



SCALANCE XM416-4C; managed modular IE switch; 16x 10/100/1000 Mbit/s RJ45; 4x 100/1000 Mbit/s SFP; contains 4 combo ports; in total 16 ports can be used; expandable to 24 ports electrical or optical; assembly: DIN rail/S7 mounting rail, PROFINET IO device; redundancy functions; office features (RSTP, VLAN, IGMP,...); C-PLUG in scope of supply; layer 3 with Key-Plug plug available .

product type designation	
product brand name	SCALANCE
product type designation	XM416-4C
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; RJ45 with securing collar
number of 10/100/1000 Mbit/s RJ45 ports	
• with securing collar	16
number of electrical connections	
• for SFP	4; 100 Mbit/s or 1000 Mbit/s SFP plug-in transceiver
number of combo ports / with RJ45 interface for optical plug-in transceiver	4; 100 Mbit/s or 1000 Mbit/s SFP plug-in transceiver
interfaces / for communication / plug-in	
number of 10/100/1000 Mbit/s RJ45 ports	
• with securing collar	8
• with securing collar / with PoE	8
number of 100 Mbit/s LC ports	
• for multimode	12
• for single mode (LD)	12
• for single mode (LH+)	12
• for single mode (ELH200)	12
number of 1000 Mbit/s LC ports	
• for multimode	12
• for single mode (LD)	12
• for single mode (LH)	12
• for single mode (LH+)	12
• for single mode (ELH)	12
number of electrical connections	
• for SFP	12
interfaces / other	
number of electrical connections	
• for operator console	1
• for signaling contact	1
• for power supply	1
type of electrical connection	
• for operator console	RJ11
• for management purposes	RJ45
• for signaling contact	2-pole terminal block

number of extender expansion interfaces	2
design of the removable storage	
• C-PLUG	Yes
product feature / hot-swappable interface modules	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
supplied active power / of PSE / with PoE	
• per port / maximum	30 W
• total / maximum	180 W
type of voltage / 1 / of the supply voltage	DC
• supply voltage / 1 / rated value	24 V
• power loss [W] / 1 / rated value	48 W
• supply voltage / 1 / rated value	19.2 ... 28.8 V
• consumed current / 1 / maximum	2 A
• type of electrical connection / 1 / for power supply	4-pole terminal block
• product component / 1 / fusing at power supply input	Yes
• fuse protection type / 1 / at input for supply voltage	F 15 A / 125 V
ambient conditions	
ambient temperature	
• during operation	-40 ... +70 °C
• during storage	-40 ... +85 °C
• during transport	-40 ... +85 °C
relative humidity	
• at 25 °C / without condensation / during operation / maximum	95 %
protection class IP	IP20
design, dimensions and weights	
design	modular
width	140 mm
height	147 mm
depth	125 mm
net weight	1.25 kg
fastening method	
• 35 mm top hat DIN rail mounting	Yes
• S7-300 rail mounting	Yes
• S7-1500 rail mounting	Yes
product features, product functions, product components / general	
cascading in the case of a redundant ring / at reconfiguration time of <1~0.31~s	50
cascading in cases of star topology	any (depending only on signal propagation time)
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
• port mirroring	Yes
• multiport mirroring	Yes
• CoS	Yes
• PROFINET IO diagnosis	Yes
• switch-managed	Yes
PROFINET conformity class	B
telegram length / for Ethernet / maximum	9216 byte
protocol / is supported	
• Telnet	Yes

• HTTP	Yes
• HTTPS	Yes
• TFTP	Yes
• FTP	Yes
• BOOTP	Yes
• 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	Yes
• VLAN - IP-based	Yes
• VLAN dynamic	Yes
number of VLANs / maximum	255
number of VLANs - dynamic / maximum	255
product functions / DHCP	
product function	
• DHCP client	Yes
• DHCP Option 82	Yes
• DHCP Option 66	Yes
• DHCP Option 67	Yes
product functions / routing	
service / routing / note	IP routing in combination with KEY-PLUG XM-400
product function	
• static IP routing	Yes
• static IP routing IPv6	Yes
• dynamic IP routing	Yes
• dynamic IP routing IPv6	Yes
protocol / is supported	
• RIPv2	Yes
• RIPnG for IPv6	Yes
• OSPFv2	Yes
• OSPFv3 for IPv6	Yes
• VRRP	Yes
• VRRP for IPv6	Yes
product functions / redundancy	
protocol / is supported / Media Redundancy Protocol (MRP)	Yes
product function	
• media redundancy protocol (MRP) with redundancy manager	Yes
• 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+	Yes
• redundancy procedure MSTP	Yes
• passive listening	Yes
protocol / is supported	
• LACP	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
• broadcast/multicast/unicast limiter	Yes
• broadcast blocking	Yes
protocol / is supported	
• SSH	Yes
• SSL	Yes
product functions / time	
product function	
• SICLOCK support	Yes
• NTP-client	Yes
• SNTP client	Yes
protocol / is supported	
• NTP	Yes
• SNTP	Yes
standards, specifications, approvals	
certificate of suitability	
• CE marking	Yes
• UKCA marking	Yes
• cULus approval	Yes
• KC approval	Yes
• Regulatory Compliance Mark (RCM)	Yes
standard	
• 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 508, UL 60950-1, CSA C22.2 Nr. 60950-1-03
standards, specifications, approvals / hazardous environments	
certificate of suitability	
• ATEX	Yes
• UKEX	Yes
• IECEx	Yes
• ULhazloc approval	Yes
• CCC / for hazardous zone according to GB standard	Yes
• FM registration	Yes
standards, specifications, approvals / other	
certificate of suitability	
• RoHS conformity	Yes
resistance to air pollution / conformity according to ANSI/ISA-71.04	Yes
standards, specifications, approvals / marine classification	
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	Yes
• French marine classification society (BV)	Yes
• DNV GL	Yes
• Lloyds Register of Shipping (LRS)	Yes
• Nippon Kaiji Kyokai (NK)	Yes

• Polski Rejestr Statkow (PRS) • Royal Institution of Naval Architects (RINA)	Yes Yes					
product functions / general						
MTBF	22 a					
reference code • according to IEC 81346-2 • according to IEC 81346-2:2019	KF KFE					
Warranty period	5 a					
further information / internet links						
internet link • to website: Selection guide for cables and connectors • to web page: selection aid TIA Selection Tool • to website: Industrial communication • to web page: SiePortal • to website: Image database • to website: CAX-Download-Manager • to website: Industry Online Support	https://support.industry.siemens.com/cs/ww/en/view/109766358 https://www.siemens.com/tstcloud https://www.siemens.com/simatic-net https://sieportal.siemens.com/ https://www.automation.siemens.com/bilddb https://www.siemens.com/cax https://support.industry.siemens.com					
security information						
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General Product Approval	EMV	For use in hazardous locations				
 RCM	KC	 IECEx	 ATEX	FM	CCC-Ex	
Test Certificates		Marine / Shipping				
Type Test Certificates/Test Report		 ABS	 BUREAU VERITAS	 DNV	 LRS	NK / Nippon Kaiji Kyokai
Marine / Shipping		Environment		Industrial Communication		



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