## 6GK5320-1BD00-2AA3

**Data sheet** 



SCALANCE X320-1FE managed IE switch, 20x 10/100 Mbit/s RJ45 ports, 1x 100 Mbit/s SC Port multimode LED-diagnostics, error-signaling contact with Select/set pushbutton, PROFINET IO Device, network management, integrated redundancy manager, Office features (RSTP, VLAN, IGMP,...) C-plug in scope of delivery

product type designation	SCALANCE X320-1FE	
transfer rate		
transfer rate	10 Mbit/s, 100 Mbit/s	
interfaces / for communication / integrated		
number of electrical connections		
<ul> <li>for network components or terminal equipment</li> </ul>	20	
number of 10/100 Mbit/s RJ45 ports / integrated		
with securing collar	20	
number of 100 Mbit/s SC ports		
<ul> <li>for multimode</li> </ul>	1	
interfaces / other		
number of electrical connections		
<ul> <li>for signaling contact</li> </ul>	1	
<ul> <li>for power supply</li> </ul>	1	
type of electrical connection		
<ul> <li>for signaling contact</li> </ul>	2-pole terminal block	
<ul> <li>for power supply</li> </ul>	4-pole terminal block	
design of the removable storage		
• C-PLUG	Yes	
signal inputs/outputs		
operating voltage / of the signaling contacts		
at DC / rated value	24 V	
operational current / of the signaling contacts		
<ul><li>at DC / maximum</li></ul>	0.1 A	
supply voltage, current consumption, power loss		
product component / connection for redundant voltage supply	Yes	
type of voltage supply / redundant power supply unit	No	
type of voltage / 1 / of the supply voltage	DC	
<ul><li>supply voltage / 1 / rated value</li></ul>	24 V	
<ul><li>power loss [W] / 1 / rated value</li></ul>	9.6 W	
<ul><li>supply voltage / 1 / rated value</li></ul>	18 32 V	
<ul><li>consumed current / 1 / maximum</li></ul>	0.4 A	
<ul> <li>type of electrical connection / 1 / for power supply</li> </ul>	4-pole terminal block	
<ul> <li>product component / 1 / fusing at power supply input</li> </ul>	Yes	
ambient conditions		
ambient temperature		

olduring storage     outing storage     outing storage     outing storage     outing transport     relative harmfoly     el at 25 °C / without condensation / during operation / maximum production class IP     design, dimensions and weights     design     outing transport     design membranes and weights     design membranes and weights     design     intervention of the condition of the co	during operation	-40 +60 °C
eduring transport elablite humidity eat 25°C / without condensation / during operation / maximum protection class IP design, dimonstors and weights design weight less than the compact of the compac		
relative humidity		
# at 25 °C / without condensation / during operation / maximum protection class IP		
design compact width 150 mm 125 mm 12	• at 25 °C / without condensation / during operation /	95 %
design width 180 mm height 125 mm depth 133 mm net weight 156 kg fastening method 136 mm 19-inch installation on a 35 mm standard mounting rail is not permitted.  • 19-inch installation No 35 mm top hat DIN rail mounting Yes evail mounting Yes over incorporate in the permitted.  • 19-inch installation No 35 mm top hat DIN rail mounting Yes over incorporate incorpo	protection class IP	IP30
design width 180 mm height 125 mm depth 133 mm net weight 156 kg fastening method 136 mm 19-inch installation on a 35 mm standard mounting rail is not permitted.  • 19-inch installation No 35 mm top hat DIN rail mounting Yes evail mounting Yes over incorporate in the permitted.  • 19-inch installation No 35 mm top hat DIN rail mounting Yes over incorporate incorpo	design, dimensions and weights	
width helight depth 125 mm detweight 1.65 kg fastering method stateming method 4.19-inch installation 4.19-inch in		compact
Delight   125 mm   123 mm   125 mm   123 mm   125 mm		·
depth   1.65 kg   1.65 k		
net weight   1.6 kg   When used in shipbuilding, installation on a 35 mm standard mounting rail is not permitted.   1.9 inch installation   1.9 inch		
Fastening method  - 19-inch installation - 35 mm top hat DiN rail mounting - 49 mail mounting - 57-300 rail mounting - 58-300 rail mounting - 59-300 rail mounting - 59-300 rail mounting - 59-300 rail mounting - 59-300 rail mounting - 50-30 rai	·	1.65 kg
rail is not permitted.  19-inch installation  35 mm top hat DIN rail mounting  wall mounting  \$7.500 rail mounting  \$7.500 rail mounting  \$7.7500 rail mounting		
• 35 mm top hat DIN rail mounting • wall mounting • \$7-300 rail mounting  product features, product functions, product components / general cascading in the case of a redundant ring / at reconfiguration time of √-0.3√-s cascading in cases of star topology  product functions / management, configuration, engineering product functions / management • CLI • Ves • Web-based management • Ves • MIB support • TRAPs via email • configuration with STEP 7 • RMON • port mirroring • res • multiport mirroring • CoS • PROFINET IO diagnosis • PROFINET Of diagnosis • PROFINET of managed  • Telnet		
wall mounting	<ul> <li>19-inch installation</li> </ul>	No
S7-300 rail mounting S7-1500 rail mounting Product features, product functions, product components / general  cascading in the case of a redundant ring / at reconfiguration time of <\(-0.3\)-s cascading in sease of star topology any (depending only on signal propagation time)  Product functions / management, configuration, ongineering  product functions / management Sease of star topology Sease Sea	<ul> <li>35 mm top hat DIN rail mounting</li> </ul>	Yes
Product features, product functions, product components / general cascading in the case of a redundant ring / at reconfiguration time of <1-0.3'-s cascading in cases of star topology  product functions / management, configuration, engineering product function  CLI  Yes  **Web-based management*  **MIS support*  **MIS support*  **TRAPs via email*  **configuration with STEP 7  **RMON*  **port mirroring*  **port mirroring*  **CoS*  **PROFINET IO diagnosis*  PROFINET conformity class  product function / switch-managed  **Telnet*  **HITTP*  **HITTP*  **HITTP*  **HITTP*  **FIF*  **FIF*  **GMRP*  **DCP*  **GMRP*  **DCP*  **SUMP V1  **SUMP V2  **SUMP V3  **SUMP V3  **SUMP V4  **SUM	<ul><li>wall mounting</li></ul>	Yes
product features, product functions, product components / general  cascading in the case of a redundant ring / at reconfiguration time of <-0.3-ws  cascading in cases of star topology  product functions / management, configuration, engineering  product function  • CLI Yes  • web-based management Yes  • Mills support Yes  • TRAPs via email Yes  • configuration with STEP 7 Yes  • multiport mirroring Yes  • multiport mirroring Yes  • multiport mirroring Yes  • PROFINET IO diagnosis Yes  PROFINET conformity class B  product function / switch-managed Yes  • HTTP Yes  • SUMP YES  •	<ul> <li>S7-300 rail mounting</li> </ul>	Yes
cascading in the case of a redundant ring / at reconfiguration time of <\-0.3\-s and (depending only on signal propagation time)  product functions / management, configuration, engineering  product function  • CLI  • web-based management  • Kills support  • TRAPs via email  • configuration with STEP 7  • RMON  • port mirroring  • multiport mirroring  • multiport mirroring  • PROFINET IO diagnosis  PROFINET conformity class  product function / switch-managed  • Telnet  • HTTP  • HTTP  • FTP  • FTP  • BOOTP  • GMRP  • GMRP  • SNMP V1  • SNMP V1  • SNMP V2  • SNMP V3  • IGMP (snooping/querier)  identifications / diagnostics  product function  • I&M O - device-specific information  • I&M O - device-specific information  • Is Mo - device-specific information designation  • Is Mo -	<ul> <li>S7-1500 rail mounting</li> </ul>	No
reconfiguration time of <\-0.3\-s cascading in cases of star topology  product functions / management, configuration, engineering  product function  • CLI  • Web-based management • MilB support • TRAPs via email • Configuration with STEP 7 • RMON • port mirroring • multiport mirroring • CoS • PROFINET IO diagnosis • PROFINET conformity class • PROFINET conformity class  product function / switch-managed  protocol / is supported • Telnet • TETP • HTTP • SOOTP	product features, product functions, product components	/ general
product function / management, configuration, engineering product function  • CLI Yes • web-based management Yes • Milb support Yes • TRAP's via email Yes • configuration with STEP 7 Yes • RMON Yes • port mirroring Yes • multiport mirroring Yes • CoS Yes • PROFINET IO diagnosis Yes PROFINET conformity class B product function / switch-managed Yes protocol / is supported • Telnet Yes • HTTP Yes • HTTP Yes • TFTP Yes • TFTP Yes • TFTP Yes • SOOTP Yes • SOMP Yes • SOMP Yes • SNMP Ye		100
Product function	cascading in cases of star topology	any (depending only on signal propagation time)
CLI  web-based management  MIB support  TRAPs via email  configuration with STEP 7  RMON  port mirroring  multiport mirroring  COS  PROFINET IO diagnosis  PROFINET conformity class  product function / switch-managed  relent  HTTP  HTTP  HTTP  HTTP  HTTP  HETP  HTTP  SOND  BOOTP  GMRP  DOP  SNMP V1  SNMP V1  SNMP V2  SNMP V2  SNMP V3  IGMP (snooping/querier)  IgMn - ligher level designation/location designation  Product function / lagnostics  PROFINET conformity class  B  PROFINET conformity class  B  PROFINET Conformity class  B  PROFINET Conformity class  B  PROFINET (conformity class)  B  PROFINET (conformity class)  B  PROFINET (conformity class)  B  PROFINET (conformity class)  PROFINET (conformity	product functions / management, configuration, engineeri	ng
web-based management     MIB support     TRAPs via email     configuration with STEP 7     RMON     port mirroring     pot mirroring     res     multiport mirroring     Yes     multiport mirroring     Yes     res     PROFINET IO diagnosis     PROFINET IO diagnosis     PROFINET conformity class     PROFINET conformity class     Product function / switch-managed     res     re	product function	
MIB support TRAPs via email Configuration with STEP 7 RMON Pes port mirroring Pes multiport mirroring Yes PROFINET IO diagnosis PROFINET conformity class PROFINET conformity class Product function / switch-managed Yes  PROFINET conformity class B  Product function / switch-managed Yes  PROFINET Not switch-managed Yes  PROFINET Not switch-managed Yes  Product function / Yes  SIMP Y SIMP SIMP SIMP Y SIMP SIMP SIMP SIMP SIMP SIMP SIMP SIMP	• CLI	Yes
TRAPs via email configuration with STEP 7 RMON RMON port mirroring Yes multiport mirroring Yes PROFINET IO diagnosis PROFINET conformity class product function 8 witch-managed Telnet FTP STEP STEP STEP STEP STEP STEP STEP ST	<ul> <li>web-based management</li> </ul>	Yes
configuration with STEP 7     RMON     PROFINET in diagnosis     PROFINET IO diagnosis     PROFINET conformity class     PROFINET conformity class conformity class conformity class	<ul> <li>MIB support</li> </ul>	Yes
RMÓN  port mirroring  multiport mirroring  CoS  PROFINET IO diagnosis  PROFINET conformity class  product function / switch-managed  Telnet	<ul> <li>TRAPs via email</li> </ul>	Yes
port mirroring     multiport mirroring     CoS     PROFINET IO diagnosis  PROFINET conformity class  product function / switch-managed  Yes  protocol / is supported  Telnet  Tel	<ul><li>configuration with STEP 7</li></ul>	Yes
multiport mirroring     CoS     Yes     PROFINET IO diagnosis     Yes     PROFINET conformity class     B     product function / switch-managed     Yes     protocol / is supported     Telnet     Yes     HTTP     Yes     HTTPS     Yes     FTP     Yes     FTP     SOOTP     SOMRP     GMRP     SOMP     SNMP v1     SNMP v2     SNMP v3     IGMP (snooping/querier)     identification & maintenance function     I &M0 - device-specific information     Yes     product functions / diagnostics     product functions / diagnostics     product functions / diagnostics	• RMON	Yes
Ocos     PROFINET IO diagnosis     PROFINET conformity class     PROFINET conformity class     product function / switch-managed     Protocol / is supported     Telnet     Telnet     Telnet     HTTP     Yes     HTTP     Yes     TFTP     Yes     FTP     Yes     BOOTP     GMRP     Yes     DCP     LLDP     SNMP v1     SNMP v2     SNMP v3     IGMN (snooping/querier)     identification & maintenance function     I&M0 - device-specific information     I&M1 - higher level designation/location designation  product functions / diagnostics  product functions  Pess  B  B  Proview S  Pes  Pes  Pes  Pes  Pes  Pes  Pes  Pe	<ul> <li>port mirroring</li> </ul>	Yes
● PROFINET IO diagnosis         Yes           PROFINET conformity class         B           product function / switch-managed         Yes           protocol / is supported         Yes           • Telnet         Yes           • HTTP         Yes           • HTTPS         Yes           • FTP         Yes           • BOOTP         Yes           • BOOTP         Yes           • DCP         Yes           • LLDP         Yes           • SNMP v1         Yes           • SNMP v2         Yes           • SNMP v3         Yes           • IGMP (snooping/querier)         Yes           identification & maintenance function         Yes           • I&M0 - device-specific information         Yes           • I&M1 - higher level designation/location designation         Yes           product functions / diagnostics         Yes	<ul> <li>multiport mirroring</li> </ul>	Yes
PROFINET conformity class  product function / switch-managed  Protocol / is supported  Telnet		
product function / switch-managed protocol / is supported  • Telnet • Telnet • HTTP • Yes • HTTPS • Yes • TFTP • Yes • FTP • SOOTP • BOOTP • GMRP • DCP • LLDP • 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	PROFINET IO diagnosis	Yes
protocol / is supported  • Telnet  • Telnet  • HTTP  • HTTPS  • HTTPS  • HTTPS  • FTP  • FTP  • BOOTP  • GMRP  • DCP  • LLDP  • 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	<u> </u>	В
<ul> <li>Telnet</li> <li>HTTP</li> <li>HTTPS</li> <li>HTTPS</li> <li>Yes</li> <li>TFTP</li> <li>Yes</li> <li>BOOTP</li> <li>GMRP</li> <li>DCP</li> <li>LLDP</li> <li>SNMP v1</li> <li>SNMP v2</li> <li>SNMP v3</li> <li>IGMP (snooping/querier)</li> <li>identification &amp; maintenance function</li> <li>18M0 - device-specific information</li> <li>18M1 - higher level designation/location designation</li> <li>product functions / diagnostics</li> </ul>		Yes
<ul> <li>HTTP</li> <li>HTTPS</li> <li>Yes</li> <li>TFTP</li> <li>FTP</li> <li>BOOTP</li> <li>BOOTP</li> <li>GMRP</li> <li>DCP</li> <li>LLDP</li> <li>SNMP v1</li> <li>SNMP v2</li> <li>SNMP v3</li> <li>IGMP (snooping/querier)</li> <li>identification &amp; maintenance function</li> <li>I&amp;MO - device-specific information</li> <li>I&amp;M1 - higher level designation/location designation</li> </ul> Product functions / diagnostics product function		
<ul> <li>HTTPS</li> <li>TFTP</li> <li>FTP</li> <li>BOOTP</li> <li>GMRP</li> <li>DCP</li> <li>LLDP</li> <li>SNMP v1</li> <li>SNMP v2</li> <li>SNMP v3</li> <li>IGMP (snooping/querier)</li> <li>identification &amp; maintenance function</li> <li>I&amp;M0 - device-specific information</li> <li>I&amp;M1 - higher level designation/location designation</li> <li>product functions / diagnostics</li> </ul>		Yes
<ul> <li>TFTP</li> <li>FTP</li> <li>BOOTP</li> <li>BOOTP</li> <li>GMRP</li> <li>DCP</li> <li>LLDP</li> <li>SNMP v1</li> <li>SNMP v2</li> <li>SNMP v3</li> <li>IGMP (snooping/querier)</li> <li>identification &amp; maintenance function</li> <li>I&amp;M0 - device-specific information</li> <li>I&amp;M1 - higher level designation/location designation</li> <li>Product functions / diagnostics</li> </ul>		
FTP BOOTP Yes GMRP Yes DCP LLDP Yes SNMP 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  Yes  Yes Yes Yes Yes Yes Yes Yes Yes Y		
BOOTP GMRP Yes DCP Yes LLDP Yes SNMP 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  Yes  Product function		
GMRP DCP Yes LLDP SNMP v1 SNMP v2 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  Yes  product function  Yes  Product function  Yes		
DCP     LLDP     Yes     SNMP 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  Yes  product functions		
LLDP     SNMP 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  Yes  product function  Yes		
SNMP v1 SNMP v2 SNMP v3 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  Yes  product function  Yes		
SNMP v2 SNMP v3 SNMP v3 Figure 1 SNMP v3 Figure 2 SNMP v3 Figure 3 Figure 2 SNMP v3 Figure 3 Figure 3 Figure 4		
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  Yes  product function		
IGMP (snooping/querier)  identification & maintenance function  • I&M0 - device-specific information  • I&M1 - higher level designation/location designation  product functions / diagnostics  product function  Yes  product function		
identification & maintenance function  • I&M0 - device-specific information Yes  • I&M1 - higher level designation/location designation Yes  product functions / diagnostics  product function		
I&M0 - device-specific information     I&M1 - higher level designation/location designation  Product functions / diagnostics  product function  Product function  Product function		Yes
I&M1 – higher level designation/location designation  Yes  product functions / diagnostics  product function		
product functions / diagnostics product function		
product function		Yes
• port diagnostics Yes		
	<ul> <li>port diagnostics</li> </ul>	Yes

1.5 E 1.10	V
statistics Packet Size	Yes
statistics packet type	Yes
• error statistics	Yes
• SysLog	Yes
product functions / VLAN	
product function	V
VLAN - port based     VLAN - protocol based	Yes
VLAN - protocol-based     VLAN - ID based	No
VLAN - IP-based  A VLAN dynamic	No Yes
VLAN dynamic     number of VLANs / maximum	255
	255
number of VLANs - dynamic / maximum protocol / is supported / GVRP	Yes
product functions / DHCP	165
product function	
DHCP client	Yes
DHCP Option 82	Yes
DHCP Option 66	Yes
DHCP Option 67	Yes
product functions / redundancy	
product function	
• ring redundancy	Yes
High Speed Redundancy Protocol (HRP)	Yes
high speed redundancy protocol (HRP) with	Yes
redundancy manager  • high speed redundancy protocol (HRP) with standby	Yes
redundancy	Yes
protocol / is supported / Media Redundancy Protocol (MRP)	Tes
product function	V
<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	
• STP/RSTP	Yes
• STP	Yes
• RSTP	Yes
MSTP  POTD bis not used a surge of	Yes
RSTP big network support	Yes
LACP product functions / security	Yes
product function  • ACL - MAC-based	Yes
ACL - IVIAC-based     ACL - port/MAC-based	Yes
• IEEE 802.1x (radius)	Yes
broadcast/multicast/unicast limiter	Yes
broadcast blocking	Yes
protocol / is supported	
• SSH	Yes
product functions / time	
product function	
SICLOCK support	Yes
••	

protocol / is supported	
• NTP	Yes
• SNTP	Yes
IEEE 1588 profile default	No
standards, specifications, approvals	
standard	
• for FM	FM3611: Class 1, Divison 2, Group A, B, C, D / T4, Class 1, Zone 2, Group IIC, T4
<ul> <li>for safety / from CSA and UL</li> </ul>	UL 60950-1, CSA C22.2 No. 60950-1
<ul> <li>for emitted interference</li> </ul>	EN 61000-6-4:2007 (Class A)
for interference immunity	EN 61000-6-2:2005
MTBF	25 y
standards, specifications, approvals / CE	
certificate of suitability / CE marking	Yes
standards, specifications, approvals / hazardous environn	nents
standard / for hazardous zone	EN 60079-0 : 2006, EN 60079-15: 2005, II 3 G Ex nA II T4 KEMA 07 ATEX 0145X
from CSA and UL	UL 1604 and UL 2279-15 (Hazardous Location), CSA C22.2 No. 213-M1987, Class 1 / Division 2 / Group A, B, C, D / T4, Class 1 / Zone 2 / Group IIC / T4
certificate of suitability	
<ul> <li>CCC / for hazardous zone according to GB standard</li> </ul>	Yes
standards, specifications, approvals / other	
certificate of suitability	EN 61000-6-2:2005, EN 61000-6-4:2007
• C-Tick	Yes
<ul> <li>KC approval</li> </ul>	Yes
<ul> <li>railway application in accordance with EN 50155</li> </ul>	No
standards, specifications, approvals / marine classificatio	n
Marine classification association	
<ul> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> </ul>	Yes
<ul> <li>French marine classification society (BV)</li> </ul>	Yes
<ul> <li>Det Norske Veritas (DNV)</li> </ul>	No
Germanische Lloyd (GL)	No
• DNV GL	Yes
<ul> <li>Lloyds Register of Shipping (LRS)</li> </ul>	Yes
<ul><li>Nippon Kaiji Kyokai (NK)</li></ul>	Yes
<ul> <li>Polski Rejestr Statkow (PRS)</li> </ul>	No
Royal Institution of Naval Architects (RINA)	Yes
further information / internet-Links	
Internet-Link	
<ul><li>to web page: selection aid TIA Selection Tool</li></ul>	http://www.siemens.com/tia-selection-tool
to website: Industrial communication	http://www.siemens.com/simatic-net
• to website: Industry Mall	https://mall.industry.siemens.com
to website: Information and Download Center	http://www.siemens.com/industry/infocenter
to website: Image database	http://automation.siemens.com/bilddb
to website: CAx-Download-Manager     to website: Industry Online Symport	http://www.siemens.com/cax
to website: Industry Online Support	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. Third-party 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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