0.1 A
Supply voltage, current consumption, power loss	
Type of voltage / of the supply voltage	DC
Supply voltage	
● external	24 V
external / minimum	9.6 V
external / maximum	31.2 V
Supply voltage / 4 / Rated value	
<ul> <li>Consumed current / 4 / at rated supply voltage /</li> </ul>	0.275 A
maximum	
Product component / fusing at power supply input	Yes
Fuse protection type / at input for supply voltage	2.5 A / 125 V
Consumed current / maximum	0.55 A
Power loss [W]	
• at DC / at 24 V	6.6 W
Ambient conditions	
Ambient temperature	
Ambient temperature  • during operation	-40 +70 °C
	-40 +70 °C -40 +85 °C
• during operation	
<ul><li>during operation</li><li>during storage</li></ul>	-40 +85 °C
<ul><li>during operation</li><li>during storage</li><li>during transport</li></ul>	-40 +85 °C
<ul> <li>during operation</li> <li>during storage</li> <li>during transport</li> <li>Relative humidity</li> <li>at 25 °C / without condensation / during operation / maximum</li> </ul>	-40 +85 °C -40 +85 °C
<ul> <li>during operation</li> <li>during storage</li> <li>during transport</li> </ul> Relative humidity <ul> <li>at 25 °C / without condensation / during</li> </ul>	-40 +85 °C -40 +85 °C
<ul> <li>during operation</li> <li>during storage</li> <li>during transport</li> <li>Relative humidity</li> <li>at 25 °C / without condensation / during operation / maximum</li> </ul>	-40 +85 °C -40 +85 °C 95 %
<ul> <li>during operation</li> <li>during storage</li> <li>during transport</li> <li>Relative humidity</li> <li>at 25 °C / without condensation / during operation / maximum</li> <li>Protection class IP</li> </ul>	-40 +85 °C -40 +85 °C 95 %
during operation     during storage     during transport  Relative humidity     at 25 °C / without condensation / during operation / maximum  Protection class IP  Design	-40 +85 °C -40 +85 °C  95 %  IP20 compact 120 mm 147 mm
during operation     during storage     during transport  Relative humidity     at 25 °C / without condensation / during operation / maximum  Protection class IP  Design  Width  Height  Depth	-40 +85 °C -40 +85 °C  95 %  IP20 compact 120 mm 147 mm 125 mm
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<ul> <li>during operation</li> <li>during storage</li> <li>during transport</li> <li>Relative humidity</li> <li>at 25 °C / without condensation / during operation / maximum</li> <li>Protection class IP</li> <li>Design</li> <li>Width</li> <li>Height</li> <li>Depth</li> <li>Net weight</li> <li>Material / of the enclosure</li> </ul>	-40 +85 °C -40 +85 °C  95 %  IP20  compact 120 mm  147 mm  125 mm  0.8 kg
<ul> <li>during operation</li> <li>during storage</li> <li>during transport</li> <li>Relative humidity         <ul> <li>at 25 °C / without condensation / during operation / maximum</li> </ul> </li> <li>Protection class IP         <ul> <li>Design</li> <li>Width</li> <li>Height</li> <li>Depth</li> </ul> </li> <li>Net weight         <ul> <li>Material / of the enclosure</li> </ul> </li> <li>Mounting type</li> </ul>	-40 +85 °C -40 +85 °C  95 %  IP20 compact 120 mm 147 mm 125 mm 0.8 kg Polycarbonate (PC-GF10) / pressure die cast aluminum
<ul> <li>during operation</li> <li>during storage</li> <li>during transport</li> <li>Relative humidity         <ul> <li>at 25 °C / without condensation / during operation / maximum</li> </ul> </li> <li>Protection class IP         <ul> <li>Design</li> </ul> </li> <li>Width</li> <li>Height</li> <li>Depth</li> </ul> <li>Net weight</li> <li>Material / of the enclosure</li> <li>Mounting type         <ul> <li>35 mm DIN rail mounting</li> </ul> </li>	-40 +85 °C -40 +85 °C  95 %  IP20 compact 120 mm 147 mm 125 mm 0.8 kg Polycarbonate (PC-GF10) / pressure die cast aluminum

Product features, product functions, product components / general	
Cascading in the case of a redundant ring / at	50
reconfiguration time of <\~0.3\~s	
Cascading in cases of star topology	any (depending only on signal propagation time)
Product function / QoS according to DSCP	Yes
Product feature	
<ul> <li>Cut Through switching method</li> </ul>	No
Store & Forward switching method	Yes

Product functions / management, configuration, eng	incering
Product function	meering
• CLI	Yes
web-based management	Yes
MIB support	Yes
TRAPs via email	Yes
Configuration with STEP 7	Yes
• RMON	Yes
SMTP server	No
Port mirroring	Yes
multiport mirroring	Yes
• CoS	Yes
PROFINET IO diagnosis	Yes
PROFINET conformity class	В
Product function / switch-managed	Yes
Telegram length / for Ethernet / maximum	1632 byte
Protocol / is supported	
● Telnet	Yes
• HTTP	Yes
• HTTPS	Yes
• TFTP	Yes
• BOOTP	No
• GMRP	Yes
• DCP	Yes
• LLDP	Yes
• EtherNet/IP	Yes
• SNMP v1	Yes
• SNMP v2	Yes
• SNMP v3	Yes
• IGMP (snooping/querier)	Yes
Identification & maintenance function	
<ul> <li>I&amp;M0 - device-specific information</li> </ul>	Yes
<ul> <li>I&amp;M1 – higher-level designation/location designation</li> </ul>	Yes

Product functions / Diagnostics	
Product function	
<ul> <li>Port diagnostics</li> </ul>	Yes
Statistics Packet Size	Yes
Statistics packet type	Yes
Error statistics	Yes
SysLog	Yes
Product functions / VLAN	
Product function	
<ul> <li>VLAN - port based</li> </ul>	Yes
<ul> <li>VLAN - protocol-based</li> </ul>	No
VLAN - IP-based	No
Number of VLANs / maximum	257
Number of VLANs - dynamic / maximum	257
Protocol / is supported / GVRP	Yes
Product functions / DHCP	
Product function	
DHCP server	Yes
DHCP client	Yes
DHCP Option 82	Yes
DHCP Option 66	Yes
DHCP Option 67	Yes
Product functions / redundancy	
Product function	
<ul> <li>of the PROFINET IO device / is supported / PROFINET system redundancy (S2)</li> </ul>	Yes
Ring redundancy	Yes
<ul> <li>High Speed Redundancy Protocol (HRP)</li> </ul>	Yes
<ul> <li>high speed redundancy protocol (HRP) with redundancy manager</li> </ul>	Yes
<ul> <li>high speed redundancy protocol (HRP) with standby redundancy</li> </ul>	Yes
Protocol / is supported / Media Redundancy Protocol (MRP)	Yes
Product function	
<ul> <li>media redundancy protocol (MRP) with redundancy manager</li> </ul>	Yes
• redundancy procedure STP	Yes
• redundancy procedure RSTP	Yes
• redundancy procedure MSTP	Yes

<ul> <li>Parallel Redundancy Protocol (PRP)/operation in the PRP-network</li> </ul>	Yes
<ul> <li>Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA)</li> </ul>	No
Passive listening	Yes
Protocol / is supported	
• LACP	Yes

Product functions / Security	
Product function	
• IEEE 802.1x (radius)	Yes
<ul> <li>Broadcast/Multicast/Unicast Limiter</li> </ul>	Yes
<ul> <li>broadcast blocking</li> </ul>	Yes
Protocol / is supported	
• SSH	Yes
• SSL	Yes

Product functions / time	
Product function	
<ul> <li>SICLOCK support</li> </ul>	Yes
NTP-client	Yes
SNTP client	Yes
Protocol / is supported	
• NTP	Yes
• SNTP	Yes

Standards, specifications, approvals / CE	
Certificate of suitability / CE marking	Yes
Product conformity / according to EMC-guideline	2014/30/EU
Standard	
<ul> <li>for EMC interference emission</li> </ul>	EN 61000-6-4, EN 50121-4
• for immunity to EMI	EN 61000-6-2, EN 50121-4
Certificate of suitability / RoHS conformity	Yes; 2011/65/EU

# Standards, specifications, approvals / hazardous environments Certificate of suitability

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• ATEX	Yes; EN 60079-0, EN 60079-15
• for ATEX / as marking	II 3 G Ex nA II T4 Gc
• for ATEX / as certificate	KEMA 07ATEX0145 X
• IECEx	Yes; IEC 60079-0, IEC 60079-15
• for IECEx / as marking	Ex nA II T4 Gc
• for IECEx / as certificate	IECEx DEK 14.0025X
• for cULus HazLoc / as marking	CL1, DIV2, Group A,B,C,D T4, CL1, Zone 2, Group IIC, T4
• for cULus HazLoc / as File Nr.	E240480 (NWHP, NWHP7)

• FM registration Yes; FM class 3600:2011, FM class 3611:2004, FM class

Yes

3810:2005, ANSI/ISA-61010-1:2004

• for FM / as marking CL1, DIV2, group A,B,C,D T4, CL1, Zone 2, group IIC, T4 Ta: -

40 °C +70 °C

• for FM / as certificate FM16US0205X

#### Standards, specifications, approvals / other

Certificate of suitability

Railway application in accordance with EN

50121-4

Regulatory Compliance Mark (RCM)

• for UL 61010-2-201 / as File Nr. E85972 (NRAQ, NRAQ7)

• for UL 60950-1 / as File Nr. E115352 (NWGQ, NWGQ7)

• EAC approval Yes

#### Standards, specifications, approvals / marine classification

Marine classification association

American Bureau of Shipping Europe Ltd.

Yes

(ABS)

Bureau Veritas (BV)
 Yes

• DNV GL Yes

Korean Register of Shipping (KRS)

Lloyds Register of Shipping (LRS)

Yes

Nippon Kaiji Kyokai (NK)
 Yes

Polski Rejestr Statkow (PRS)
 Yes

• Royal Institution of Naval Architects (RINA)

Yes

#### Standards, specifications, approvals / Product conformity

MTBF 48 y

#### accessories

Product extension / optional / C-PLUG Yes

#### Further information / Internet-Links

Internet-Link

• to website: Selector SIMATIC NET <a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a>

SELECTION TOOL

• 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="https://mall.industry.siemens.com">https://mall.industry.siemens.com</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

Security information

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. Thirdparty products that may be in use should also be considered. For more information about industrial security, visit http://www.siemens.com/industrialsecurity. To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit http://support.automation.siemens.com. (V3.4)

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