

# ALF-Devices

## Industrial WLAN-Router High-speed datarate up to 150Mbit/s Integrated firewall



### Operating-modes of the ALF-device and their function:

Operating-mode	ALF	ALF-UA
AP-Router	<ul style="list-style-type: none"><li>Build a WiFi-network</li><li>LAN-port and WiFi are in the same subnet all together communicating devices must be in the same subnet</li><li>The WAN-port must be another subnet, it will be routed here</li></ul>	<ul style="list-style-type: none"><li>Build a WiFi-network</li><li>LAN-port and WiFi are in the same subnet all together communicating devices must be in the same subnet</li><li>The WAN-port must be another subnet, it will be routed here</li></ul>
AP-Bridge	<ul style="list-style-type: none"><li>Build a WiFi-network</li><li>LAN-port and WiFi are in the same subnet all together communicating devices must be in the same subnet</li><li>The WAN-port is without function</li></ul>	<ul style="list-style-type: none"><li>Build a WiFi-network</li><li>LAN-port, WAN-port and WiFi are in the same subnet all together communicating devices must be in the same subnet</li></ul>
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### Applications

#### 24V-supply from the PLC



You want to install your ALF directly in the switch-board and would like to use the 24V of the existing S7-PLC? No problem, connect the open ended side of the Kabelbrücke to the 24V port on your ALF and the bus-side on the MPI- or Profibus of this PLC. Even the ALF is supplied above this PLC.

#### Operation as an access point



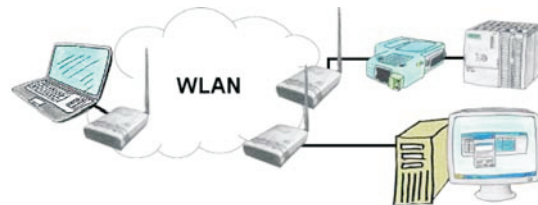
You are on site your plant and should move round the machine and simultaneously control or monitor. No problem, you parametrize ALF as an access-point and connect your S7-LAN or other network-client to him, connect your PC with him and you are online on the PLC.

### Operation as a WLAN-client



You are on site your plant and should move round the machine and simultaneously control or monitor. WLAN is reachable, but your PC is not able to provide WLAN. No problem, you parametrize ALF as a client and connect him to the PC and join the reachable WLAN and you are online on the PLC.

### Operation as bridge



You have two or more clients which should communicate together without LAN-cable-connection? No problem, you connect a "Access-Point" configured ALF to this device and to the other device a "Client" configured ALF. Then connect the "Client" with the "Access-Point" and the device are able to communicate together.

### No direct connected LAN-client required



You have some LAN-clients and want to communicate via WLAN with them? No problem, you connect ALF to a switch and you are able to communicate with all this clients. You don't need a direct connect client.

### Easiest configuration by included webserver



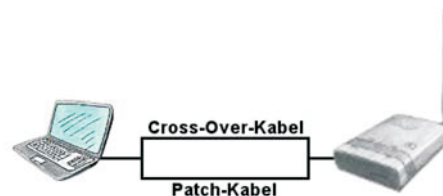
To configure ALF you don't need additional driver or special cables, you connect your PC via LAN or WLAN with ALF and over the integrated webserver you can configure the needed function.

### Integrated dhcp-server



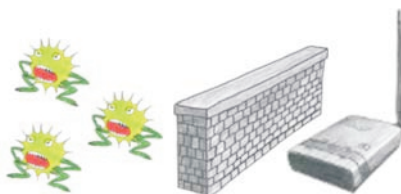
You use your PC in your company network with DHCP, so you don't have to care the everlasting setting of the ip-address. No problem, ALF also can be configured as a DHCP-server and assigns you accessing to the device via LAN or WLAN an ip-address from a predefined address range.

### Autonegotiation on RJ-45



You need ALF to connect to a reachable WLAN, but only have a patch-cable? No problem, ALF provides "autonegotiation" and this means that he recognises a connected cable (patch-cable or cross-over-cable) and surround the pinning according to the cable, so a communication is possible.

### Integrated firewall



You use ALF as a WLAN-router to connect your PC with the internet. No Problem, this Sie nutzen ALF als WLAN-Router um Ihren PC ins Internet zu bringen. Kein Problem, ALF masters this task without problems. Its built-in firewall ensures that no hacker from outside changes your configuration or moves in your network.

ALF

Industrial WLAN-Router  
High-speed datarate up to 150Mbit/s  
Integrated firewall



- For S7-1200, S5-LAN++, S7-LAN and Ethernet-CPs usable
- Connecting a network subscriber (also over switch) as Client to an Access Point
- Can be also driven as an Access-Point
- No configuration of AdHoc-mode on the notebook needed
- Simply configuration with included english web-server
- Auto-negotiation of the RJ45-Ethernet jack
- Integrated DHCP-server
- Provides passive PoE (12V DC)
- High data-transfer; providing data rates of up to 150Mbps; is compatible with legacy 802.11b/g equipment
- Integrated firewall with SPI to protect the internal host from hacker attacks
- Wireless security is comprehensive and includes WPA/WPA2 PSK
- Provides helpful features like Rich WDS, Dual SSIDs, Static Routing, QoS and more
- Suitable for wall-mounting
- Power supply 24V DC over spring clip

Operating-modes of the ALF-device and their function:

Operating-mode	ALF	ALF-UA
AP-Router	<ul style="list-style-type: none"><li>• Build a WiFi-network</li><li>• LAN-port and WiFi are in the same subnet all together communicating devices must be in the same subnet</li><li>• The WAN-port must be another subnet, it will be routed here</li></ul>	<ul style="list-style-type: none"><li>• Build a WiFi-network</li><li>• LAN-port and WiFi are in the same subnet all together communicating devices must be in the same subnet</li><li>• The WAN-port must be another subnet, it will be routed here</li></ul>
AP-Bridge	<ul style="list-style-type: none"><li>• Build a WiFi-network</li><li>• LAN-port and WiFi are in the same subnet all together communicating devices must be in the same subnet</li><li>• The WAN-port is without function</li></ul>	<ul style="list-style-type: none"><li>• Build a WiFi-network</li><li>• LAN-port, WAN-port and WiFi are in the same subnet all together communicating devices must be in the same subnet</li></ul>
Client-Router	<ul style="list-style-type: none"><li>• Connects to existing WiFi-network</li><li>• LAN-port and WiFi must be in the same SubNet all together communicating devices must be in the same subnet</li><li>• The WAN-port must be another subnet, it will be routed here</li></ul>	<ul style="list-style-type: none"><li>• Connects to existing WiFi-network</li><li>• LAN-port and WiFi must be in the same SubNet all together communicating devices must be in the same subnet</li><li>• The WAN-port must be another subnet, it will be routed here</li></ul>
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Supply voltage:	24V/DC +/- 20%
Power consumption:	1,2 watt
Display:	status-LEDs
Handling/Configuration:	with integrated webserver
Interfaces:	<b>to antenna:</b> RP-SMA-female connector (reverse polarity) with 5 dBi <b>to the PLC:</b> 10/100BaseTX RJ45-ethernetplug <b>to the PD/PC:</b> WLAN connection (802.11 b/g/n)
Security	WEP 64/128bit WPA (TKIP with IEEE 802.1x) WPA2 (AES with IEEE 802.1x) WPA Mixed
Operating temperature:	-20 - 60°C
Case:	plastic case
Dimensions:	93 x 70 x 26 mm
Scope of delivery:	ALF WIFI-stub-antenna Power connector 2pins small
Commercial data:	
EAN number:	4260363240550
HS-code:	85176200
Weight:	0.2500 kg

## Applications



You don't want to power ALF with 24V DC because you have in your network PoE "Power over Ethernet" in use. No problem, ALS provides passive PoE, this means he can be powered with the not used cables of the lan-cable with 12V DC. You don't need additional the 24V DC.

**Attention:** Don't connect a PoE-cable to a lan-client which don't provides PoE! The device could be damaged!

article:		
Art. ID.	name	price
9352-ALF	<b>ALF</b> Industrial WLAN-Router Rev. A	249,- €

variants:		
Art. ID.	name	price
9352-ALF-UA	<b>ALF-UA high-speed WIFI-Router for Din-Rail-mounting</b> Industrial WIFI-Router for Unified Access Integrated USB-port Basic-platform, functionality with software-options expandable One-click mounting	299,- €

accessories:		
Art. ID.	name	price
9350-9-CHP-24V-OUT	<b>CheapConn Busconnector with 24V-output</b> Comfortable power supply for ALF, TONI and WLAN-Klemme	69,- €
9352-24	<b>Power connector 2pins small</b> cable coupling by screw-connector (small)	3,- €
9352-ALF-ANT	<b>Magnetic base antenna</b> for ALF cable length: 1,5m	78,- €
9352-ALF-ANT-AUßEN	<b>Stationary antenna for outdoor fastening</b> for ALF, cable length: 1m incl. holder for mast-mount and cable	89,- €
9352-ALF-ANT-WAND	Stationary antenna for <b>wall</b> fastening for ALF, cable length: 2,5m incl. wall holder	79,- €
9352-ALF-KABEL	<b>Connection-cable for beam/sector antenna</b> cable length: 3m	49,- €
9352-ALF-RICHT-ANT	<b>Beam antenna for ALF</b> Beam antenna with 20dBi power gain for classic radio link connection cable optional	119,- €
9352-ALF-SEKT-ANT	<b>Sector antenna for ALF</b> Sector antenna with 17dBi power gain and bundled radiation. Connection cable optional	179,- €
9391-HH	<b>DIN-rail-holder for MPI/PPI</b> quick and easy assembling on the cap rail	10,- €
9391-USB	<b>USB-powercable for 24V DC, max. 3W</b> USB-plug type A to 2 open braids 24V DC, maximum current: 125mA (for PC 100mA) length: 5m	89,- €
9391.1	<b>24V DC power-supply unit 625mA</b> Primary 110V - 240 VAC Euro+USA-plug	39,- €
9636-TCPIP	<b>Patch-cable 3m, Cat5+, shielded</b> RJ45 plug <=> RJ45 plug, 1:1	10,- €
9636-TCPIP:1M	Patch-cable <b>1m, Cat5e</b> , shielded RJ45 plug <=> RJ45 plug, 1:1	14,- €

# ALF-UA



## Industrial WLAN-Router High-speed datarate up to 150Mbit/s Integrated firewall Din-rail-mounting

- Simple bilingual (E + G) web-interface
- For S5-LAN++, S7-LAN and PROFINET usable
- Easy and fast parameterization
- USB-port for software-extensions
- Connecting a network subscriber (also over switch) as Client to an Access Point
- Can be also driven as an Access-Point
- No configuration of AdHoc-mode on the notebook needed
- Configuration with included multilingual web-server
- Auto-negotiation of the RJ45-Ethernet jack
- Integrated DHCP-server
- High data-transfer; providing data rates of up to 150Mbps; is compatible with legacy 802.11b/g equipment
- Integrated firewall with SPI to protect the internal host from hacker attacks
- Wireless security is comprehensive and includes WEP/WPA/WPA2 PSK
- Provides helpful features like Rich WDS, Dual SSIDs, Static Routing, QoS and more
- For Din-Rail-mounting
- Power supply 24V DC over spring-contact

Start-Window:

The screenshot shows the web interface of the ALF-UA router. On the left is a sidebar with icons for STATUS, Overview, and configuration. The main area is titled 'Overview' and contains three panels: 'Device', 'WAN / Internet', and 'LAN / Local Network'. The 'Device' panel lists system information, while the other two show network status and IP addresses.

Device	
Device Name:	ALF-UA
Serialnumber:	10337517
Version:	FW: 0.6 OS: 0.6
Network Mode:	AP Router
CPU Load Averages:	69.84%
Memory Usage:	25976 KB / 61440 KB

WAN / Internet	
IP Address:	-
Subnet Mask:	-

LAN / Local Network	
IP Address:	192.168.2.1
Subnet Mask:	255.255.255.0

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NETWORK

AP Router

AP Bridge

Client Router

Client Bridge

WAN / Internet

Connection Type

Static DHCP PPPoE

Host Name: ALF-UA

DNS Server

Default Open DNS Google DNS Custom

Routing to LAN:

LAN / Local Network

Router IP: 192.168.2.1

Subnet Mask: 255.255.255.0

Spanning Tree:

DHCP Settings

Disabled DHCP Server

Local Domain Name: (optional)

Start IP: 192.168.2.100

End IP: 192.168.2.200

Gültigkeitsdauer: 12 Hours

WLAN Access Point

Enabled:

Access Point SSID: ALF-UA

Broadcast SSID:

Encryption Settings

None WPA2 PSK WPA PSK WEP WPA Radius WPA2 Radius

Routing to WAN:

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Version: 0.6

Simultaneous parameterization of all operating-modes possible, there is always only one of them "active" switched.

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<b>Security</b>	WEP 64/128bit WPA (TKIP with IEEE 802.1x) WPA2 (AES with IEEE 802.1x) WPA Mixed
<b>Operating temperature:</b>	0 - 55°C
<b>Case:</b>	plastic clamping-case
<b>Dimensions:</b>	114 x 100 x 22.3 mm
<b>Scope of delivery:</b>	ALF-UA WiFi-stub-antenna
<b>Commercial data:</b>	
<b>EAN number:</b>	4260363247221
<b>HS-code:</b>	85176200
<b>Weight:</b>	0.1700 kg

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