

Installer manual

EMC.W

Wi-Fi connecting module

ECR.W

Description

Wi-Fi module for connecting .W series control panels and receivers to Android and iOS smartphones and tablets via app, through remote connection via the By-gate app for end users and remote and local connection via the By-gate Pro app for installers.

Connection

Connect the module to the CNX1 connector of the .W series electronics.

The EMC.W module can also be inserted and removed to powered boards without any damage, but power fluctuations could cause the board on which the module is inserted to be rebooted in the event of hot connections.

DIP functions

Dip	Function	Status	Description
DIP 1	Module reset	OFF	Module in normal operation
		ON	<p>Module reset, resets the default settings on the module (the administrator username and password are stored on the MEM.W memory board). To reset the default settings move the Dip to ON and reboot the board to which the module is connected. As soon as the DL1 LED starts to blink green, turn the Dip to OFF.</p> <p>Settings reset: Mode: Access point Network name (SSID): VIMAR_XXXXXX Password: 12345678 Channel: 11 Security: WPA-PSK IP address: 192.168.1.1 Netmask IP: 255.255.255.0 DHCP: On (selectable only in Station mode) DHCP range: 192.168.1.2</p> <p>Resetting the default settings of the module is</p> <ul style="list-style-type: none"> - Access point, if the password for the network generated by the module has been lost (restore default password 12345678) - client, to reconfigure the settings of the network to which the module must be connected or if the module sharing password has been lost (administrator password).
DIP 2	No function		
DIP 3	Reserved		Always leave OFF
DIP 4	FW updates		Used for updating firmware (refer to firmware update instructions)

Module settings

The module does not require manual configuration because:

- Local operation:

The module is preconfigured with factory settings (operating as an Access Point that generates a Wi-Fi network) in order to operate through direct local connection with a smartphone or tablet.

- Remote operation:

To connect the module remotely via the Cloud (both for end users and for installers), the module still needs to be set up as an Access Point (factory setting) and then enrolled to the automations Cloud by the gateway administrator, via the By-gate App. The App will automatically configure the module to connect to the existing Wi-Fi network based on the connection settings entered by the gateway administrator.

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Alternatively, you can access the module settings page directly via the Web using any browser, by typing the module's IP address into the address bar:

- **in the case of local operation** (default setting) with the module operating as an Access Point, simply connect to the network generated by the module and enter the IP address 192.168.1.1.
- **in the case of remote operation** with the module operating as a client Station, you need to connect to the same Wi-Fi network to which the module is connected and enter its IP address within the network (various third-party tools can be used to identify devices connected over the local network and their assigned IP addresses, e.g. FING).

Once the module is connected, the status screen will be displayed.

Status screen in **Access point** mode:



Current configuration:

Mode: Access Point
 SSID: VIMAR_4A53E1
 MAC Address: 00-0B-57-4A-53-E1
 Channel: 11
 Security: WPA-PSK
 FW version: 3.04

Status screen in **Station** mode:



Current configuration:

Mode: Station
 Router SSID: FreeInternet
 MAC Address: 00-0B-57-4A-53-E1
 IP address: 172.20.50.52
 IP netmask: 255.255.255.0
 IP gateway: 172.20.50.1
 FW version: 3.04

Parameter	Description
Mode	<p>Access Point: The module acts as HTTP and TCP server. It is possible to connect directly to the module, e.g. via a Smartphone. The module is not part of a previously existing network.</p> <p>Station: The module acts as HTTP and TCP client. The module connects to an existing network and, according to the modem/router configuration, can be seen via the Internet.</p>
SSID (Router)	<p>Access point: Name of Wi-Fi network generated by the module.</p> <p>Station: Wi-Fi network the module is connected to</p>
MAC Address	<p>Access point: Module Mac address.</p> <p>Station: Module Mac address.</p>
Channel	Access point: Communication channel used by the module in access point mode
Security	Access point: Security used by the module in access point mode for Wi-Fi communication
IP address	Station: The module's IP address
IP netmask	Station: The module's subnet mask
IP gateway	Station: IP address of the LAN gateway to which the module is connected
FW version	The module's firmware version

Access Point Screen

**Access point configuration:**

SSID:
 Channel:
 Security:
 Password: (8-63 characters)
 IP address: 192.168.1.1
 IP netmask: 255.255.255.0
 DHCP:
 DHCP range: 192.168.1.2

Parameter	Values	Description
SSID	Free choice	Name of Wi-Fi network generated by the module. For recognition issues we recommend you leave the default name.
Channel	1 to 11	Communication channel used (default 11).
Security	OPEN:	No security (anyone may connect to the network).
	WPA-PSK	WPA-PSK protection (default setting).
Password	Free choice	Password required to access the Wi-Fi network generated by the module. The password must contain letters and numbers (no special characters) and must have between 8 and 63 characters.
IP address	Not modifiable	Module IP address (default password: 12345678).
IP netmask	Not modifiable	Method used to define the address range of a host in an IP subnet.
DHCP	<input checked="" type="checkbox"/>	The Wi-Fi module acts as DHCP server (setting not modifiable), the module automatically assigns the IP addresses to the connecting devices.
DHCP range	Not modifiable	Range of IP addresses assigned by the module when configured as DHCP server. Not modifiable as the module accepts only one connection at a time.

Note:

The Wi-Fi module accepts only one connection at a time. If you try to connect with more than one device, the module will refuse the connection of the second device attempting to connect.

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Station (client) screen

If the module is installed on an electronic unit that has already been enrolled in the Cloud, in order to access the module you need to know the password of the device set by the administrator during enrolment (during the "Add gateway as administrator" on the By-gate App):



User Login

Login status **not authenticated**

Password



Station configuration:

Available networks:

▾

SSID:

Password:

DHCP:

Once logged in, you will be able to access the settings. Click on the "Station" tab to display the module's settings for operation as a client:

Parameter	Values	Description
Available networks	Multiple choice	All the visible Wi-Fi networks detected by the module at startup are displayed here. The selected network is the Wi-Fi network that the module attempts to connect to.
SSID	Free choice	This is the name of the Wi-Fi network that the module attempts to connect to. This field can be edited to allow the module to connect to private networks.
Password	Free choice	This is the password of the selected Wi-Fi network. If the selected Wi-Fi network is not password-protected, leave this field blank.
DHCP	<input checked="" type="checkbox"/>	The module receives the IP address from the DHCP server on the local network (default).
	<input type="checkbox"/>	Uncheck so the module's IP settings are fixed and assigned by the user. Selecting this displays the following settings: - IP address - netmask - IP gateway
IP address	Free choice	IP address assigned to the module if DHCP is deactivated.
IP netmask	Free choice	Subnet mask.
IP gateway	Free choice	IP address of the network gateway to which the module is connected.

Cloud Settings

This tab shows the settings that the module uses to connect to the Automations Cloud.

Do not change these default settings, otherwise the module will not be able to connect to the Cloud.


[Status](#) [Access Point](#) [Station](#) Cloud

Cloud configuration:

HOST domain:
HOST IP:
HOST port:

- use HOST domain
- use HOST IP

- use TCP
- use TLS

ECR.W**DL1 LED signalling**

LED colour	Module mode	LED status	Blink cycle	LED meaning
Green	Access point	On steady	-	Start-up as Access Point
		Blinking	SINGLE blink	Ready for connection via App or web
			DOUBLE blink	Connected to App
			TRIPLE blink	Stop or no Access Point start-up
			QUADRUPLE blink	No Access Point start-up
Red	Station	On steady	-	Start-up as Station
		Blinking	SINGLE blink	Connected to the Wi-Fi network, but not connected to the Automations Cloud
			DOUBLE blink	Connected to the Wi-Fi network and connected to the Automations Cloud
			TRIPLE blink	Wi-Fi network connection lost (e.g. weak router signal or router switched off). Incorrect Wi-Fi connection parameters (e.g. router password edited).
			QUADRUPLE blink	Incorrect Wi-Fi password during enrolment with Cloud.

By-gate and By-gate Pro

For the remote control, configuration and diagnostics of control panels for ELVOX automations in the .W series, the By-gate and By-Gate Pro Apps for Android™ and iOS can be downloaded from Google Play™ Store and App Store®

Conformity to Standards

Vimar SpA declares that the reference radio equipment type EMC.W complies with Directive 2014/53/EU. The full text of the EU declaration of conformity is on the product sheet available at the following Internet address: www.vimar.com.

REACH (EU) Regulation no. 1907/2006 – Art.33.

The product may contain traces of lead.



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