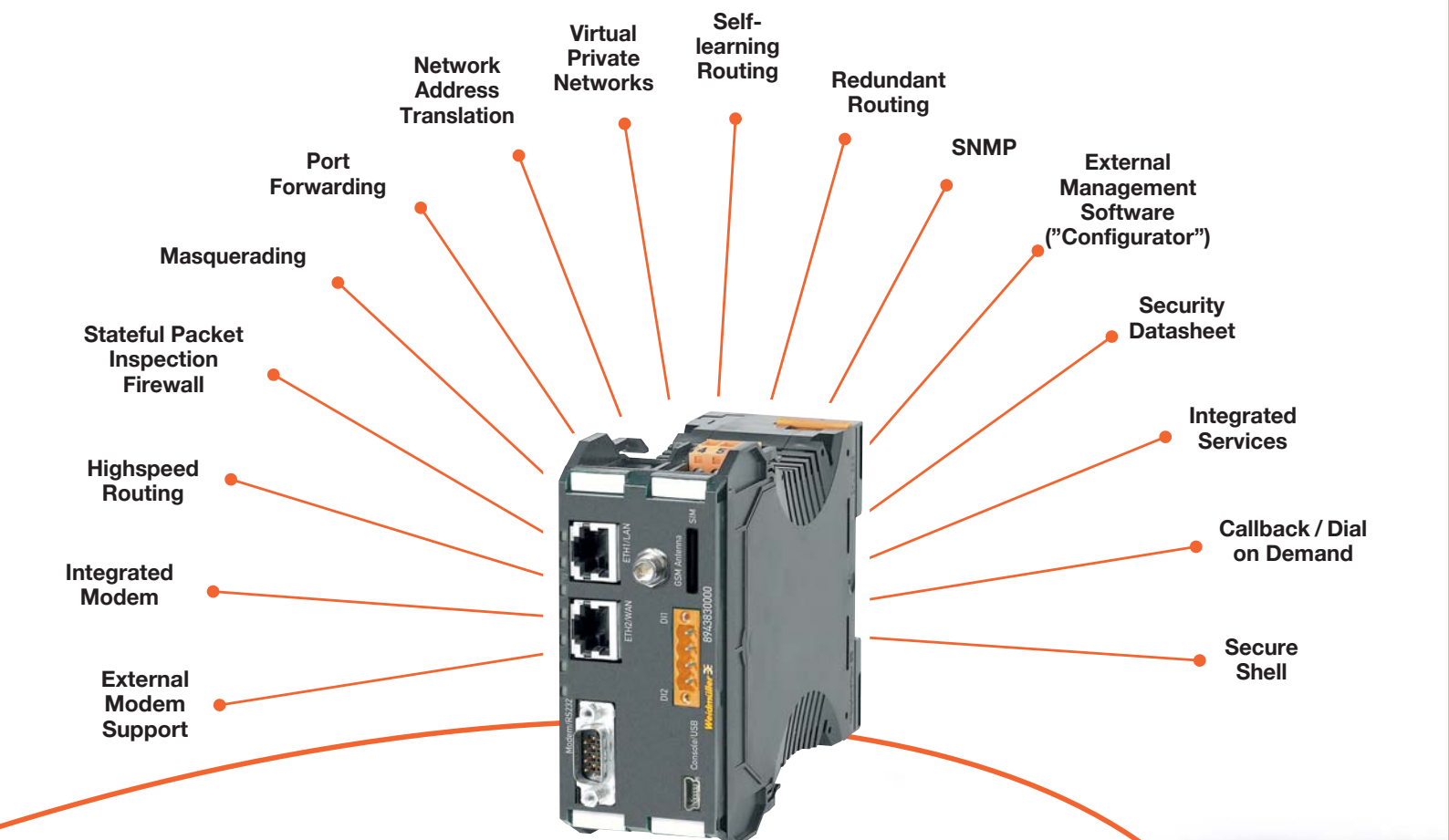


Router Technology by Weidmüller: Deciding to be on the Safe Side



www.weidmueller.com

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|--------------------|-------------|----------------|
| Argentina | Ireland | Saudi Arabia |
| Australia | Israel | Serbia |
| Austria | Italy | Singapore |
| Azerbaijan | Japan | Slovakia |
| Bahrain | Jordan | Slovenia |
| Belarus | Kazakhstan | South Africa |
| Belgium | Kuwait | South Korea |
| Bosnia-Herzegovina | Latvia | Spain |
| Brazil | Lebanon | Sweden |
| Bulgaria | Lithuania | Switzerland |
| Canada | Luxembourg | Syria |
| Chile | Macedonia | Taiwan |
| China | Malaysia | Thailand |
| Colombia | Malta | Tunisia |
| Costa Rica | Mexico | Turkey |
| Croatia | Moldova | UAE |
| Czech Republic | Montenegro | Ukraine |
| Denmark | Netherlands | United Kingdom |
| Ecuador | New Zealand | Uruguay |
| Egypt | Norway | USA |
| Estonia | Oman | Venezuela |
| Finland | Pakistan | Vietnam |
| France | Paraguay | Yemen |
| Germany | Peru | |
| Greece | Philippines | |
| Hong Kong | Poland | |
| Hungary | Portugal | |
| Iceland | Qatar | |
| India | Republic of | |
| Indonesia | Uzbekistan | |
| Iran | Romania | |
| | Russia | |

Weidmüller is the leading provider of solutions for electrical connectivity, transmission, conditioning and processing of power, signals and data in industrial environments. The company develops, produces and sells products in the field of electrical connectivity, functional electronics and communication electronics. Weidmüller's product and service portfolio is dedicated to add value to the products and thereby the business of our customers. The Weidmüller Group has a global focus with its own manufacturing plants, sales companies and representatives in over 70 countries.

We cannot guarantee that there are no mistakes in the publications or software provided by us to the customer for the purpose of making orders. We try our best to quickly correct errors in our printed media. For this purpose we list corrections, which have been identified after publishing printed media, on our web site at www.weidmueller.com. For convenience we list these corrections against product catalogue number and/or page number. This Internet-database is part of our catalogue.

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Order number:
5662680000 PRO Router Flyer EN



ADVANCED NETWORK DEVICES

AT SOME POINT THERE IS A LIMIT TO WHAT CONVENTIONAL SECURITY CAN ACHIEVE.



THAT'S THE POINT WHERE
WEIDMÜLLER ROUTING
TECHNOLOGY TAKES OVER.

Simply imagine being alone on the Net ...

Imagine you are working at your workstation of Stuttgart, evaluating the productivity data of your East Asian production plant. You access the net, download the data, save them to your password-protected system, and that's it.

But what makes you certain that you're the only person right now to use your sensitive data?

Information sent over the internet is just about as safe as a message in a bottle. Anyone knowing a little about how to do it can intercept and abuse it, without yourself even noticing that something is going on.

These days, damage due to spying, disruption, and other forms of abusing sensitive data has already reached levels that are hardly imaginable. But should that lead us to refraining from the industrial use of the public networks?

We at Weidmüller have addressed this issue in depth and have developed technologies that are able to keep at bay effectively and reliably the hazards lingering on your doorstep. That is how we have made available data communications that set entirely new standards in terms of security, reliability, and user-friendliness.

Select Weidmüller Routing Technologies. It's a small step for you but a giant leap for the security of your data communications.

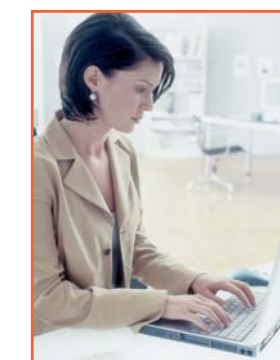


We Bring Top-level Security to the Net

Industrial networks and office networks run on the same Ethernet standards, and yet they are totally different: while large amounts of data and, as a result, a certain "inertia" of the network are totally acceptable in office networks, excessive response times may lead to stalling, errors, hence to the generation of considerable costs, in industrial networks.

Communication networks used for office applications and for automation are converging. The advantages that result from this process are put into practice more and more frequently because they make procedures more transparent and facilitate data exchange substantially.

Weidmüller Industrial Routers ensure that different networks interoperate in unison and with top-level security.



Customer's Network

Router Configurator: remote access from around the world to your router for maintenance and support

To customize the routers in order to get the optimum out of them, you can choose to tailor them exactly to your needs via a web browser, via SNMP, or using Weidmüller's management software called "Configurator."

The "Configurator" allows reliable remote maintenance of your systems around the world. Updating the software on a full set of routers, supporting and managing their performance is done conveniently and securely from your office.

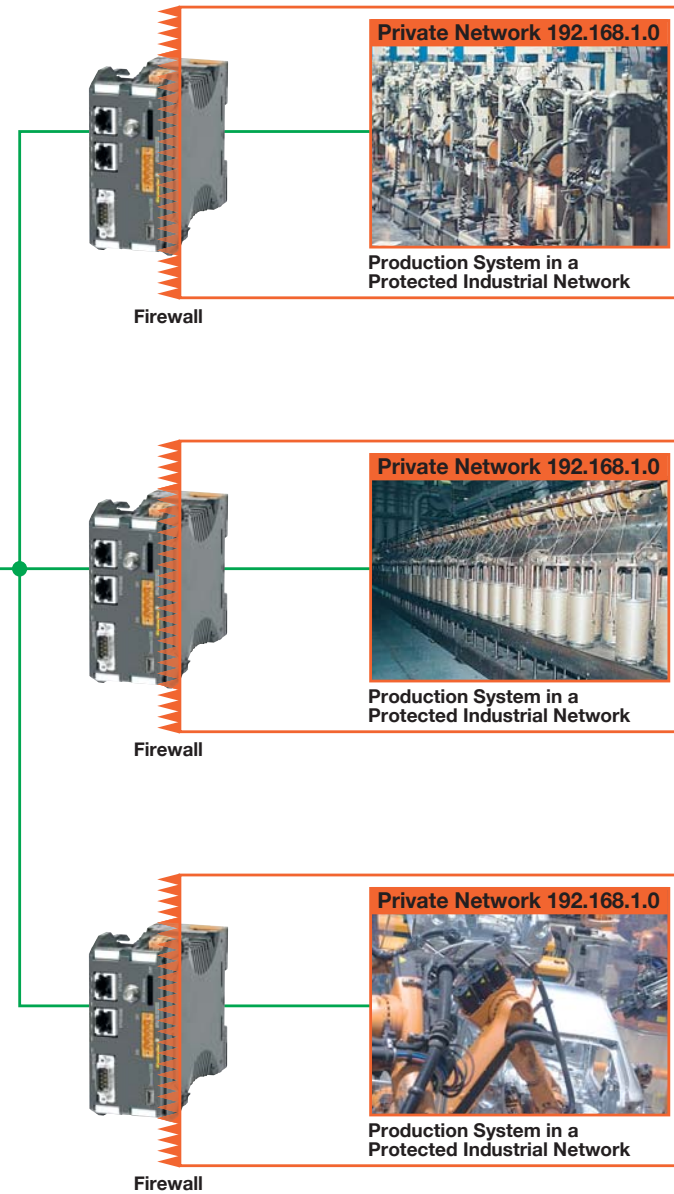
The Security Datasheet

... assists you with the configuration. It describes the way the firewall has to behave to ensure that the connected systems

can work normally. You no longer need to worry about technical details, such as ports. The configuration software does this job for you. A few mouse clicks is all it takes to have your firewall ready for operation.

Intelligent Firewall: Stateful Package Inspection

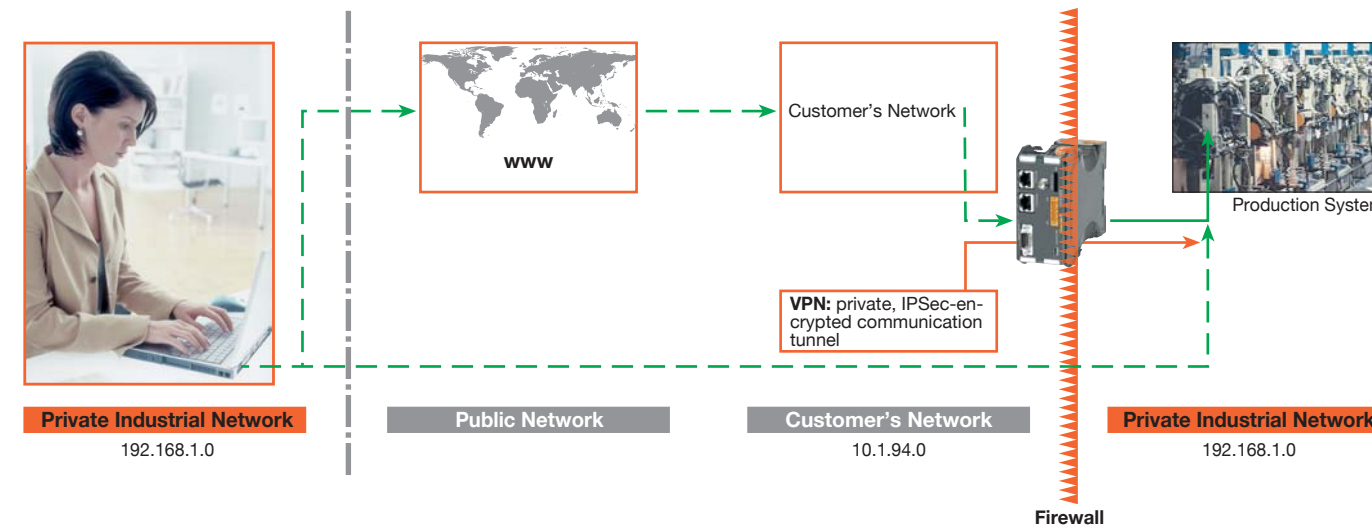
Our routers ship with firewalls that adapt automatically to the network traffic they see (Stateful Package Inspection). They recognize the messages that are stateful, i.e., legitimized, and let them pass. Unidentified packets are kept out of your industrial networks.



Bodily Search at the Point of Entry: IPsec Encryption for Virtual Private Networks (VPN)

To frustrate eavesdroppers, the router transmits your data encrypted.

Weidmüller Routers for VPNs enable access to components from around the world with IPsec-encrypted procedures, thus ensuring top-level security with minimum effort.



Pathfinder on the net: OSPF (Open Shortest Path First)

OSPF is the dynamic routing protocol within a system that describes the status of the gateways connecting to data networks. The salient feature of the protocol is its rapid and dynamic response to changes in the network structure.



Port forwarding, NAT, and masquerading

The router is capable of translating addresses between networks. That's how, for instance, all devices of one system can be masqueraded behind a single router. Someone attacking over the network (e.g., the internet) can see only the router, while all the devices behind it are hidden from the outside world to protect them.

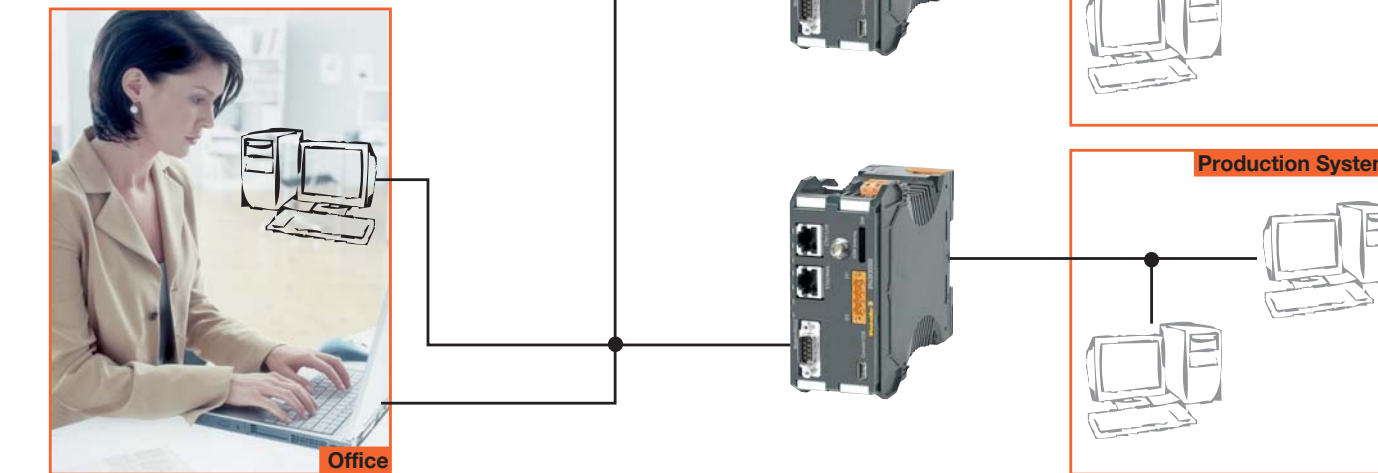
Virtual Mapping with Weidmüller's Router

Virtual mapping—or, NAT—enables you to operate simultaneously several identically configured networks behind routers equipped with NAT capabilities. The system engineer can hide the system behind the router and needs not adjust its IP configuration. This allows using the system with the same configuration over and over again. NAT is required as an alternative to port suffixes

when using applications that cannot suffix IP addresses with port numbers when they send requests (e.g., some PLC applications).

The advantage of virtual mapping:

Two or more machine networks with the same configuration can be connected to a superordinated network without any changes.



Additional Features for Convenient Data Communications

Modem

Weidmüller Routers support modem connections for dial up connections to the router. This feature is extremely valuable for remote maintenance in situations where a direct connection of the network to the internet is undesired. Different types with built-in Analog-, ISDN- or GSM-modem are available, alternatively an external modem can be connected.

Highspeed Routing

Based on his high performance architecture the Router is able to forward data with nearly wire speed (100 Mbit/s). This is an important feature for high speed applications and applications with large data volumes.

Integrated Servers

The router provides additional network functionalities that normally require a separate computer, for example automatic addressing and automatic time serving and synchronization.

Dial on Demand and Callback

When a router is used to connect a network to the internet over a modem, Dial on Demand comes in handy to cut costs. In this configuration the router establishes a connection only when a device in the network wants to download data from the internet. When it is done, the router disconnects automatically. Callback is often used for remote maintenance purposes. The router dials a preset phone number, e.g., that of the system manufacturer's service center. This means that the dial-up costs are borne by the customer.

All Features and Technical Specifications at a Glance



WaveLine Router

Security:

- SSH tunnel
- Virtual Private Network (VPN)
- Masquerading, routing without masquerading
- Virtual mapping (NAT)
- Port forwarding
- Dedicated rules
- Port filter
- Stateful Packet Inspection (SPI) firewall
- Integrated Security Data Sheet (SDS)
- Secure shell

Dial-in, Dial-out:

- Router models with internal analog, ISDN or GSM modem
- RS232 port for connecting external modems (e.g., DSL)
- PPPoE (DSL)
- Dial on Demand
- Callback

Configuration, management:

- Easy configuration and access via a web interface
- USB port for configuration on site
- External software Weidmüller Device Configurator for configuring several routers in a network
- Any configuration inheritable
- Simple Network Management Protocol (SNMP)

Network services:

- Link Layer Discovery Protocol (LLDP)
- Stealth mode, bridge mode
- DHCP server or client
- DNS server
- DynDNS
- Open Shortest Path First (OSPF)

Technical data

Housing	Plastic
Length/Width/Height	108 mm/45 mm/127,8 mm
AC input voltage, min.-max.	10 – 24 V AC
DC input voltage, min.-max.	10 – 35 V DC
AC input power/DC	6 VA / 4 W
Input frequency	47 – 63 Hz
Redundancy	2 digital inputs
Operating temperature, min.-max.	0 °C ... 55 °C
Storage temperature, min.-max.	-40 °C ... 85 °C
Installation	TS 35
Ingress protection class	IP 20
Standard	IEEE 802.3; IEEE 802.3u; IEEE 802.3x
Data rate	10 Base-T/100 Base-TX (copper)
Segment length	copper 100 m
Flow control	half-duplex/full-duplex
Status indication	Power; Link; Activity; Speed; Status; Line Status

Ordering data

Ports	Type	Order No.
2x RJ45; 2x DI; 1x USB; 1x RS232	IE-AR-100T-WAVE	8943830000
2x RJ45; 2x DI; 1x USB; 1x RS232	IE-AR-100T-AN-WAVE	8943850000
2x RJ45; 2x DI; 1x USB; 1x RS232	IE-AR-100T-ISDN-WAVE	8943840000
2x RJ45; 2x DI; 1x antenna; 1x USB; 1x RS232	IE-AR-100T-GSM-WAVE	8943860000

Accessoires

Weidmüller offers all components to build up an industrial ethernet network, from cables and connectors up to switches and Routers. Please find detailed information in our catalogue No. 9 "Industrial Ethernet" or on the web under www.weidmueller.com