

IGW/922-W

Wireless VPN Remote Access Gateway



- ✓ **WiFi Transceiver Module**
- ✓ **OpenVPN Client and Server**
- ✓ **Firewall with NAT Support**
- ✓ **Pre-installed Demo Applications**
- ✓ **Free Programmable**
- ✓ **12 – 24 VDC Power Supply**
- ✓ **DIN-rail Mounting**

Description

The Remote Access Gateway IGW/922-W was developed to integrate any Ethernet-based devices, subsystems and automation components in control cabinets or even complete subnetworks very easy into a **VPN** (Virtual Private Network).

This allows a highly secured remote access to these systems and devices via Internet. Through the separation of the two Ethernet interfaces, the protected device or LAN is completely isolated from external access.

Safety & Security

To ensure a high level of safety and security the IGW/922-W offers many integrated security functions like **OpenVPN**, **OpenSSL** (incl. SSL/TLS), **Firewall with NAT support** as well as **SSH**, which protect a local automation Ethernet network from unauthorized remote access.

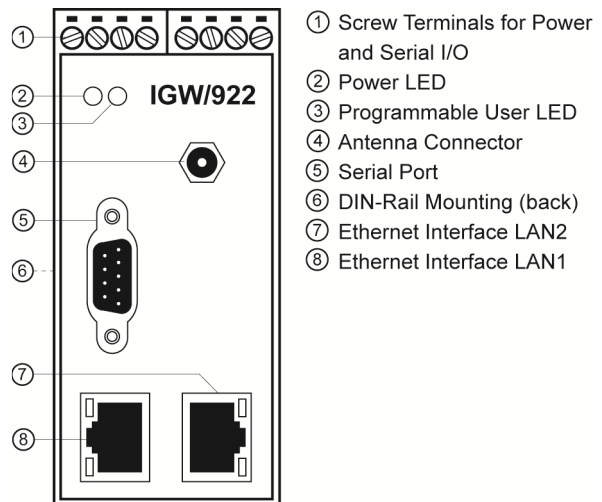
Beside the HTTP access it is possible to protect any TCP server as well as the Telnet and FTP access of automation components with the IGW/922-W. In this case the external access is only possible via SSH or VPN tunnel. The implementation of the local servers is done by the IGW/922-W.

To increase the security of the system, SSV offers the **security dongle SEC/1** as optional accessory. The SEC/1 protects the access to the configuration interface of the IGW/922-W with a challenge-response authentication.

Demo Applications

The IGW/922-W offers some **Python** script demos to show the possibilities of the system.

Overview



Basic hardware interfaces of the IGW/922-W

The **data logger demo** collects weather data from the internet and saves it in a preconfigured SQLite database on the internal 2 GB microSD card.

The **plot.ly demo** creates a graph out of the collected weather data with the help of the online framework plotly (<https://plot.ly>).

The **WebApp demo** shows how the WiFi module's serial tunnel can be used to create a mobile web application for smartphones and tablets.

Specifications

Processor	
Manufacturer / Type	Atmel AT91RM9200 32-bit ARM9-MCU
Clock speed	180 MHz
Memory	
RAM	64 MB SDRAM
Flash	32 MB NOR memory
Storage media	1x internal microSD card holder with 4 GB card
Interfaces	
Ethernet	2x 10/100 Mbps (RJ45)
Serial I/Os	1x RS232 serial port (Sub-D) 1x RS232/RS485 serial port (screw terminal)
Alarm output	1x Semiconductor relay output (max. 30 VDC, 500 mA)
Special Functions	
RTC	1x Real Time Clock with internal battery-backup
Watchdog	1x Timer watchdog (hardware-based, software-configurable) 1x Power supervisor (hardware-based)
Wireless Module	
WiFi standards	IEEE 802.11 b/g/n (2.4 GHz)
Network protocols	TCP/IP, UDP/IP
Operating modes	Simultaneous Soft AP Client mode with DHCP server
Security	IEEE 802.11i support with WPA/WPA2 256-bit AES encryption
Management	Web server with landing page and WebUI
Software	
Operating system	Embedded Linux kernel version 2.6
Web server	lighttpd with SSL support
Programming environment	C, C++, Unix shell, Python 2.7 (optional)
IP address assignment	Static, DHCP, AutoIP, UPnP, SSV IP-by-Net
Protocol stack	ARP, ICMP, IP, TCP, UDP, Telnet, FTP, HTTP, TFTP
Optional protocols	Modbus TCP/RTU (server + client), M-Bus, ACCON AGLink
Security protocols	SSL/SSH, HTTPS, OpenVPN, IPsec
TCP servers	Telnet, FTP, TFTP, HTTP, SNMPv2/v3 (optional)
Firewall	netfilter + iptables
Proxy functions	HTTP(S), FTP, Telnet, SSH, generic TCP port mapping
Configuration	WebUI
Miscellaneous	DynDNS support IEC 61850 protocol support (optional)
Demo applications	Data logger demo, Plot.ly demo, WebApp demo
Displays / Control Elements	
LEDs	1x Power 1x IGW start-up + VPN status (programmable) 1x LAN LED for each Ethernet interface
Electrical Characteristics	
Power supply	12 .. 24 VDC from external power supply
Power consumption	< 4 W
Mechanical Characteristics	
Protection class	IP20 industrial case for 35 mm DIN-rail mounting
Mass	< 270 g
Dimensions	112 mm x 100 mm x 45 mm
Operating temp.	0 .. 70 °C

Standards and Certifications	
EMC	CE
Environmental standards	RoHS, WEEE
Industrial standards	VHPready (Virtual Heat & Power Ready)
Security	Penetration testing and dynamic analysis: fuzzing tested by SoftScheck GmbH
Order information	
Order number	PX-87779

Scope of Delivery

- 1x VPN Remote Access Gateway IGW/922-W
- 1x WiFi magnetic base antenna with 2.5 m cable
- 1x 4 GB microSD card with preconfigured SQLite database

Startup Package (optional)

- 1x Plug-in power supply
- 1x Null modem cable
- 1x CD-ROM

Product Variants

- IGW/922
- IGW/922-G with GSM/GPRS modem
- IGW/922-U with UMTS/HSPA modem
- IGW/922-MOE with AT modem emulator

Customized variants with preinstalled configuration and/or individual case design on request.

Optional Accessories

- Security Dongle SEC/1

Similar Products

- VPN Remote Access Gateway IGW/925-W

Contact Information

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