

### product type designation



### W774-1 M12 EEC (USA)

IWLAN Access Point, SCALANCE W774-1 M12 EEC, 1 radio, 2 R-SMA antenna port, iFeatures support via key plug, IEEE 802.11a/b/g/h/n, 2.4/5GHz, gross data rate 300 Mbit/s, 2x M12 max. 100 Mbit/s, PoE integrated 2-port switch, redundant 24 V DC, M12 A-coded IP30, -30... 65 °C, plug slot WPA2/802.11i/e, conformal coating EN 50155, observe national approvals! CERT ID: MSN-W1-M12-E2, scope of delivery: Manuals on CD-ROM, English/German; M12 sealing caps, for operation in the USA

transfer rate	
transfer rate	
<ul style="list-style-type: none"> <li>with WLAN / maximum</li> </ul>	300 Mbit/s
<ul style="list-style-type: none"> <li>for Industrial Ethernet</li> </ul>	10, 100 Mbit/s
transfer rate / for Industrial Ethernet	
<ul style="list-style-type: none"> <li>minimum</li> </ul>	10 Mbit/s
<ul style="list-style-type: none"> <li>maximum</li> </ul>	100 Mbit/s
interfaces	
number of electrical connections	
<ul style="list-style-type: none"> <li>for network components or terminal equipment</li> </ul>	2
<ul style="list-style-type: none"> <li>for power supply</li> </ul>	1
<ul style="list-style-type: none"> <li>for redundant voltage supply</li> </ul>	1
type of electrical connection	
<ul style="list-style-type: none"> <li>for network components or terminal equipment</li> </ul>	M12 interface (4-pole, D-coded), PoE
<ul style="list-style-type: none"> <li>for power supply</li> </ul>	M12 interface (4-pole, A-coded)
memory	
design of the removable storage	
<ul style="list-style-type: none"> <li>C-PLUG</li> </ul>	Yes
<ul style="list-style-type: none"> <li>KEY-PLUG</li> </ul>	Yes
interfaces / wireless	
number of radio cards / permanently installed	1
transmission mode / for multiple input multiple output (MIMO)	2x2
number of spatial streams	2
number of electrical connections / for external antenna(s)	2
type of electrical connection / for external antenna(s)	R-SMA (socket)
product feature / external antenna can be mounted directly on device	Yes
supply voltage, current consumption, power loss	
type of voltage / of the supply voltage	DC
supply voltage	
<ul style="list-style-type: none"> <li>from Power-over-Ethernet according to IEEE802.3af for type 1 and IEEE802.3af</li> </ul>	48 V
consumed current	
<ul style="list-style-type: none"> <li>at DC / at 24 V / typical</li> </ul>	0.25 A
power loss [W]	
<ul style="list-style-type: none"> <li>at DC / at 24 V / typical</li> </ul>	6 W
<ul style="list-style-type: none"> <li>with Power-over-Ethernet according to IEEE802.3af for type 1 and IEEE802.3af / typical</li> </ul>	6 W
ambient conditions	
ambient temperature	

<ul style="list-style-type: none"> <li>during operation</li> <li>during storage</li> <li>during transport</li> </ul>	<p>-30 ... +65 °C</p> <p>-40 ... +85 °C</p> <p>-40 ... +85 °C</p>
relative humidity / at 25 °C / without condensation / during operation / maximum	100 %
ambient condition / for operation	When used under hazardous conditions (Zone 2), the SCALANCE W774-1 M12 EEC product must be installed in an enclosure. To comply with EN 50021, this enclosure must meet the requirements of at least IP 54 in compliance with EN 60529.
protection class IP	IP30
<b>design, dimensions and weights</b>	
width	26 mm
height	156 mm
depth	127 mm
width / of the enclosure / without antenna	26 mm
height / of the enclosure / without antenna	147 mm
depth / of the enclosure / without antenna	127 mm
net weight	0.52 kg
product feature / conformal coating	Yes
fastening method	wall mounting only if flat mounted
<ul style="list-style-type: none"> <li>S7-300 rail mounting</li> <li>S7-1500 rail mounting</li> <li>35 mm top hat DIN rail mounting</li> <li>wall mounting</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
<b>radio frequencies</b>	
operating frequency	
<ul style="list-style-type: none"> <li>for WLAN in 2.4 GHz frequency band</li> <li>for WLAN in 5 GHz frequency band</li> </ul>	<p>2.41 ... 2.48 GHz; depending on the country approvals</p> <p>4.9 ... 5.8 GHz; depending on the country approvals</p>
<b>product features, product functions, product components / general</b>	
product function / Access Point Mode	Yes
product function / client Mode	Yes
number of SSIDs	4
product function	
<ul style="list-style-type: none"> <li>iPCF Access Point</li> <li>iPCF client</li> <li>iPCF-MC Access Point</li> <li>iPCF-MC client</li> </ul>	<p>Yes; Only in combination with the 'KEY-PLUG W780 iFeatures'</p> <p>Yes; Only in combination with the 'KEY-PLUG W740 iFeatures'</p> <p>No</p> <p>Yes; Only in combination with the 'KEY-PLUG W740 iFeatures'</p>
number of iPCF-capable radio modules	1
product function / iREF	Yes; Only in combination with the 'KEY-PLUG W780 iFeatures' or 'KEY-PLUG W740 iFeatures'
number of iREF-capable radio modules	1
product function / iPRP	Yes; In combination with the 'KEY-PLUG W780 iFeatures' only
<b>product functions / management, configuration, engineering</b>	
number of manageable IP addresses / in client	8
product function	
<ul style="list-style-type: none"> <li>CLI</li> <li>web-based management</li> <li>MIB support</li> <li>TRAPs via email</li> <li>configuration with STEP 7</li> <li>configuration with STEP 7 in the TIA Portal</li> <li>operation with IWLAN controller</li> <li>operation with Enterasys WLAN controller</li> <li>forced roaming on IP down with IWLAN</li> <li>forced roaming on link down with IWLAN</li> <li>WDS</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>No</p> <p>No</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
protocol / is supported	
<ul style="list-style-type: none"> <li>Address Resolution Protocol (ARP)</li> <li>ICMP</li> <li>Telnet</li> <li>HTTP</li> <li>HTTPS</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>

<ul style="list-style-type: none"> <li>• TFTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DCP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• LLDP</li> </ul>	Yes
identification & maintenance function	
<ul style="list-style-type: none"> <li>• I&amp;M0 - device-specific information</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• I&amp;M1 - higher level designation/location designation</li> </ul>	Yes
product function / is supported / identification link	Yes; acc. to IEC 61406-1:2022
<b>product functions / diagnostics</b>	
product function	
<ul style="list-style-type: none"> <li>• PROFINET IO diagnosis</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• link check</li> </ul>	No
<ul style="list-style-type: none"> <li>• connection monitoring IP-Alive</li> </ul>	No
<ul style="list-style-type: none"> <li>• localization via Aeroscout</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SysLog</li> </ul>	Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>• SNMP v1</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v2</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v3</li> </ul>	Yes
<b>product functions / VLAN</b>	
product function	
<ul style="list-style-type: none"> <li>• function VLAN with IWLAN</li> </ul>	Yes
<b>product functions / DHCP</b>	
product function	
<ul style="list-style-type: none"> <li>• DHCP client</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DHCP server</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DHCP Option 82</li> </ul>	Yes
<b>product functions / redundancy</b>	
protocol / is supported	
<ul style="list-style-type: none"> <li>• STP/RSTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• MSTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• RSTP</li> </ul>	Yes
<b>product functions / security</b>	
product function	
<ul style="list-style-type: none"> <li>• ACL - MAC-based</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• management security, ACL-IP based</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.1x (radius)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• NAT/NAPT</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• access protection according to IEEE802.11i</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• WPA/WPA2</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• TKIP/AES</li> </ul>	Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>• SSH</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• RADIUS</li> </ul>	Yes
<b>product functions / time</b>	
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
<ul style="list-style-type: none"> <li>• SIMATIC time synchronization (SIMATIC Time)</li> </ul>	Yes
<b>standards, specifications, approvals</b>	
standard	
<ul style="list-style-type: none"> <li>• for FM</li> </ul>	FM 3611: Class I, Division 2, Groups A,B,C,D, T4 / Class 1, Zone 2, Group IIC, T4, FM16US0205X
<ul style="list-style-type: none"> <li>• for safety / from CSA and UL</li> </ul>	UL 60950-1 E115352, CSA C22.2 No. 60950-1
certificate of suitability	
<ul style="list-style-type: none"> <li>• EC Declaration of Conformity</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• CE marking</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• C-Tick</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• E1 approval</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• railway application in accordance with EN 50155</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• railway application in accordance with EN 50121-4</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• fire protection in accordance with EN 45545-2</li> </ul>	Yes

<ul style="list-style-type: none"> <li>• NEMA TS2</li> <li>• IEC 61375</li> <li>• IEC 61850-3</li> <li>• NEMA4X</li> <li>• Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af</li> <li>• Power-over-Ethernet according to IEEE802.3at for type 2</li> </ul>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>Yes</p> <p>Yes</p>
<p>standard for wireless communication</p> <ul style="list-style-type: none"> <li>• IEEE 802.11a</li> <li>• IEEE 802.11b</li> <li>• IEEE 802.11e</li> <li>• IEEE 802.11g</li> <li>• IEEE 802.11h</li> <li>• IEEE 802.11i</li> <li>• IEEE 802.11n</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
<p>wireless approval</p>	<p>You will find the current list of countries at: <a href="http://www.siemens.de/funkzulassungen">www.siemens.de/funkzulassungen</a></p>
<p>reference code</p> <ul style="list-style-type: none"> <li>• according to IEC 81346-2:2019</li> </ul>	<p>KFE</p>
<p><b>standards, specifications, approvals / marine classification</b></p>	
<p>Marine classification association</p> <ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> <li>• French marine classification society (BV)</li> <li>• DNV GL</li> <li>• Korean Register of Shipping (KRS)</li> <li>• Lloyds Register of Shipping (LRS)</li> <li>• Nippon Kaiji Kyokai (NK)</li> <li>• Polski Rejestr Statkow (PRS)</li> <li>• Royal Institution of Naval Architects (RINA)</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
<p><b>standards, specifications, approvals / hazardous environments</b></p>	
<p>standard / for hazardous zone</p> <ul style="list-style-type: none"> <li>• from CSA and UL</li> </ul>	<p>EN 60079-15:2005, EN 60079-0:2006, II 3 G Ex nA II T4 KEMA 07 ATEX 0145X</p> <p>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</p>
<p>certificate of suitability / CCC / for hazardous zone according to GB standard</p> <ul style="list-style-type: none"> <li>• as marking</li> </ul>	<p>Yes; GB3836.1, GB3836.8</p> <p>Ex nA IIC T4 Gc</p>
<p><b>standards, specifications, approvals / Environmental Product Declaration</b></p>	
<p>Environmental Product Declaration</p>	<p>Yes</p>
<p>global warming potential [CO2 eq]</p> <ul style="list-style-type: none"> <li>• total</li> <li>• during manufacturing</li> <li>• during operation</li> <li>• after end of life</li> </ul>	<p>195.92 kg</p> <p>29.7 kg</p> <p>166.06 kg</p> <p>0.16 kg</p>
<p><b>further information / internet links</b></p>	
<p>internet link</p> <ul style="list-style-type: none"> <li>• to website: Selection guide for cables and connectors</li> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to web page: WLAN country approval</li> <li>• to the website: IWLAN</li> <li>• to website: Industrial communication</li> <li>• to web page: SiePortal</li> <li>• to website: Image database</li> <li>• to website: CAx-Download-Manager</li> <li>• to website: Industry Online Support</li> </ul>	<p><a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a></p> <p><a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a></p> <p><a href="https://www.siemens.com/wireless-approvals">https://www.siemens.com/wireless-approvals</a></p> <p><a href="https://www.siemens.com/iwlan">https://www.siemens.com/iwlan</a></p> <p><a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a></p> <p><a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a></p> <p><a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a></p> <p><a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a></p> <p><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a></p>
<p><b>security information</b></p>	
<p>security information</p>	<p>Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is</p>

necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit [www.siemens.com/cybersecurity-industry](http://www.siemens.com/cybersecurity-industry). Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under <https://www.siemens.com/cert>. (V4.7)

**Approvals / Certificates**

<b>General Product Approval</b>	<b>For use in hazardous locations</b>
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[Declaration of Conformity](#)



[EM](#)

<b>For use in hazardous locations</b>	<b>Radio Equipment Type Approval Certificate</b>	<b>Marine / Shipping</b>
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[CCC-Ex](#)

[Miscellaneous](#)



<b>Marine / Shipping</b>	<b>Railway</b>	<b>Environment</b>
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[NK / Nippon Kaiji Kyokai](#)



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