# **SIEMENS**

## Data sheet

6GK5216-0BA00-2AB2

Product description



Preset for PROFINET mode! SCALANCE XB216 managed Layer 2 IE Switch, 16X 10/100 Mbit/s RJ45 ports, 1x console port, Diagnostics LEDs Redundant power

supply temp. range 0 °C to +60 °C; Mounting onto standard rail, PROFINET IO device Ethernet/IP certificate, Default PROFINET

Product type designation	SCALANCE XB216
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
Interfaces / other	
Number of electrical connections	
• for operator console	1
• for management purposes	1
• for power supply	1
<ul> <li>for redundant voltage supply</li> </ul>	1
Type of electrical connection	
• for operator console	RJ11
• for management purposes	RJ45
• for power supply	6-pole terminal block
Supply voltage, current consumption, power loss	

Type of voltage / of the supply voltage	DC
Supply voltage	
<ul><li>external</li></ul>	24 V
• external / minimum	19.2 V
• external / maximum	28.8 V
Product component / fusing at power supply input	Yes
Consumed current / maximum	0.28 A

Ambient conditions	
Ambient temperature	
<ul><li>during operation</li></ul>	0 60 °C
during storage	-40 +70 °C
during transport	-40 +70 °C
Relative humidity	
<ul> <li>at 25 °C / without condensation / during operation / maximum</li> </ul>	95 %
Protection class IP	IP20

Design, dimensions and weights	
Design	Box
Width	80 mm
Height	117 mm
Depth	109 mm
Net weight	0.4 kg
Material / of the enclosure	Plastic
Mounting type	
• 35 mm DIN rail mounting	Yes
wall mounting	No
S7-300 rail mounting	No
• S7-1500 rail mounting	No

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 functions / management, configuration, engineering Product function CLI web-based management MIB support TRAPs via email Configuration with STEP 7 RMON Port mirroring Yes Yes Yes Yes

• COS     • with IRT / PROFINET IO switch     • PROFINET IO diagnosis     PROFINET IO diagnosis     PROFINET IO diagnosis     PROFINET Conformity class     B Product function / switch-managed     Telegram length / for Ethernet / maximum     1522 byte Protocol / is supported      **Telnet     **Telnet     **Telnet     **Yes     •*ITTP     **Yes     •*INDOPP     **POPP     **EtherNet/IP     **Yes     •*SMMP v1	<ul> <li>multiport mirroring</li> </ul>	No
PROFINET IO diagnosis  PROFINET conformity class  Product function / switch-managed  Protocol / is supported  Telegram length / for Ethernet / maximum  1522 byte  Protocol / is supported  Telnet  + Telnet  + HTTP  Telnet  + HTTP  + Yes  - HTTPS  - FTP  - FTP  - BOOTP  - BOOTP  - BOOTP  - BOOP  - LLDP  - EtherNet/IP  - SNMP v1  - SNMP v2  - SNMP v2  - SNMP v3  - IGMP (snooping/querier)  - I&MO - device-specific information  - Product functions  - Product function  - Product functions  - Yes  - Statistics Packet Size  - Statistics Packet Size  - Statistics packet type  - Error statistics  - Yes  - SysLog  - VcAN - protosocl-based  - VLAN - protosocl-based  - VLAN - protosocl-based  - VLAN - Pr-based  - VLAN - Pr	• CoS	Yes
PROFINET conformity class Product function / switch-managed Telegram length / for Ethernet / maximum Protocol / is supported • Telnet • Telnet • Telnet • HTTP • Yes • HTTPS • Yes • TFTP • Yes • BOOTP • No • DCP • LLDP • LEherNet/IP • SNMP v1 • SNMP v2 • SNMP v3 • IGMP (ancoping/querier) Identification & maintenance function • I&M1 – higher-level designation/location designation • Porduct functions / Diagnostics  Product functions • Port diagnostics • Statistics Packet Size • SysLog • Icopback diagnostics • Yes • SysLog • Icopback diagnostics • Ves • VLAN - protocol-based • VLAN - Probased • VLAN - Probased • VLAN - Probased • VLAN - Probased • VLAN - Product function / DCP  Product functions / DHCP	with IRT / PROFINET IO switch	No
Product function / switch-managed   Yes	PROFINET IO diagnosis	Yes
Telegram length / for Ethernet / maximum  Protocol / is supported  Telnet  Telnet  HTTP  HTTTP  HTTTTP  HTTTTP  HTTTTP  HTTTTP  H	PROFINET conformity class	В
Protocol / is supported  • Telnet  • HTTP  • HTTPS  • HTTPS  • FTP  • FTP  • BOOTP  • DCP  • LLDP  • EtherNet/IP  • SNMP v1  • SNMP v2  • SNMP v3  • IGMP (snooping/querier)  Identification & maintenance function  • I&MO - device-specific information  • I&MS - bigher-level designation/location designation  Product functions / Diagnostics  Product functions  • Port diagnostics  • Statistics packet type  • Error statistics  • SysLog  • Ioopback diagnostics  • Yes  • SysLog  • Ioopback diagnostics  Product functions / VLAN  Product function  • VLAN - protococl-based  • VLAN - protococl-based  • VLAN - IP-based  • VLAN - IP-based  • VLAN - IP-based  • VLAN dynamic  Product functions / DHCP	Product function / switch-managed	Yes
	Telegram length / for Ethernet / maximum	1522 byte
HITTP	Protocol / is supported	
HTTPS  TETP  TETP  FTP  BOOTP  BOOTP  COLOP  COLOP  COLOP  EtherNet/IP  SNMP v1  SNMP v2  SNMP v3  GOMP (snooping/querier)  Identification & maintenance function  Row (snooping/querier)  Identification & maintenance function  Row (snooping/querier)  Ves  Identification & maintenance function  Row (snooping/querier)  Product functions / Diagnostics  Product functions / Diagnostics  Product function  Port diagnostics  Statistics Packet Size  Statistics Packet Size  Statistics packet type  Error statistics  SysLog  loopback diagnostics  Product functions / VLAN	• Telnet	Yes
• TFTP • FTP • FTP • FTP • BOOTP • DCP • DCP • LLDP • EtherNet/IP • SNMP v1 • SNMP v2 • SNMP v3 • IGMP (snooping/querier)  Identification & maintenance function • I&M0 - device-specific information • I&M0 - device-specific information • I&M1 - higher-level designation/location designation  Product functions / Diagnostics  Product functions / Diagnostics  Product function • Port diagnostics • Statistics Packet Size • Statistics packet type • Error statistics • SysLog • loopback diagnostics  Product functions / VLAN  Product functions / VLAN  Product functions / VLAN  Product function   • VLAN - port based • VLAN - port based • VLAN - protocol-based • VLAN - IP-based • VLAN dynamic  Product functions / DHCP	• HTTP	Yes
FTTP  BOOTP  BOOTP  DCP  Yes  LLDP  EtherNet/IIP  SNMP v1  SNMP v2  SNMP v3  IGMP (snooping/querier)  Ves  Identification & maintenance function  IsM0 - device-specific information  IsM0 - device-specific information  Ves  Identification & Test of the sum of the s	• HTTPS	Yes
BOOTP	• TFTP	Yes
DCP LLDP EtherNet/IP EtherNet/IP SNMP v1 SNMP v1 SNMP v2 SNMP v3 IGMP (snooping/querier) Ves Identification & maintenance function Il&MO - device-specific information Il&MO - device-specific information Il&MO - device-specific information Ves IkMO - device-specific information Ves Statistics Packet Size Statistics Packet Size Statistics Packet Size Statistics packet type Ves Error statistics SysLog I loopback diagnostics Ves Product function VLAN - port based VLAN - protocol-based VLAN - IP-based VLAN - IP-based VLAN dynamic  Product functions / DHCP  Product functions / DHCP	• FTP	Yes
• LLDP • Ether/Net/IP • Ether/Net/IP • SNMP v1 • SNMP v2 • SNMP v2 • SNMP v3 • IGMP (snooping/querier)  Identification & maintenance function • I&MO - device-specific information • I&MO - device-specific information • I&M - higher-level designation/location designation  Product functions / Diagnostics  Product function • Port diagnostics • Statistics Packet Size • Statistics Packet Size • Statistics packet type • Error statistics • SysLog • loopback diagnostics  Product functions • VLAN - port based • VLAN - protocol-based • VLAN - IP-based • VLAN - IP-based • VLAN dynamic  Product functions / DHCP	• BOOTP	No
EtherNet/IP	• DCP	Yes
SMMP v1 SNMP v2 SNMP v3 IGMP (snooping/querier)  Identification & maintenance function I&M0 - device-specific information I&M1 - higher-level designation/location designation  Product functions / Diagnostics  Product function Port diagnostics  Yes Statistics Packet Size Statistics Packet Size Statistics packet type Firor statistics SysLog Ioopback diagnostics  Product functions / Ves	• LLDP	Yes
SNMP v2 SNMP v3 GSMP (snooping/querier)  Identification & maintenance function IskM0 - device-specific information IskM1 - higher-level designation/location designation  Product functions / Diagnostics  Product function Port diagnostics Statistics Packet Size Statistics packet type Error statistics SysLog Ioopback diagnostics SysLog Ioopback diagnostics  Product function / Yes  Product functions / Yes SysLog Ves	• EtherNet/IP	Yes
SNMP v3 IGMP (snooping/querier)  Identification & maintenance function IBM0 - device-specific information IBM1 - higher-level designation/location designation  Product functions / Diagnostics  Product function Product function Statistics Packet Size Statistics packet type Statistics packet type Firor statistics SysLog Ioopback diagnostics  Product functions / VLAN  Product functions / VLAN  Product functions / VLAN  Product functions / VLAN  Product function VLAN - protocol-based VLAN - protocol-based VLAN dynamic  Product functions / DHCP	• SNMP v1	Yes
Identification & maintenance function  Ilemtification   Yes    Il	• SNMP v2	Yes
Identification & maintenance function  • I&M0 - device-specific information Yes  • I&M1 - higher-level designation/location designation  Product functions / Diagnostics  Product function  • Port diagnostics Yes  • Statistics Packet Size Yes  • Statistics packet type Yes  • Error statistics Yes  • SysLog Yes  • loopback diagnostics Yes  Product functions / VLAN  Product functions / VLAN  Product function  • VLAN - port based Yes  • VLAN - protocol-based No  • VLAN - IP-based No  • VLAN dynamic No  Product functions / DHCP	• SNMP v3	Yes
I&M0 - device-specific information     I&M1 - higher-level designation/location designation  Product functions / Diagnostics  Product function      Port diagnostics     Yes     Statistics Packet Size     Statistics packet type     Error statistics     SysLog     loopback diagnostics  Product functions / VLAN  Product functions / VLAN  Product function      VLAN - port based     VLAN - protocol-based     VLAN - IP-based     VLAN dynamic  Product functions / DHCP	<ul><li>IGMP (snooping/querier)</li></ul>	Yes
I&M1 – higher-level designation/location designation  Product functions / Diagnostics  Product function      Port diagnostics     Statistics Packet Size     Statistics packet type     Error statistics     SysLog     Ioopback diagnostics  Product functions / VLAN  Product functions / VLAN  Product function      VLAN - port based     VLAN - protocol-based     VLAN dynamic  Product functions / DHCP  Product functions / DHCP	Identification & maintenance function	
Product functions / Diagnostics  Product function  Port diagnostics Statistics Packet Size Statistics packet type Firor statistics SysLog I loopback diagnostics  Product functions / VLAN  Product functions VLAN - port based VLAN - protocol-based VLAN - IP-based VLAN dynamic  Product functions / DHCP	<ul> <li>I&amp;M0 - device-specific information</li> </ul>	Yes
Product functions / Diagnostics  Product function  Port diagnostics Statistics Packet Size Statistics packet type Firor statistics SysLog I loopback diagnostics  Product functions / VLAN  Product functions VLAN - port based VLAN - protocol-based VLAN - IP-based VLAN dynamic  Product functions / DHCP		Yes
Product function  Port diagnostics Statistics Packet Size Statistics packet type Error statistics SysLog Ioopback diagnostics  Product functions / VLAN  Product function VLAN - port based VLAN - protocol-based VLAN - IP-based VLAN dynamic  Product functions / DHCP	designation	
<ul> <li>Port diagnostics</li> <li>Statistics Packet Size</li> <li>Statistics packet type</li> <li>Error statistics</li> <li>SysLog</li> <li>loopback diagnostics</li> </ul> Product functions / VLAN Product function <ul> <li>VLAN - port based</li> <li>VLAN - protocol-based</li> <li>VLAN - IP-based</li> <li>VLAN dynamic</li> </ul> Product functions / DHCP Product functions / DHCP	Product functions / Diagnostics	
Statistics Packet Size Statistics packet type Error statistics SysLog loopback diagnostics  Product functions / VLAN  Product function VLAN - port based VLAN - protocol-based VLAN - IP-based VLAN dynamic  Product functions / DHCP  Product functions / DHCP	Product function	
Statistics packet type Error statistics SysLog Ioopback diagnostics  Product functions / VLAN  Product function VLAN - port based VLAN - protocol-based VLAN - IP-based VLAN - IP-based VLAN dynamic  Product functions / DHCP  Product functions / DHCP	<ul> <li>Port diagnostics</li> </ul>	Yes
Error statistics     SysLog     Ioopback diagnostics  Product functions / VLAN  Product function     VLAN - port based     VLAN - protocol-based     VLAN - IP-based     VLAN dynamic  Product functions / DHCP	Statistics Packet Size	Yes
SysLog I loopback diagnostics  Product functions / VLAN  Product function  VLAN - port based VLAN - protocol-based VLAN - IP-based VLAN - IP-based VLAN dynamic  Product functions / DHCP	<ul> <li>Statistics packet type</li> </ul>	Yes
<ul> <li>◆ loopback diagnostics</li> <li>Yes</li> <li>Product functions / VLAN</li> <li>Product function         <ul> <li>◆ VLAN - port based</li> <li>◆ VLAN - protocol-based</li> <li>◆ VLAN - IP-based</li> <li>◆ VLAN dynamic</li> </ul> </li> <li>Product functions / DHCP</li> </ul>	Error statistics	Yes
Product functions / VLAN  Product function  • VLAN - port based Yes  • VLAN - protocol-based No  • VLAN - IP-based No  • VLAN dynamic No  Product functions / DHCP	<ul><li>SysLog</li></ul>	Yes
Product function  • VLAN - port based Yes  • VLAN - protocol-based No  • VLAN - IP-based No  • VLAN dynamic No  Product functions / DHCP	<ul><li>loopback diagnostics</li></ul>	Yes
<ul> <li>VLAN - port based</li> <li>VLAN - protocol-based</li> <li>VLAN - IP-based</li> <li>VLAN dynamic</li> <li>Product functions / DHCP</li> </ul>	Product functions / VLAN	
VLAN - protocol-based     VLAN - IP-based     VLAN dynamic  Product functions / DHCP  No		
VLAN - IP-based     VLAN dynamic  Product functions / DHCP  No	VLAN - port based	Yes
VLAN dynamic  Product functions / DHCP	<ul> <li>VLAN - protocol-based</li> </ul>	No
Product functions / DHCP	VLAN - IP-based	No
	● VLAN dynamic	No
Product function	Product functions / DHCP	
	Product function	

DHCP client	Yes
Product functions / redundancy	
Product function	
<ul><li>Ring redundancy</li></ul>	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	No
<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
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
Product functions / time	
Product function	
SICLOCK support	Yes
Protocol / is supported	
• NTP	Yes
• SNTP	Yes
Standards, specifications, approvals	
Standard  ● for FM	FM3611: Class 1, Divison 2, Group A, B, C, D / T4, CL.1, Zone 2, GP. IIC, T4
• for hazardous zone	EN 60079-0 : 2006, EN 60079-15: 2005, II 3 G Ex nA II T4 KEMA 07 ATEX 0145X
• for safety / from CSA and UL	UL 60950-1, CSA C22.2 No. 60950-1

• for hazardous zone / from CSA and UL

• for emitted interference

• for interference immunity

Security for industrial automation and control systems / acc. to IEC 62443-4-2:2019

ANSI / ISA 12.12.01, CSA C22.2 No. 213-M1987, CL. 1 / Div. 2 / GP. A, B, C, D T4, CL. 1 / Zone 2 / GP. IIC, T8

EN 61000-6-4 (Class A)

EN 61000-6-2

Yes

### Standards, specifications, approvals / CE

Certificate of suitability / CE marking

Yes

### Standards, specifications, approvals / other

Certificate of suitability

• C-Tick

Railway application in accordance with EN

 Railway application in accordance with EN 50124-1

KC approval

EN 61000-6-2, EN 61000-6-4

Yes

No

No

Yes

### Further information / Internet-Links

### Internet-Link

• to website: Selector SIMATIC NET

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/snst

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

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)

last modified: 05/13/2020