

### Product type designation



### SCALANCE M816-1 ADSL2+ (Annex B)

SCALANCE M816-1 ADSL-ROUTER; FOR WIRE-DEPENDENT IP-COMMUNICATION OF ETHERNET- BASED AUTOMATIION DEVICES VIA INTERNE SERVICE PROVIDER VPN, FIREWALL, NAT 4-PORT SWITCH 1X DIG. INPUT, 1X DIG. OUTPUT ADSL2+, ANNEX B

### Transmission rate

Transfer rate	10 Mbit/s, 100 Mbit/s
<ul style="list-style-type: none"> <li>• Transfer rate / for ADSL2+ transmission / with downlink / maximum</li> </ul>	25 Mbit/s
<ul style="list-style-type: none"> <li>• Transfer rate / for ADSL2+ transmission / with uplink / maximum</li> </ul>	1.4 Mbit/s

### Interfaces

Number of electrical connections	
<ul style="list-style-type: none"> <li>• for internal network</li> <li>• for external network</li> <li>• for power supply</li> </ul>	4 1 2
Type of electrical connection	
<ul style="list-style-type: none"> <li>• for internal network</li> <li>• for external network</li> <li>• for power supply</li> </ul>	RJ45 port (10/100 Mbit/s, TP, autocrossover) RJ45 port Terminal strip

### Signal-Inputs/outputs

Number of electrical connections	
<ul style="list-style-type: none"> <li>• for digital input signals</li> <li>• for digital output signals</li> </ul>	1 1
Type of electrical connection	
<ul style="list-style-type: none"> <li>• for digital input signals</li> <li>• for digital output signals</li> </ul>	Terminal block Terminal block

### WAN connection

Type of WAN connection / is supported	ADSL, ADSL2, ADSL2+
Operating mode for ADSL2/ADSL2+ / is supported	Annex B
<b>Supply voltage, current consumption, power loss</b>	
Supply voltage / Rated value	24 V
Supply voltage / Rated value	10.8 ... 28.8
Type of voltage / of the supply voltage	DC
Active power loss	
• maximum	8 W
<b>Permitted ambient conditions</b>	
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
<b>Design, dimensions and weight</b>	
Design	compact
Depth	127 mm
Height	147 mm
Width	35 mm
Net weight	400 g
Mounting type	
• 35 mm DIN rail mounting	Yes
• S7-300 rail mounting	Yes
• S7-1500 rail mounting	Yes
• wall mounting	Yes
<b>Product properties, functions, components / general</b>	
Product function	
• DynDNS client	Yes
• no-ip.com client	Yes
<b>Product functions / management, configuration</b>	
Product function	
• CLI	No
• web-based management	Yes
• MIB support	Yes
• TRAPs via email	Yes
Protocol / is supported	
• Telnet	No
• HTTP	Yes
• HTTPS	Yes

Type of configuration	Web-based management
<b>Product functions / Diagnosis</b>	
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
<b>Product functions / DHCP</b>	
Product function	
• DHCP client	Yes
• DHCP server - internal network	Yes
<b>Product functions / Routing</b>	
Router function	
• NAT (IP masquerading)	Yes
• Port forwarding	Yes
• NAT traversal	Yes
• 1:1 NAT	Yes
• DNS cache	Yes
<b>Product functions / Security</b>	
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
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	

<ul style="list-style-type: none"> <li>• with IPsec DES / with Virtual Private Network</li> </ul>	56 bit
<ul style="list-style-type: none"> <li>• 1 / with IPsec AES / with Virtual Private Network</li> </ul>	128 bit
<ul style="list-style-type: none"> <li>• 2 / with IPsec AES / with Virtual Private Network</li> </ul>	192 bit
<ul style="list-style-type: none"> <li>• 3 / with IPsec AES / with Virtual Private Network</li> </ul>	256 bit
<ul style="list-style-type: none"> <li>• with IPsec 3DES / with Virtual Private Network</li> </ul>	168 bit
Type of Internet key exchange / with Virtual Private Network	
<ul style="list-style-type: none"> <li>• main mode</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• quick mode</li> </ul>	Yes
Type of packet authentication / with Virtual Private Network	MD5, SHA-1
IETF profile / with Virtual Private Network / X.509v3 certificate	Yes

### Product functions / Time

Protocol / is supported	
<ul style="list-style-type: none"> <li>• NTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNTP</li> </ul>	Yes

### Standards, specifications, approvals

Certificate of suitability	
<ul style="list-style-type: none"> <li>• CE marking</li> </ul>	Yes

### Further Information / Internet Links

Internet-Link	
<ul style="list-style-type: none"> <li>• to website: Selector for cables and connectors</li> </ul>	<a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a>
<ul style="list-style-type: none"> <li>• to website: Selector SIMATIC NET SELECTION TOOL</li> </ul>	<a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a>
<ul style="list-style-type: none"> <li>• to website: Industrial communication</li> </ul>	<a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a>
<ul style="list-style-type: none"> <li>• to website: Industry Mall</li> </ul>	<a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>
<ul style="list-style-type: none"> <li>• to website: Information and Download Center</li> </ul>	<a href="http://www.siemens.com/automation/net/catalog">http://www.siemens.com/automation/net/catalog</a>
<ul style="list-style-type: none"> <li>• to website: Image database</li> </ul>	<a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a>
<ul style="list-style-type: none"> <li>• to website: CAx Download Manager</li> </ul>	<a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>
<ul style="list-style-type: none"> <li>• to website: Industry Online Support</li> </ul>	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

### 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)

**last modified:**

16.03.2015