6GK5216-0HA00-2ES6

Data sheet



SCALANCE XP216EEC, managed IE switch, with railway approval IEC 62443-4-2 certified; (EN 50155, EN45545); 12x 10/100 Mbit/s M12 ports, 4x 10/100/1000 Mbit/s M12 ports IP65, LED diagnostics, error signaling contact, redundant power supply, PROFINET IO device, network management, can be operated in redundant ring, incl. dust caps, including electronic manual on CD-ROM, C-PLUG optional.

product type designation		
product brand name	SCALANCE	
product type designation	XP216EEC	
transfer rate		
transfer rate	10 Mbit/s, 100 Mbit/s, 1000 Mbit/s	
interfaces / for communication / integrated		
number of electrical connections		
 for network components or terminal equipment 	16; M12	
number of 10/100 Mbit/s M12-ports (D-coded)	12	
number of 10/100/1000 Mbit/s M12-ports (X-coded)	4	
interfaces / other		
number of electrical connections		
for operator console	1	
• for signaling contact	1	
• for power supply	2	
type of electrical connection		
 for operator console 	5 pin M12 socket (A coded)	
 for signaling contact 	5-pin M12 connector (B-coded)	
for power supply	4-pin M12 plug (A-coded)	
design of the removable storage		
• C-PLUG	Yes	
product function / device replacement with replacement of the storage medium	Yes	
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		
product component / connection for redundant voltage supply	Yes	
type of voltage / 1 / of the supply voltage	DC	
supply voltage / 1 / rated value	24 V; XP-200EEC with EN 50155 supports the voltage range 16.8 30 V DC	
power loss [W] / 1 / rated value	8 W	
• consumed current / 1 / at rated supply voltage / maximum	0.4 A	
supply voltage / 1 / rated value	19.2 28.8 V	
consumed current / 1 / maximum	0.335 A	
 type of electrical connection / 1 / for power supply 	4-pin M12 plug (A-coded)	
 product component / 1 / fusing at power supply input 	Yes	
fuse protection type / 1 / at input for supply voltage	5 A / 60 V	
ambient conditions		
ambient temperature		

• during operation • during storage • during transport • during transport • during transport • note • note relative humidity • at 25 °C / without condensation / during operation / maximum protection class IP design, dimensions and weights design, dimensions and weights design width
• during transport • note • note FeEC variants with EN 50155 support for 10 minutes: -40 °C +85 °C relative humidity • at 25 °C / without condensation / during operation / maximum protection class IP design, dimensions and weights design design design design design vidth 280 mm height depth 190 mm depth 200 mm depth 190 mm net weight 2.5 kg product feature / conformal coating material / of the enclosure fastening method • wall 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 function • QoS according to DSCP product feature • Cut Through switching method No
● note EEC variants with EN 50155 support for 10 minutes: -40 °C +85 °C relative humidity ● at 25 °C / without condensation / during operation / maximum protection class IP design Compact width 280 mm height 200 mm depth 49 mm net weight 2.5 kg product feature / conformal coating Yes material / of the enclosure Aluminum fastening method ET200pro module carrier ● wall mounting Yes product features, product functions, product components / general cascading in the case of a redundant ring / at reconfiguration time of <\~0.3\~s cascading to DSCP Yes product feature ● QoS according to DSCP Yes product feature ● Cut Through switching method No
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design compact width 280 mm height 200 mm depth 49 mm net weight 2.5 kg product feature / conformal coating Yes material / of the enclosure Aluminum fastening method ET200pro module carrier • wall mounting Yes 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 any (depending only on signal propagation time) product feature • QoS according to DSCP Yes product feature • Cut Through switching method No
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height 200 mm depth 49 mm net weight 2.5 kg product feature / conformal coating Yes material / of the enclosure Aluminum fastening method ET200pro module carrier • wall mounting Yes 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 any (depending only on signal propagation time) product function • QoS according to DSCP Yes product feature • Cut Through switching method No
depth net weight net weight 2.5 kg product feature / conformal coating Yes material / of the enclosure fastening method • wall 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 function • QoS according to DSCP Product feature • Cut Through switching method Aluminum ET200pro module carrier Yes 50 any (depending only on signal propagation time)
net weight product feature / conformal coating Yes material / of the enclosure Aluminum fastening method • wall 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 function • QoS according to DSCP product feature • Cut Through switching method Yes Aluminum ET200pro module carrier Yes 50 any (depending only on signal propagation time) Yes Yes
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■ wall mounting Yes 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 any (depending only on signal propagation time) product function ■ QoS according to DSCP Product feature ● Cut Through switching method No
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 any (depending only on signal propagation time) product function • QoS according to DSCP Yes product feature • Cut Through switching method No
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time of <\-0.3\~s cascading in cases of star topology product function • QoS according to DSCP product feature • Cut Through switching method any (depending only on signal propagation time) Yes No
product function • QoS according to DSCP Yes product feature • Cut Through switching method No
QoS according to DSCP product feature Cut Through switching method No
product feature • Cut Through switching method No
Cut Through switching method No
Store & Forward switching method Yes
product functions / management, configuration, engineering
product function
• 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
with IRT / PROFINET IO switch No
PROFINET IO diagnosis Yes
• switch-managed Yes
PROFINET conformity class B
network load class / according to PROFINET 2
telegram length / for Ethernet / maximum 1518 byte
protocol / is supported
• Telnet Yes
• HTTP Yes
• HTTPS Yes
• TFTP Yes
• SFTP 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

• I&M0 - device-specific information	Yes
I&M1 - higher level designation/location designation	Yes
product functions / diagnostics	
product function	
port diagnostics	Yes
statistics Packet Size	Yes
statistics packet type	Yes
error statistics	Yes
SysLog	Yes
product functions / VLAN	
product function	
 VLAN - port based 	Yes
 VLAN - protocol-based 	No
VLAN - IP-based	No
number of VLANs / maximum	257
number of VLANs - dynamic / maximum	257
number of VLANs / at ring redundancy (HRP; MRP; standby link)	257
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	
protocol / is supported / Media Redundancy Protocol (MRP)	Yes
product function ● media redundancy protocol (MRP) with redundancy	Yes
manager	165
Media Redundancy Protocol Interconnection (MRP-I)	Yes
 of the PROFINET IO device / is supported / H-Sync forwarding 	Yes
 of the PROFINET IO device / is supported / PROFINET system redundancy 	Yes
ring redundancy	Yes
 high speed redundancy protocol (HRP) with redundancy manager 	Yes
 high speed redundancy protocol (HRP) with standby redundancy 	Yes
redundancy procedure STP	Yes
redundancy procedure RSTP	Yes
redundancy procedure RSTP+ redundancy procedure MOTP	Yes
redundancy procedure MSTP Parallal Redundancy Protect (PRR)/Redundant Nativaria	Yes
 Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA) 	No
passive listening	Yes
system modification during operation	
product function / configuration in RUN via CiR/H-CiR	Yes
product functions / security	
product function	
• IEEE 802.1x (radius)	Yes
RADIUS client	Yes
broadcast/multicast/unicast limiter	Yes
broadcast blocking protocol / is supported.	Yes
protocol / is supported • SSH	Voc
• SSL	Yes Yes
product functions / time	160
product function	
SICLOCK support	Yes
NTP-client	Yes

SNTP client	Yes
	res
protocol / is supported • NTP	Voc
• SNTP	Yes Yes
standards, specifications, approvals	Tes
certificate of suitability	Voc
CE marking KC approval.	Yes
KC approval Pagulatan Compliance Mark (BCM)	Yes Yes
Regulatory Compliance Mark (RCM) standard	165
for EMC interference emission	EN 61000-6-4 (Class A)
for immunity to EMC	EN 61000-6-2
for safety / from CSA and UL	UL 60950-1 E115352, CSA C22.2 No. 60950-1
standards, specifications, approvals / hazardous environments	0E 00000 1 E110002, 00/N 022.2 No. 00000 1
certificate of suitability	
• ATEX	Yes
• UKEX	Yes
• IECEX	Yes
CCC / for hazardous zone according to GB standard	Yes
FM registration	Yes
standards, specifications, approvals / other	
certificate of suitability	
railway application in accordance with EN 50155	Yes
• railway application in accordance with EN 50124-1	Yes
fire protection in accordance with EN 45545-2	Yes
RoHS conformity	Yes
resistance to air pollution / conformity according to ANSI/ISA-	Yes
71.04	
IT security for industrial automation systems / according to IEC 62443-4-2:2019	Yes
standards, specifications, approvals / marine classification	
Marine classification association	
French marine classification society (BV)	Yes
Polski Rejestr Statkow (PRS)	Yes
Royal Institution of Naval Architects (RINA)	Yes
standards, specifications, approvals / Environmental Product D	
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
• total	283.14 kg
during manufacturing	61.47 kg
during operation	220.84 kg
after end of life	0.27 kg
product functions / general	
MTBF	39 a
reference temperature / for MTBF determination	40 °C
reference code	
according to IEC 81346-2	KF
• according to IEC 81346-2:2019	KFE
Warranty period	5 a
further information / internet links	
internet link	
• to website: Selection guide for cables and connectors	https://support.industry.siemens.com/cs/ww/en/view/109766358
 to web page: selection aid TIA Selection Tool 	https://www.siemens.com/tstcloud
• to website: Industrial communication	https://www.siemens.com/simatic-net
	https://sieportal.siemens.com/
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General Product Approval

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For use in hazardous locations

Declaration of Conformity





<u>KC</u>



IECEx



For use in hazardous locations

Test Certificates

Marine / Shipping

<u>FM</u>

CCC-Ex

Type Test Certificates/Test Report

inspection certificate





Marine / Shipping





NK / Nippon Kaiji Ky-<u>okai</u>





Confirmation

Railway

Environment

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Confirmation



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