

Product Information

## Industrial Embedded Linux Gateway: IGW/100

Security Gateway for the automation



### Description

The *IGW/100* allows the protected communication via Ethernet networks. It is designed for use in office as well as industrial environments. As standard the *IGW/100* offers bridging and firewall functions. With the optional available AMSEL distribution extensive VPN (virtual private network) and different firewall configurations are possible. In addition to its compact dimensions the *IGW/100* is perfect for industrial or mobile use and guarantees outstanding protection for smaller networks. The focus has been placed on industry automation and applications like configurable router, firewalls and point-to-point VPNs.

The *IGW/100* comes in a 168 x 116 x 26 mm metal case with passive cooling and without any mechanical drives. It offers a low power DIL/NetPC with three Ethernet LAN interfaces, one RS232 interface and a CF card interface for permanent data storage.

The *IGW/100* can be used for a wide range of applications. So it is possible to separate automation components from an office network. Furthermore single areas of a production network can be segmented via several firewall configurations. To provide a secured remote access via Internet the *IGW/100* can be used to create an IPSec based VPN (virtual private network) connection.

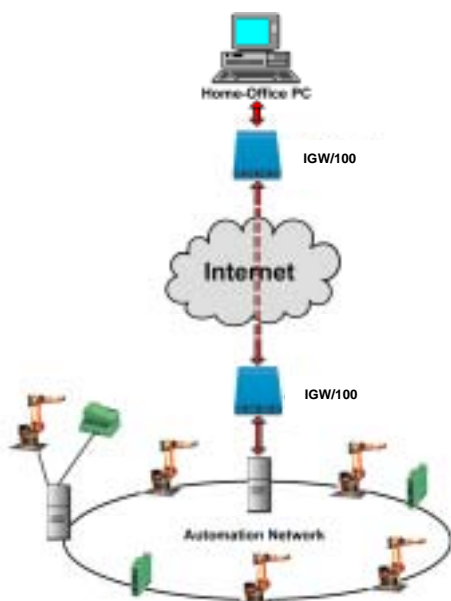


Figure 1: Remote access

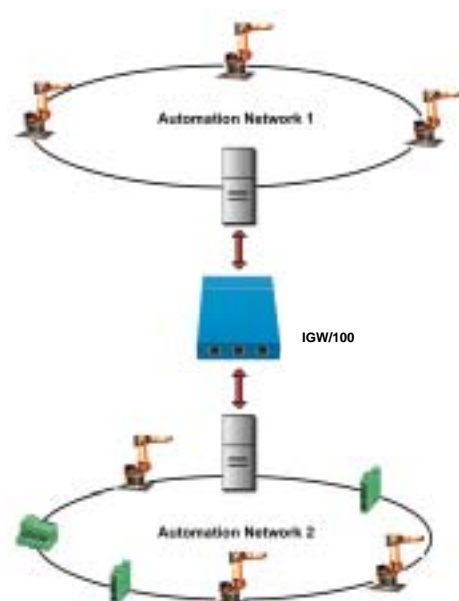


Figure 2: Network separation

## Technical Data

### Hardware

CPU	32-bit AMD Elan SC520 low power IA32 586 CPU with 133 MHz
RAM	64 MByte SDRAM
Flash	16 Mbyte

### Network Interfaces

LAN1	100/10BASE-T, automatic detection between 100Mbit/s and 10Mbps, RJ45 connector
LAN2	10BASE-T, RJ45 connector
LAN3	10BASE-T, RJ45 connector

### Further Interfaces

RS232	SUB-D, max. 115.2kbps, Signals: DCD, RxD, TxD, DTR, GND, DSR, RTS, CTS, RI
CF card interface	support for true IDE CF cards

### Other

Diagnostic LED	1 x Power, 1 x CF-Card
Power Supply	5 VDC
Protection degree	IP20
Operating temperature	0°C.. +65°C
Dimension (L x W x H)	168 x 116 x 26 mm (6.5 x 4.5 x 1 inches)
Cooling	fanless
Mounting	DIN rail, Wall, Desktop

### Management

Embedded Gateway Linux OS with Web Server, Telnet Server and FTP Server  
Boot loader  
Programmable watchdog

## Optional Security Functions (with Advanced Modular Secure Embedded Linux Distribution)

SSV Embedded Systems and .vantronix | secure systems have teamed to create a powerful 100% open source embedded security Linux for industrial firewall and VPN applications.

### Firewall

Packet filter on IP level via iptables  
Packet filter on Ethernet MAC level via ebtables and arptables  
BNF (Backus Naur Form) based configuration language  
Extensible through modular design  
Configurable firewall rules  
NAT (IP masquerading)

### VPN

Fully KAME compatible IPsec stack with IPv4 and IPv6 support  
Encryption through ultra-fast Scatterlist CryptoAPI  
AES, (3)DES and blowfish encryption  
Twofish, Serpent, Cast5/6, Blowfish and (3)DES ciphers  
SHA1/256/512, MD5 and MD4 hash-algorithms with HMAC support  
Deflate Compression support  
IPsec transport- or tunnel-mode  
Encapsulated Secure Payload (ESP)-mode  
Authentication Header (AH)-mode  
ISAKMP support  
KAME "racoon" daemon

Authentication with X509 support  
DNSSec extensions  
Secure Phase 1 authentication / key exchange  
Network to network, host to host, net to net

### **Networking**

DHCP server and client  
HTTP and HTTPS  
SMTP e-mail support  
SSH  
Integrated Ethernet Bridge (IEEE 802.1d)  
VLAN support (IEEE 802.1q)  
QoS support (IEEE 802.1p and 802.1q)  
Open SSH system library

### **Realtime Extensions**

Patent-free Adeos Nanokernel on top of Linux  
Hard realtime extensions through RTAI/Adeos \*)  
RTAI/Xenomai support, emulation layer for:  
VRTX32/VRTXsa  
pSOS+  
VxWorks  
uITRON

### **Other features**

Administration via AMSEL Command Line Interface (amCLI)  
Protected 2.4 based Kernel with security extensions

For more information, please visit us at [www.ssv-comm.de](http://www.ssv-comm.de) and [www.amselinux.com](http://www.amselinux.com)