# SIEMENS

**Data sheet**          **6GK5216-0HA00-2ES6**

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 | SCALANCE XP216EEC |
|---|---|
| **transfer rate** | |
| transfer rate | 10 Mbit/s, 100 Mbit/s, 1000 Mbit/s |
| **interfaces / for communication / maximum configuration for modular devices** | |
| number of electrical ports / maximum | 16 |
| **interfaces / for communication / integrated** | |
| number of electrical connections | |
| ● for network components or terminal equipment | 16 |
| number of 10/100 Mbit/s M12-ports (D-coded) / integrated | 12 |
| number of 10/100/1000 Mbit/s M12-ports (X-coded) / integrated | 4 |
| **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 | 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 |
| **signal inputs/outputs** | |
| 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 |
| **ambient conditions** | |
| ambient temperature | |
| ● during operation | -40 ... +70 °C |
| ● during storage | -40 ... +70 °C |

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| | |
|---|---|
| ● during transport | -40 ... +70 °C |
| ● note | EEC variants with EN 50155 support for 10 minutes: -40 °C ... +85 °C |
| relative humidity | |
| ● at 25 °C / without condensation / during operation / maximum | 95 % |
| protection class IP | IP65 |

| design, dimensions and weights | |
|---|---|
| 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 | 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 |
| ● with IRT / PROFINET IO switch | No |
| ● PROFINET IO diagnosis | Yes |
| PROFINET conformity class | B |
| product function / switch-managed | Yes |
| telegram length / for Ethernet / maximum | 1518 byte |
| protocol / is supported | |
| ● Telnet | Yes |
| ● HTTP | Yes |
| ● HTTPS | Yes |
| ● TFTP | Yes |
| ● FTP | Yes |
| ● BOOTP | No |
| ● 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 |
| ● loopback diagnostics | Yes |

| product functions / VLAN | |
| --- | --- |
| product function | |
| ● VLAN - port based | Yes |
| ● VLAN - protocol-based | No |
| ● VLAN - IP-based | No |
| ● VLAN dynamic | No |
| number of VLANs / maximum | 257 |
| number of VLANs - dynamic / maximum | 257 |
| number of VLANs / at ring redundancy (HRP; MRP; standby link) | 35 |
| **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** | |
| product function | |
| ● of the PROFINET IO device / is supported / PROFINET system redundancy | Yes |
| ● ring redundancy | Yes |
| ● High Speed Redundancy Protocol (HRP) | Yes |
| ● high speed redundancy protocol (HRP) with redundancy manager | Yes |
| ● high speed redundancy protocol (HRP) with standby redundancy | Yes |
| 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 |
| ● redundancy procedure RSTP | Yes |
| ● redundancy procedure RSTP+ | Yes |
| ● redundancy procedure MSTP | Yes |
| ● passive listening | Yes |
| **product functions / security** | |
| product function | |
| ● RADIUS client | 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 |
| **system modification during operation** | |
| product function / configuration in RUN via CiR/H-CiR | Yes |
| **standards, specifications, approvals** | |
| standard | |
| ● for FM | FM3611: Class 1, Division 2, Group A, B, C, D / T4, CL.1, Zone 2, GP. IIC, T4, FM16US0205X |
| ● for emitted interference | EN 61000-6-4 (Class A) |
| ● for interference immunity | EN 61000-6-2 |
| IT security for industrial automation systems / according to IEC 62443-4-2:2019 | Yes |
| reference code | |

| | |
|---|---|
| ● according to IEC 81346-2 | KF |
| ● according to IEC 81346-2:2019 | KFE |

## standards, specifications, approvals / CE

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|---|---|
| certificate of suitability / CE marking | Yes |
| certificate of suitability / RoHS conformity | Yes |

## standards, specifications, approvals / hazardous environments

| | |
|---|---|
| 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 | 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, T4 |
| certificate of suitability | |
| ● CCC / for hazardous zone according to GB standard | Yes |
| ● CCC / for hazardous zone according to GB standard / as marking | Ex nA IIC T4 Gc |

## standards, specifications, approvals / other

| | |
|---|---|
| certificate of suitability | |
| ● C-Tick | Yes |
| ● KC approval | Yes |
| ● E1 approval | Yes |
| ● E1 approval | Yes |
| ● 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 |

## 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 |
| ● Korean Register of Shipping (KRS) | Yes |
| ● Polski Rejestr Statkow (PRS) | Yes |

## accessories

| | |
|---|---|
| product extension / optional / C-PLUG | Yes |

## further information / internet links

| | |
|---|---|
| internet link | |
| ● to web page: selection aid TIA Selection Tool | 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 | http://www.siemens.com/cax |
| ● to website: Industry Online Support | https://support.industry.siemens.com |

## security information

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|---|---|
| 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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