

Technical specifications

Article number	6GK5208-0BA00-2AC2	6GK5216-0BA00-2AC2	6GK5224-0BA00-2AC2	6GK5208-0GA00-2AC2	6GK5208-0GA00-2TC2
product type designation					
product brand name	SCALANCE	SCALANCE	SCALANCE	SCALANCE	SCALANCE
product type designation	XC208	XC216	XC224	XC208G	XC208G (E/IP def.)
transfer rate					
transfer rate	10 Mbit/s, 100 Mbit/s	10 Mbit/s, 100 Mbit/s	10 Mbit/s, 100 Mbit/s	10 Mbit/s, 100 Mbit/s, 1 000 Mbit/s	10 Mbit/s, 100 Mbit/s, 1 000 Mbit/s
interfaces for communication integrated					
number of electrical connections					
<ul style="list-style-type: none"> for network components or terminal equipment 	8; RJ45	16; RJ45	24; RJ45	8; RJ45	8; RJ45
number of 10/100 Mbit/s RJ45 ports					
<ul style="list-style-type: none"> with securing collar 		8	16	24	
number of 10/100/1000 Mbit/s RJ45 ports					
<ul style="list-style-type: none"> with securing collar 				8	8
interfaces other					
number of electrical connections					
<ul style="list-style-type: none"> for operator console 		1	1	1	1
<ul style="list-style-type: none"> for signaling contact 		1	1	1	1
<ul style="list-style-type: none"> for power supply 		1	1	1	1
type of electrical connection					
<ul style="list-style-type: none"> for operator console 	RJ11	RJ11	RJ11	RJ11	RJ11
<ul style="list-style-type: none"> for signaling contact 	2-pole terminal block	2-pole terminal block	2-pole terminal block	2-pole terminal block	2-pole terminal block
<ul style="list-style-type: none"> for power supply 	4-pole terminal block	4-pole terminal block	4-pole terminal block	4-pole terminal block	4-pole terminal block
design of the removable storage					
<ul style="list-style-type: none"> C-PLUG 	Yes	Yes	Yes	Yes	Yes
operating voltage of the signaling contacts					
<ul style="list-style-type: none"> at DC rated value 	24 V	24 V	24 V	24 V	24 V
operational current of the signaling contacts					
<ul style="list-style-type: none"> at DC maximum 	0.1 A	0.1 A	0.1 A	0.1 A	0.1 A
supply voltage, current consumption, power loss					

product component connection for redundant voltage supply	Yes	Yes	Yes	Yes	Yes
type of voltage 1 of the supply voltage	DC	DC	DC	DC	DC
• supply voltage 1 rated value	24 V	24 V	24 V	24 V	24 V
• power loss [W] 1 rated value	4.2 W	6.6 W	9 W	4.3 W	4.3 W
• consumed current 1 at rated supply voltage maximum	0.175 A	0.275 A	0.375 A	0.26 A	0.26 A
• supply voltage 1 rated value	9.6 ... 31.2 V	9.6 ... 31.2 V	9.6 ... 31.2 V	9.6 ... 31.2 V	9.6 ... 31.2 V
• consumed current 1 maximum	0.35 A	0.55 A	0.75 A	0.36 A	0.36 A
• type of electrical connection 1 for power supply	4-pole terminal block	4-pole terminal block	4-pole terminal block	4-pole terminal block	4-pole terminal block
• product component 1 fusing at power supply input	Yes	Yes	Yes	Yes	Yes
• fuse protection type 1 at input for supply voltage	2.5 A / 125 V	2.5 A / 125 V	2.5 A / 125 V	2.5 A / 125 V	2.5 A / 125 V
ambient conditions					
ambient temperature					
• during operation	-40 ... +70 °C	-40 ... +70 °C	-40 ... +70 °C	-40 ... +70 °C	-40 ... +70 °C
• during storage	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C
• during transport	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C
relative humidity					
• at 25 °C without condensation during operation maximum	95 %	95 %	95 %	95 %	95 %
protection class IP	IP20	IP20	IP20	IP20	IP20
design, dimensions and weights					
design	compact	compact	compact	compact	compact
width	60 mm	120 mm	120 mm	60 mm	60 mm
height	147 mm	147 mm	147 mm	147 mm	147 mm
depth	125 mm	125 mm	125 mm	125 mm	125 mm
net weight	0.52 kg	0.8 kg	0.88 kg	0.52 kg	0.52 kg
material of the enclosure	Polycarbonate (PC-GF10) / pressure die cast aluminum	Polycarbonate (PC-GF10) / pressure die cast aluminum	Polycarbonate (PC-GF10) / pressure die cast aluminum	Polycarbonate (PC-GF10) / pressure die cast aluminum	Polycarbonate (PC-GF10) / pressure die cast aluminum
fastening method					
• 35 mm DIN-rail mounting	Yes	Yes	Yes	Yes	Yes
• wall mounting	Yes	Yes	Yes	Yes	Yes
• S7-300 rail mounting	Yes	Yes	Yes	Yes	Yes
• S7-1500 rail mounting	Yes	Yes	Yes	Yes	Yes

product features, product functions, product components general					
cascading in the case of a redundant ring at reconfiguration time of $\sim 0.3\text{ s}$		50	50	50	50
cascading in cases of star topology	any (depending only on signal propagation time)	any (depending only on signal propagation time)	any (depending only on signal propagation time)	any (depending only on signal propagation time)	any (depending only on signal propagation time)
product function • QoS according to DSCP	Yes	Yes	Yes	Yes	Yes
product feature • Cut Through switching method	No	No	No	No	No
• Store & Forward switching method	Yes	Yes	Yes	Yes	Yes
product functions management, configuration, engineering					
product function					
• CLI	Yes	Yes	Yes	Yes	Yes
• web-based management	Yes	Yes	Yes	Yes	Yes
• MIB support	Yes	Yes	Yes	Yes	Yes
• TRAPs via email	Yes	Yes	Yes	Yes	Yes
• configuration with STEP 7	Yes	Yes	Yes	Yes	Yes
• RMON	Yes	Yes	Yes	Yes	Yes
• SMTP server	No	No	No	No	No
• port mirroring	Yes	Yes	Yes	Yes	Yes
• multiport mirroring	Yes	Yes	Yes	Yes	Yes
• CoS	Yes	Yes	Yes	Yes	Yes
• PROFINET IO diagnosis	Yes	Yes	Yes	Yes	Yes
• switch-managed	Yes	Yes	Yes	Yes	Yes
PROFINET conformity class	B	B	B	B	B
network load class according to PROFINET				III	III
telegram length for Ethernet maximum	1 632 byte	1 632 byte	1 632 byte	10 240 byte	10 240 byte
protocol is supported					
• Telnet	Yes	Yes	Yes	Yes	Yes
• HTTP	Yes	Yes	Yes	Yes	Yes
• HTTPS	Yes	Yes	Yes	Yes	Yes
• TFTP	Yes	Yes	Yes	Yes	Yes
• SFTP	Yes	Yes	Yes	Yes	Yes

• STP	Yes	Yes	Yes	Yes	Yes
• BOOTP	No	No	No	No	No
• GMRP	Yes	Yes	Yes	Yes	Yes
• DCP	Yes	Yes	Yes	Yes	Yes
• LLDP	Yes	Yes	Yes	Yes	Yes
• EtherNet/IP	Yes	Yes	Yes	Yes	Yes
• SNMP v1	Yes	Yes	Yes	Yes	Yes
• SNMP v2	Yes	Yes	Yes	Yes	Yes
• SNMP v3	Yes	Yes	Yes	Yes	Yes
• IGMP (snooping/querier)	Yes	Yes	Yes	Yes	Yes
identification & maintenance function					
• I&M0 - device-specific information	Yes	Yes	Yes	Yes	Yes
• I&M1 - higher level designation/location designation	Yes	Yes	Yes	Yes	Yes
product functions diagnostics					
product function					
• port diagnostics	Yes	Yes	Yes	Yes	Yes
• statistics Packet Size	Yes	Yes	Yes	Yes	Yes
• statistics packet type	Yes	Yes	Yes	Yes	Yes
• error statistics	Yes	Yes	Yes	Yes	Yes
• SysLog	Yes	Yes	Yes	Yes	Yes
product functions VLAN					
product function					
• VLAN - port based	Yes	Yes	Yes	Yes	Yes
• VLAN - protocol-based	No	No	No	No	No
• VLAN - IP-based	No	No	No	No	No
number of VLANs maximum		257	257	257	257
number of VLANs - dynamic maximum		257	257	257	257
number of VLANs at ring redundancy (HRP; MRP; standby link)		257	257	257	257
product functions DHCP					
product function					
• DHCP server	Yes	Yes	Yes	Yes	Yes
• DHCP client	Yes	Yes	Yes	Yes	Yes
• DHCP Option 82	Yes	Yes	Yes	Yes	Yes
• DHCP Option 66	Yes	Yes	Yes	Yes	Yes
• DHCP Option 67	Yes	Yes	Yes	Yes	Yes

product functions redundancy					
protocol is supported Media Redundancy Protocol (MRP)	Yes	Yes	Yes	Yes	Yes
product function					
• media redundancy protocol (MRP) with redundancy manager	Yes	Yes	Yes	Yes	Yes
• Media Redundancy Protocol Interconnection (MRP-I)	Yes	Yes	Yes	Yes	Yes
• of the PROFINET IO device is supported H-Sync forwarding	Yes	Yes	Yes	Yes	Yes
• of the PROFINET IO device is supported PROFINET system redundancy	Yes	Yes	Yes	Yes	Yes
• ring redundancy	Yes	Yes	Yes	Yes	Yes
• high speed redundancy protocol (HRP) with redundancy manager	Yes	Yes	Yes	Yes	Yes
• high speed redundancy protocol (HRP) with standby redundancy	Yes	Yes	Yes	Yes	Yes
• redundancy procedure STP	Yes	Yes	Yes	Yes	Yes
• redundancy procedure RSTP	Yes	Yes	Yes	Yes	Yes
• redundancy procedure RSTP+	Yes	Yes	Yes	Yes	Yes
• redundancy procedure MSTP	Yes	Yes	Yes	Yes	Yes
• Parallel Redundancy Protocol (PRP)/operation in the PRP-network	Yes	Yes	Yes	Yes	Yes
• Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA)	No	No	No	No	No
• passive listening	Yes	Yes	Yes	Yes	Yes
protocol is supported					
• LACP	Yes	Yes	Yes	Yes	Yes
system modification during operation					
product function configuration in RUN via CiR/H-CiR	Yes	Yes	Yes	Yes	Yes
product functions security					
product function					

• IEEE 802.1x (radius)	Yes	Yes	Yes	Yes	Yes
• RADIUS client	Yes	Yes	Yes	Yes	Yes
• broadcast/multicast /unicast limiter	Yes	Yes	Yes	Yes	Yes
• broadcast blocking	Yes	Yes	Yes	Yes	Yes
protocol is supported					
• SSH	Yes	Yes	Yes	Yes	Yes
• SSL	Yes	Yes	Yes	Yes	Yes
product functions time					
product function					
• SICLOCK support	Yes	Yes	Yes	Yes	Yes
• NTP-client	Yes	Yes	Yes	Yes	Yes
• SNTP client	Yes	Yes	Yes	Yes	Yes
protocol is supported					
• NTP	Yes	Yes	Yes	Yes	Yes
• SNTP	Yes	Yes	Yes	Yes	Yes
• IEEE 1588 profile default				Yes	Yes
standards, specifications, approvals					
certificate of suitability					
• CE marking	Yes	Yes	Yes	Yes	Yes
• Regulatory Compliance Mark (RCM)	Yes	Yes	Yes	Yes	Yes
product conformity according to EMC-guideline standard	2014/30/EU	2014/30/EU	2014/30/EU	2014/30/EU	2014/30/EU
• for EMC interference emission	EN 61000-6-4, EN 50121-4	EN 61000-6-4, EN 50121-4	EN 61000-6-4, EN 50121-4	EN 61000-6-4, EN 50121-4	EN 61000-6-4, EN 50121-4
• for immunity to EMC	EN 61000-6-2, EN 50121-4	EN 61000-6-2, EN 50121-4	EN 61000-6-2, EN 50121-4	EN 61000-6-2, EN 50121-4	EN 61000-6-2, EN 50121-4
• for safety from CSA and UL	UL 60950-1 E115352	UL 60950-1 E115352	UL 60950-1 E115352	UL 60950-1 E115352, UL-61010-2 E85972	UL 60950-1 E115352, UL-61010-2 E85972
standards, specifications, approvals hazardous environments					
certificate of suitability					
• ATEX	Yes	Yes	Yes	Yes	Yes
• UKEX	Yes	Yes	Yes	Yes	Yes
• IECEx	Yes	Yes	Yes	Yes	Yes
• ULhazloc approval	Yes	Yes	Yes	Yes	Yes

<ul style="list-style-type: none"> • CCC for hazardous zone according to GB standard 	Yes	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • FM registration 	Yes	Yes	Yes	Yes	Yes
standards, specifications, approvals other					
certificate of suitability					
<ul style="list-style-type: none"> • railway application in accordance with EN 50121-4 	Yes	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • RoHS conformity 	Yes	Yes	Yes	Yes	Yes
resistance to air pollution conformity according to ANSI/ISA-71.04		Yes; G3	Yes; G3		
IT security for industrial automation systems according to IEC 62443-4-2:2019	Yes	Yes	Yes	Yes	Yes
standards, specifications, approvals marine classification					
Marine classification association					
<ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) 	No	No	No	Yes	Yes
<ul style="list-style-type: none"> • French marine classification society (BV) 	No	No	No	Yes	Yes
<ul style="list-style-type: none"> • Chinese Classification Society (CCS) 	No	No	No	Yes	Yes
<ul style="list-style-type: none"> • Det Norske Veritas (DNV) 	Yes	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • Korean Register of Shipping (KRS) 	No	No	No	Yes	Yes
<ul style="list-style-type: none"> • Lloyds Register of Shipping (LRS) 	No	No	No	Yes	Yes
<ul style="list-style-type: none"> • Nippon Kaiji Kyokai (NK) 	Yes	No	No	Yes	Yes
<ul style="list-style-type: none"> • Polski Rejestr Statkow (PRS) 	No	No	No	Yes	Yes
<ul style="list-style-type: none"> • Royal Institution of Naval Architects (RINA) 	Yes	Yes	Yes	Yes	Yes
standards, specifications, approvals Environmental Product Declaration					
Environmental Product Declaration	Yes	Yes	Yes	Yes	Yes
global warming potential [CO2 eq]					
<ul style="list-style-type: none"> • total 	135.7 kg	441.1 kg	441.1 kg	135.7 kg	135.7 kg
<ul style="list-style-type: none"> • during manufacturing 	26.3 kg	47.67 kg	47.67 kg	26.3 kg	26.3 kg
<ul style="list-style-type: none"> • during operation 	109 kg	392.82 kg	392.82 kg	109 kg	109 kg
<ul style="list-style-type: none"> • after end of life 	0.4 kg	0.57 kg	0.57 kg	0.4 kg	0.4 kg

product functions general					
MTBF	48 a	48 a	41 a	54 a	54 a
reference code					
<ul style="list-style-type: none"> • according to IEC 81346-2 	KF	KF	KF	KF	KF
<ul style="list-style-type: none"> • according to IEC 81346-2:2019 	KFE	KFE	KFE	KFE	KFE
Warranty period	5 a	5 a	5 a	5 a	5 a
product function is supported identification link	Yes; acc. to IEC 61406-1:2022	Yes; acc. to IEC 61406-1:2022	Yes; acc. to IEC 61406-1:2022	Yes; acc. to IEC 61406-1:2022	Yes; acc. to IEC 61406-1:2022

Article number	6GK5206-2RS00-2AC2	6GK5206-2RS00-5AC2	6GK5208-0RA00-2AC2	6GK5208-0RA00-5AC2
product type designation				
product brand name	SCALANCE	SCALANCE	SCALANCE	SCALANCE
product type designation	XC206-2G PoE		XC208G PoE	
transfer rate				
transfer rate	10 Mbit/s, 100 Mbit/s, 1 000 Mbit/s	10 Mbit/s, 100 Mbit/s, 1 000 Mbit/s	10 Mbit/s, 100 Mbit/s, 1 000 Mbit/s	10 Mbit/s, 100 Mbit/s, 1 000 Mbit/s
transfer rate	10 Gbit/s	10 Gbit/s		
interfaces for communication integrated				
number of electrical connections				
<ul style="list-style-type: none"> • for network components or terminal equipment 	6; RJ45	6; RJ45	8; RJ45	8; RJ45
number of 10/100/1000 Mbit/s RJ45 ports				
<ul style="list-style-type: none"> • with securing collar 	4 PoE ports according to IEEE 802.3at (30 W), 2 PoE ports according to IEEE 802.3bt (60 W)	4 PoE ports according to IEEE 802.3at (30 W), 2 PoE ports according to IEEE 802.3bt (60 W)	2; 4 PoE ports according to IEEE 802.3at (30 W), 2 PoE ports according to IEEE 802.3bt (60 W)	2; 4 PoE ports according to IEEE 802.3at (30 W), 2 PoE ports according to IEEE 802.3bt (60 W)
<ul style="list-style-type: none"> • with securing collar with PoE 		6	6	6
number of electrical connections				
<ul style="list-style-type: none"> • for SFP 		2	2	
interfaces for communication plug-in				
number of electrical connections				

<ul style="list-style-type: none"> • for SFP+ 	2; SFPs with 1000 Mbit/s or 10,000 Mbit/s possible; 100 Mbit/s with SFP991-1(LD) A possible	2; SFPs with 1000 Mbit/s or 10,000 Mbit/s possible; 100 Mbit/s with SFP991-1(LD) A possible		
interfaces other				
number of electrical connections				
<ul style="list-style-type: none"> • for operator console 	1	1	1	1
<ul style="list-style-type: none"> • for signaling contact 	1	1	1	1
type of electrical connection				
<ul style="list-style-type: none"> • for operator console 	RJ11	RJ11	RJ11	RJ11
<ul style="list-style-type: none"> • for signaling contact 	2-pole terminal block	2-pole terminal block	2-pole terminal block	2-pole terminal block
<ul style="list-style-type: none"> • for power supply 	4-pole terminal block	4-pole terminal block	4-pole terminal block	4-pole terminal block
design of the removable storage				
<ul style="list-style-type: none"> • C-PLUG 	Yes	Yes	Yes	Yes
operating voltage of the signaling contacts				
<ul style="list-style-type: none"> • at DC rated value 	24 V	54 V	24 V	54 V
operational current of the signaling contacts				
<ul style="list-style-type: none"> • at DC maximum 	0.1 A	0.1 A	0.1 A	0.1 A
supply voltage, current consumption, power loss				
product component connection for redundant voltage supply	Yes	Yes	Yes	Yes
supplied active power of PSE with PoE				
<ul style="list-style-type: none"> • total maximum 	144 W	260 W	144 W	260 W
type of voltage 1 of the supply voltage	DC	DC	DC	DC
<ul style="list-style-type: none"> • supply voltage 1 rated value 	24 V	54 V	24 V	54 V
<ul style="list-style-type: none"> • power loss [W] 1 rated value 	18 W	10 W		
<ul style="list-style-type: none"> • consumed current 1 at rated supply voltage maximum 			6 A	5 A
<ul style="list-style-type: none"> • supply voltage 1 rated value 	19.2 ... 31.2 V	52 ... 57 V	19.2 ... 31.2 V	52 ... 57 V
<ul style="list-style-type: none"> • consumed current 1 maximum 	6 A	5 A	7.5 A	5 A
<ul style="list-style-type: none"> • product component 1 fusing at power supply input 	Yes	Yes		

<ul style="list-style-type: none"> • fuse protection type 1 at input for supply voltage 	15 A / 125 V	15 A / 125 V	15 A / 125 V	15 A / 125 V
ambient conditions				
ambient temperature				
<ul style="list-style-type: none"> • during operation 	-40 ... +60 °C	-40 ... +60 °C	-40 ... +60 °C	-40 ... +60 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C
<ul style="list-style-type: none"> • during transport 	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C
<ul style="list-style-type: none"> • note 	installation position and SFPs used during the operation have to be considered (see manual)	installation position and SFPs used during the operation have to be considered (see manual)	installation position and SFPs used during the operation have to be considered (see manual)	installation position and SFPs used during the operation have to be considered (see manual)
relative humidity				
<ul style="list-style-type: none"> • at 25 °C without condensation during operation maximum 	95 %	95 %	95 %	95 %
protection class IP	IP20	IP20	IP20	IP20
design, dimensions and weights				
design	compact	compact	compact	compact
width	100 mm	60 mm	100 mm	60 mm
height	147 mm	147 mm	147 mm	147 mm
depth	125 mm	125 mm	125 mm	125 mm
net weight	0.955 kg	0.54 kg	0.955 kg	0.54 kg
product feature conformal coating	No	No	No	No
material of the enclosure	Polycarbonate (PC-GF10) / pressure die cast aluminum	Polycarbonate (PC-GF10) / pressure die cast aluminum	Polycarbonate (PC-GF10) / pressure die cast aluminum	Polycarbonate (PC-GF10) / pressure die cast aluminum
fastening method				
<ul style="list-style-type: none"> • 35 mm DIN-rail mounting 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • wall mounting 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • S7-300 rail mounting 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • S7-1500 rail mounting 	Yes	Yes	Yes	Yes
product features, product functions, product components general				
cascading in the case of a redundant ring at reconfiguration time of $\sim 0.3\text{ s}$		50	50	50
cascading in cases of star topology	any (depending only on signal propagation time)	any (depending only on signal propagation time)	any (depending only on signal propagation time)	any (depending only on signal propagation time)
product function				

<ul style="list-style-type: none"> • QoS according to DSCP 	Yes	Yes	Yes	Yes
product feature				
<ul style="list-style-type: none"> • Cut Through switching method 	No	No	No	No
<ul style="list-style-type: none"> • Store & Forward switching method 	Yes	Yes	Yes	Yes
product functions management, configuration, engineering				
product function				
<ul style="list-style-type: none"> • CLI 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • web-based management 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • MIB support 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • TRAPs via email 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • configuration with STEP 7 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • RMON 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • SMTP server 	No	No	No	No
<ul style="list-style-type: none"> • port mirroring 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • multiport mirroring 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • CoS 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • PROFINET IO diagnosis 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • switch-managed 	Yes	Yes	Yes	Yes
PROFINET conformity class	B	B	B	B
network load class according to PROFINET	III	III	III	III
telegram length for Ethernet maximum	10 240 byte	10 240 byte	10 240 byte	10 240 byte
protocol is supported				
<ul style="list-style-type: none"> • Telnet 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • HTTP 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • HTTPS 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • TFTP 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • SFTP 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • BOOTP 	No	No	No	No
<ul style="list-style-type: none"> • GMRP 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • DCP 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • LLDP 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • EtherNet/IP 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • SNMP v1 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • SNMP v2 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • SNMP v3 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • IGMP (snooping/querier) 	Yes	Yes	Yes	Yes

identification & maintenance function					
<ul style="list-style-type: none"> • I&M0 - device-specific information 	Yes	Yes	Yes	Yes	
<ul style="list-style-type: none"> • I&M1 - higher level designation/location designation 	Yes	Yes	Yes	Yes	
product functions diagnostics					
product function					
<ul style="list-style-type: none"> • port diagnostics 	Yes	Yes	Yes	Yes	
<ul style="list-style-type: none"> • statistics Packet Size 	Yes	Yes	Yes	Yes	
<ul style="list-style-type: none"> • statistics packet type 	Yes	Yes	Yes	Yes	
<ul style="list-style-type: none"> • error statistics 	Yes	Yes	Yes	Yes	
<ul style="list-style-type: none"> • SysLog 	Yes	Yes	Yes	Yes	
product functions VLAN					
product function					
<ul style="list-style-type: none"> • VLAN - port based 	Yes	Yes	Yes	Yes	
<ul style="list-style-type: none"> • VLAN - protocol-based 	No	No	No	No	
<ul style="list-style-type: none"> • VLAN - IP-based 	No	No	No	No	
number of VLANs maximum		257	257	257	257
number of VLANs - dynamic maximum		257	257	257	257
number of VLANs at ring redundancy (HRP; MRP; standby link)		257	257	257	257
product functions DHCP					
product function					
<ul style="list-style-type: none"> • DHCP server 	Yes	Yes	Yes	Yes	
<ul style="list-style-type: none"> • DHCP client 	Yes	Yes	Yes	Yes	
<ul style="list-style-type: none"> • DHCP Option 82 	Yes	Yes	Yes	Yes	
<ul style="list-style-type: none"> • DHCP Option 66 	Yes	Yes	Yes	Yes	
<ul style="list-style-type: none"> • DHCP Option 67 	Yes	Yes	Yes	Yes	
product functions redundancy					
protocol is supported Media Redundancy Protocol (MRP)	Yes	Yes	Yes	Yes	
product function					
<ul style="list-style-type: none"> • media redundancy protocol (MRP) with redundancy manager 	Yes	Yes	Yes	Yes	
<ul style="list-style-type: none"> • Media Redundancy Protocol Interconnection (MRP-I) 	Yes	Yes	Yes	Yes	
<ul style="list-style-type: none"> • of the PROFINET IO device is supported H-Sync forwarding 	Yes	Yes	Yes	Yes	

<ul style="list-style-type: none"> • of the PROFINET IO device is supported 	Yes	Yes	Yes	Yes
PROFINET system redundancy				
<ul style="list-style-type: none"> • ring redundancy 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • high speed redundancy protocol (HRP) with redundancy manager 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • high speed redundancy protocol (HRP) with standby redundancy 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • redundancy procedure STP 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • redundancy procedure RSTP 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • redundancy procedure RSTP+ 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • redundancy procedure MSTP 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • Parallel Redundancy Protocol (PRP)/operation in the PRP-network 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA) 	No	No	No	No
<ul style="list-style-type: none"> • passive listening 	Yes	Yes	Yes	Yes
protocol is supported				
<ul style="list-style-type: none"> • LACP 	Yes	Yes	Yes	Yes
system modification during operation				
product function configuration in RUN via CiR/H-CiR	Yes	Yes	Yes	Yes
product functions security				
product function				
<ul style="list-style-type: none"> • IEEE 802.1x (radius) 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • RADIUS client 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • broadcast/multicast /unicast limiter 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • broadcast blocking 	Yes	Yes	Yes	Yes
protocol is supported				
<ul style="list-style-type: none"> • SSH 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • SSL 	Yes	Yes	Yes	Yes
product functions time				
product function				
<ul style="list-style-type: none"> • SICLOCK support 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • NTP-client 	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • SNTP client 	Yes	Yes	Yes	Yes

protocol is supported				
• NTP	Yes	Yes	Yes	Yes
• SNTP	Yes	Yes	Yes	Yes
• IEEE 1588 profile default	Yes	Yes	Yes	Yes
standards, specifications, approvals				
certificate of suitability				
• CE marking	Yes	Yes	Yes	Yes
• KC approval	Yes	Yes	Yes	Yes
• Regulatory Compliance Mark (RCM)	Yes	Yes	Yes	Yes
product conformity according to EMC-guideline standard	2014/30/EU	2014/30/EU	2014/30/EU	2014/30/EU
• for EMC interference emission	EN 61000-6-4, EN 50121-4	EN 61000-6-4, EN 50121-4	EN 61000-6-4, EN 50121-4	EN 61000-6-4, EN 50121-4
• for immunity to EMC	EN 61000-6-2, EN 50121-4	EN 61000-6-2, EN 50121-4	EN 61000-6-2, EN 50121-4	EN 61000-6-2, EN 50121-4
standards, specifications, approvals hazardous environments				
certificate of suitability				
• ATEX	Yes	Yes	Yes	Yes
• UKEX	Yes	Yes	Yes	Yes
• IECEx	Yes	Yes	Yes	Yes
• CCC for hazardous zone according to GB standard	Yes	Yes	Yes	Yes
• FM registration	Yes	Yes	Yes	Yes
standards, specifications, approvals other				
certificate of suitability				
• railway application in accordance with EN 50121-4	Yes	Yes	Yes	Yes
IT security for industrial automation systems according to IEC 62443-4-2:2019	Yes	Yes	Yes	Yes
standards, specifications, approvals marine classification				
Marine classification association				
• American Bureau of Shipping Europe Ltd. (ABS)	Yes		Yes	

<ul style="list-style-type: none"> • French marine classification society (BV) • Chinese Classification Society (CCS) • Det Norske Veritas (DNV) • Korean Register of Shipping (KRS) • Lloyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (NK) • Polski Rejestr Statkow (PRS) • Royal Institution of Naval Architects (RINA) 	Yes		Yes	
standards, specifications, approvals				
Environmental Product Declaration				
Environmental Product Declaration	Yes	Yes	Yes	Yes
global warming potential [CO2 eq]				
<ul style="list-style-type: none"> • total • during manufacturing • during operation • after end of life 	942.3 kg	491.2 kg	942.3 kg	491.2 kg
	63.42 kg	52.28 kg	63.42 kg	52.28 kg
	878.11 kg	438.3 kg	878.11 kg	438.3 kg
	0.76 kg	0.62 kg	0.76 kg	0.62 kg
product functions general				
MTBF	42 a	37 a	42 a	37 a
reference code				
<ul style="list-style-type: none"> • according to IEC 81346-2 • according to IEC 81346-2:2019 	KF	KF	KF	KF
	KFE	KFE	KFE	KFE
Warranty period	5 a	5 a	5 a	5 a
product function is supported identification link	Yes; acc. to IEC 61406-1:2022	Yes; acc. to IEC 61406-1:2022	Yes; acc. to IEC 61406-1:2022	Yes; acc. to IEC 61406-1:2022
further information internet links				

Article number	6GK5216-3RS00-2AC2	6GK5216-3RS00-5AC2
product type designation		
product brand name	SCALANCE	SCALANCE
transfer rate		
transfer rate	10 Mbit/s, 100 Mbit/s, 1 000 Mbit/s	10 Mbit/s, 100 Mbit/s, 1 000 Mbit/s
transfer rate	10 Gbit/s	10 Gbit/s
interfaces for communication integrated		

number of electrical connections			
<ul style="list-style-type: none"> for network components or terminal equipment 	16; RJ45	16; RJ45	
number of 10/100/1000 Mbit/s RJ45 ports			
<ul style="list-style-type: none"> with securing collar 	16; 12 PoE ports according to IEEE 802.3at (30 W), 2 PoE ports according to IEEE 802.3bt (60 W)	16; 12 PoE ports according to IEEE 802.3at (30 W), 2 PoE ports according to IEEE 802.3bt (60 W)	
<ul style="list-style-type: none"> with securing collar with PoE 		14	14
number of electrical connections			
<ul style="list-style-type: none"> for SFP 		3	3
interfaces for communication plug-in			
number of electrical connections			
<ul style="list-style-type: none"> for SFP 		1	1
<ul style="list-style-type: none"> for SFP+ 	2; SFPs with 1000 Mbit/s or 10,000 Mbit/s possible; 100 Mbit/s with SFP991-1(LD) A possible	2; SFPs with 1000 Mbit/s or 10,000 Mbit/s possible; 100 Mbit/s with SFP991-1(LD) A possible	
interfaces other			
number of electrical connections			
<ul style="list-style-type: none"> for operator console 		1	1
<ul style="list-style-type: none"> for signaling contact 		1	1
type of electrical connection			
<ul style="list-style-type: none"> for operator console 	RJ11	RJ11	
<ul style="list-style-type: none"> for signaling contact 	2-pole terminal block	2-pole terminal block	
<ul style="list-style-type: none"> for power supply 	4-pole terminal block	4-pole terminal block	
design of the removable storage			
<ul style="list-style-type: none"> C-PLUG 	Yes	Yes	
operating voltage of the signaling contacts			

<ul style="list-style-type: none"> • at DC rated value 	24 V	54 V
operational current of the signaling contacts		
<ul style="list-style-type: none"> • at DC maximum 	0.1 A	0.1 A
supply voltage, current consumption, power loss		
product component connection for redundant voltage supply	Yes	Yes
supplied active power of PSE with PoE		
<ul style="list-style-type: none"> • total maximum 	150 W	338 W
type of voltage 1 of the supply voltage	DC	DC
<ul style="list-style-type: none"> • supply voltage 1 rated value 	24 V	54 V
<ul style="list-style-type: none"> • power loss [W] 1 rated value 	28 W	28 W
<ul style="list-style-type: none"> • supply voltage 1 rated value 	19.2 ... 31.2 V	52 ... 57 V
<ul style="list-style-type: none"> • consumed current 1 maximum 	7.8 A	6.5 A
<ul style="list-style-type: none"> • product component 1 fusing at power supply input 	Yes	Yes
<ul style="list-style-type: none"> • fuse protection type 1 at input for supply voltage 	15 A / 125 V	15 A / 125 V
ambient conditions		
ambient temperature		
<ul style="list-style-type: none"> • during operation 	-40 ... +60 °C	-40 ... +60 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +85 °C	-40 ... +85 °C
<ul style="list-style-type: none"> • during transport 	-40 ... +85 °C	-40 ... +85 °C
<ul style="list-style-type: none"> • note 	installation position and SFPs used during the operation have to be considered (see manual)	installation position and SFPs used during the operation have to be considered (see manual)
relative humidity		
<ul style="list-style-type: none"> • at 25 °C without condensation during operation maximum 	95 %	95 %
protection class IP	IP20	IP20
design, dimensions and weights		
design	compact	compact
width	180 mm	140 mm
height	147 mm	147 mm

depth	125 mm	125 mm
net weight	1.56 kg	1.14 kg
product feature conformal coating	No	No
material of the enclosure	Polycarbonate (PC-GF10) / pressure die cast aluminum	Polycarbonate (PC-GF10) / pressure die cast aluminum
fastening method		
• 35 mm DIN-rail mounting	Yes	Yes
• wall mounting	No	No
• S7-300 rail mounting	Yes	Yes
• S7-1500 rail mounting	Yes	Yes
product features, product functions, product components general		
cascading in the case of a redundant ring at reconfiguration time of $\leq 0.3\text{ s}$		50
		50
cascading in cases of star topology	any (depending only on signal propagation time)	any (depending only on signal propagation time)
product function		
• QoS according to DSCP	Yes	Yes
product feature		
• Cut Through switching method	No	No
• Store & Forward switching method	Yes	Yes
product functions management, configuration, engineering		
product function		
• CLI	Yes	Yes
• web-based management	Yes	Yes
• MIB support	Yes	Yes
• TRAPs via email	Yes	Yes
• configuration with STEP 7	Yes	Yes
• RMON	Yes	Yes
• SMTP server	No	No
• port mirroring	Yes	Yes
• multiport mirroring	Yes	Yes
• CoS	Yes	Yes
• PROFINET IO diagnosis	Yes	Yes
• switch-managed	Yes	Yes

• Switch managed	Yes	Yes
PROFINET conformity class	B	B
network load class according to PROFINET	III	III
telegram length for Ethernet maximum	10 240 byte	10 240 byte
protocol is supported		
• Telnet	Yes	Yes
• HTTP	Yes	Yes
• HTTPS	Yes	Yes
• TFTP	Yes	Yes
• SFTP	Yes	Yes
• BOOTP	No	No
• GMRP	Yes	Yes
• DCP	Yes	Yes
• LLDP	Yes	Yes
• EtherNet/IP	Yes	Yes
• SNMP v1	Yes	Yes
• SNMP v2	Yes	Yes
• SNMP v3	Yes	Yes
• IGMP (snooping/querier)	Yes	Yes
identification & maintenance function		
• I&M0 - device-specific information	Yes	Yes
• I&M1 - higher level designation/location designation	Yes	Yes
product functions diagnostics		
product function		
• port diagnostics	Yes	Yes
• statistics Packet Size	Yes	Yes
• statistics packet type	Yes	Yes
• error statistics	Yes	Yes
• SysLog	Yes	Yes
product functions VLAN		
product function		
• VLAN - port based	Yes	Yes
• VLAN - protocol-based	No	No
• VLAN - IP-based	No	No
number of VLANs maximum	257	257
number of VLANs - dynamic maximum	257	257

number of VLANs at ring redundancy (HRP; MRP; standby link)		257	257
product functions			
DHCP			
product function			
• DHCP server	Yes	Yes	
• DHCP client	Yes	Yes	
• DHCP Option 82	Yes	Yes	
• DHCP Option 66	Yes	Yes	
• DHCP Option 67	Yes	Yes	
product functions			
redundancy			
protocol is supported Media Redundancy Protocol (MRP)	Yes	Yes	
product function			
• media redundancy protocol (MRP) with redundancy manager	Yes	Yes	
• Media Redundancy Protocol Interconnection (MRP-I)	Yes	Yes	
• of the PROFINET IO device is supported H-Sync forwarding	Yes	Yes	
• of the PROFINET IO device is supported PROFINET system redundancy	Yes	Yes	
• ring redundancy	Yes	Yes	
• high speed redundancy protocol (HRP) with redundancy manager	Yes	Yes	
• high speed redundancy protocol (HRP) with standby redundancy	Yes	Yes	
• redundancy procedure STP	Yes	Yes	
• redundancy procedure RSTP	Yes	Yes	
• redundancy procedure RSTP+	Yes	Yes	
• redundancy procedure MSTP	Yes	Yes	
• Parallel Redundancy Protocol (PRP)/operation in the PRP-network	Yes	Yes	
• Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA)	No	No	

<ul style="list-style-type: none"> • passive listening 	Yes	Yes
protocol is supported		
<ul style="list-style-type: none"> • LACP 	Yes	Yes
system modification during operation		
product function configuration in RUN via CiR/H-CiR	Yes	Yes
product functions security		
product function		
<ul style="list-style-type: none"> • IEEE 802.1x (radius) 	Yes	Yes
<ul style="list-style-type: none"> • RADIUS client 	Yes	Yes
<ul style="list-style-type: none"> • broadcast/multicast /unicast limiter 	Yes	Yes
<ul style="list-style-type: none"> • broadcast blocking 	Yes	Yes
protocol is supported		
<ul style="list-style-type: none"> • SSH 	Yes	Yes
<ul style="list-style-type: none"> • SSL 	Yes	Yes
product functions time		
product function		
<ul style="list-style-type: none"> • SICLOCK support 	Yes	Yes
<ul style="list-style-type: none"> • NTP-client 	Yes	Yes
<ul style="list-style-type: none"> • SNTP client 	Yes	Yes
protocol is supported		
<ul style="list-style-type: none"> • NTP 	Yes	Yes
<ul style="list-style-type: none"> • SNTP 	Yes	Yes
<ul style="list-style-type: none"> • IEEE 1588 profile default 	Yes	Yes
standards, specifications, approvals		
certificate of suitability		
<ul style="list-style-type: none"> • CE marking 	Yes	Yes
<ul style="list-style-type: none"> • KC approval 	Yes	Yes
<ul style="list-style-type: none"> • Regulatory Compliance Mark (RCM) 	Yes	Yes
product conformity according to EMC-guideline standard	2014/30/EU	2014/30/EU
<ul style="list-style-type: none"> • for EMC interference emission 	EN 61000-6-4, EN 50121-4	EN 61000-6-4, EN 50121-4
<ul style="list-style-type: none"> • for immunity to EMC 	EN 61000-6-2, EN 50121-4	EN 61000-6-2, EN 50121-4
standards, specifications, approvals hazardous environments		

certificate of suitability		
• ATEX	Yes	Yes
• UKEX	Yes	Yes
• IECEX	Yes	Yes
• CCC for hazardous zone according to GB standard	Yes	Yes
• FM registration	Yes	Yes
standards, specifications, approvals other		
certificate of suitability		
• railway application in accordance with EN 50121-4	Yes	Yes
resistance to air pollution conformity according to ANSI/ISA-71.04	Yes; G3	Yes; G3
IT security for industrial automation systems according to IEC 62443-4-2:2019	Yes	Yes
standards, specifications, approvals marine classification		
Marine classification association		
• American Bureau of Shipping Europe Ltd. (ABS)	Yes	
• French marine classification society (BV)	Yes	
• Chinese Classification Society (CCS)	Yes	
• Det Norske Veritas (DNV)	Yes	
• Korean Register of Shipping (KRS)	Yes	
• 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 Environmental Product Declaration		
Environmental Product Declaration	Yes	Yes
global warming potential [CO2 eq]		
• total	942.3 kg	491.2 kg

- during manufacturing 63.42 kg 52.28 kg
- during operation 878.11 kg 438.3 kg
- after end of life 0.76 kg 0.62 kg

product functions
general

MTBF	24.6 a	23 a
reference code		
• according to IEC 81346-2	KF	KF
• according to IEC 81346-2:2019	KFE	KFE