# SIEMENS

**Data sheet**  **6GK5816-1BA00-2AA2**

| product type designation | **M816-1 ADSL2+ (Annex B)** |
|---|---|
|  | SCALANCE M816-1 ADSL router; for wire-bound IP communication from Ethernet-based automation devices via Internet service provider; VPN, Firewall, NAT; 4-port switch; 1x digital input, 1x digital output; ADSL2+,Annex B,yes . |

| transfer rate | |
|---|---|
| transfer rate / for Industrial Ethernet | 10 Mbit/s, 100 Mbit/s |
| transfer rate | |
| ● for ADSL2+ transmission / with downlink / maximum | 25 Mbit/s |
| ● for ADSL2+ transmission / with uplink / maximum | 1.4 Mbit/s |
| **interfaces** | |
| number of electrical connections | |
| ● for internal network | 4 |
| ● for external network | 1 |
| number of electrical connections | |
| ● for power supply | 2 |
| type of electrical connection | |
| ● for internal network | RJ45 port (10/100 Mbit/s, TP, autocrossover) |
| ● for external network | RJ45 DSL Port |
| ● for power supply | Terminal strip |
| **WAN connection** | |
| type of WAN connection / is supported | ADSL, ADSL2, ADSL2+ |
| operating mode for ADSL2/ADSL2+ / is supported | Annex B, Annex J |
| **supply voltage, current consumption, power loss** | |
| supply voltage / rated value | 24 V |
| supply voltage / rated value | 10.8 ... 28.8 |
| type of voltage / of the supply voltage | DC |
| consumed current | |
| ● at DC / at 24 V / typical | 0.33 A |
| power loss [W] | |
| ● maximum | 8 W |
| **ambient conditions** | |
| ambient temperature | |
| ● during operation | 0 ... 60 °C |
| ● during storage | -40 ... +70 °C |
| relative humidity / at 25 °C / during operation / maximum | 95 % |
| protection class IP | IP20 |
| **design, dimensions and weights** | |
| design | compact |
| depth | 127 mm |
| height | 147 mm |
| width | 35 mm |
| net weight | 400 g |
| fastening method | |

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| | |
|---|---|
| ● 35 mm top hat DIN rail mounting | Yes |
| ● S7-300 rail mounting | Yes |
| ● S7-1500 rail mounting | Yes |
| ● wall mounting | Yes |

**product features, product functions, product components / general**

| | |
|---|---|
| product function | |
| ● DynDNS client | Yes |
| ● no-ip.com client | Yes |

**product functions / management, configuration, engineering**

| | |
|---|---|
| product function | |
| ● CLI | Yes |
| ● web-based management | Yes |
| ● MIB support | Yes |
| ● TRAPs via email | Yes |
| protocol / is supported | |
| ● Telnet | Yes |
| ● HTTP | Yes |
| ● HTTPS | Yes |
| type of configuration | Web-based management |

**product functions / diagnostics**

| | |
|---|---|
| protocol / is supported | |
| ● SNMP v1 | Yes |
| ● SNMP v2 | Yes |
| ● SNMP v2c | Yes |
| ● SNMP v3 | Yes |
| product function | |
| ● statistics Packet Size | No |
| ● statistics packet type | No |
| ● error statistics | No |
| ● SysLog | Yes |
| ● packet filter log | Yes |

**product functions / DHCP**

| | |
|---|---|
| product function | |
| ● DHCP client | Yes |
| ● DHCP server - internal network | Yes |

**product functions / routing**

| | |
|---|---|
| router function | |
| ● NAT (IP masquerading) | Yes |
| ● port forwarding | Yes |
| ● NAT traversal | Yes |
| ● 1:1 NAT | Yes |
| ● DNS cache | Yes |

**product functions / security**

| | |
|---|---|
| suitability for operation / Virtual Private Network | Yes |
| firewall version | Statefull Inspection |
| product function | |
| ● password protection | Yes |
| ● packet filter | Yes |
| ● broadcast/multicast/unicast limiter | No |
| product function | |
| ● broadcast blocking | No |
| ● with VPN connection | IPsec, OpenVPN (as Client) |
| number of possible connections / with VPN connection | 20 |
| type of authentication / with Virtual Private Network / PSK | Yes |
| protocol / is supported | |
| ● IPsec tunnel and transport mode | Yes |
| key length | |
| ● 1 / with IPsec AES / with Virtual Private Network | 128 bit |
| ● 2 / with IPsec AES / with Virtual Private Network | 192 bit |
| ● 3 / with IPsec AES / with Virtual Private Network | 256 bit |

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| | |
|---|---|
| ● with IPsec 3DES / with Virtual Private Network | 168 bit |
| type of Internet key exchange / with Virtual Private Network | |
| ● main mode | Yes |
| ● quick mode | Yes |
| type of packet authentication / with Virtual Private Network | MD5, SHA-1, SHA-256, SHA-384, SHA-512 |
| IETF profile / with Virtual Private Network / X.509v3 certificate | Yes |

| **product functions / time** | |
|---|---|
| protocol / is supported | |
| ● NTP | Yes |
| ● SNTP | Yes |

| **standards, specifications, approvals** | |
|---|---|
| standard | |
| ● for EMC | EN 55022, EN 55024 |
| ● for FM | FM16US0205X, FM 3611: Class I, Division 2, Groups A,B,C,D, T4 / Class 1, Zone 2, Group IIC, T4 |
| ● for hazardous zone | EN 60079-15, EN 60079-0, II 3 G Ex nA IIC T4 Gc, KEMA 07ATEX0145 X |
| ● for hazardous zone / from CSA and UL | ANSI/ISA 12.12.01-2013, CAN/CSA C22.2 No.213-M1987, Cl. 1, div. 2, GP. A, B, C, D, T4 / Cl. 1, Zone 2, GP IIC E240480 |
| ● for emitted interference | EN 55022 Class A |
| ● for interference immunity | EN 55024 |
| certificate of suitability | |
| ● CE marking | Yes |
| ● CCC approval | Yes; GB3836.1, GB3836.8, Ex nA IIC T4 Gc |

| **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: Selection guide for cables and connectors | http://www.siemens.com/snst |
| ● 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** | |
|---|---|
| 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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