



# HIRSCHMANN

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## Product Bulletin

PB 1098AG

### Hirschmann™ EAGLE20-0400 and EAGLE30-0402

Multi-port industrial firewalls – with new SHDSL interface – minimize network downtime and enable higher link speeds over local and wide area networks.



**With added router redundancy and WAN interface, the enhanced Hirschmann™ firewalls provide a unique combination of high-performance WAN connections with industry standard security solutions, which helps increase operational productivity and cost savings.**

- **Flexibility** – EAGLE WAN firewall can now connect to the network through symmetrical high-speed digital subscriber lines (SHDSL), transmitting data via telephone lines
- **Cost and space savings** – with up to eight ports available, certain applications can deploy a single device, instead of purchasing and configuring multiple firewalls
- **Enhanced security** – added redundancy options and faster link speeds help deliver the highest level of network security

To help achieve maximum network availability, Hirschmann has updated two of its EAGLE industrial firewalls, which both offer unprecedented flexibility of deployment, as well as state-of-the-art security functionality. These highly-adaptable devices are built-to-order from the factory, enabling customers to select the combination of local area network (LAN) and wide area network (WAN) ports to meet their individual network's unique requirements.

This hardware not only includes support for Ethernet ports, but most recently, SHDSL connections as well. Now, customers can transmit their network's information and control data more quickly over traditional copper telephone lines, in addition to Ethernet cabling. For additional flexibility, the SHDSL port can be used as a switched port, like the other Ethernet ports on the EAGLE20/30. The security routers also uniquely offer up to eight total ports per device – more than any other similar Din-Rail category firewall in the industry.

Future hardware releases will support additional WAN interfaces, like universal mobile telecommunications system (UMTS), asymmetric digital subscriber line (ADSL), very-high-bit-rate digital subscriber line (VDSL), and E1/T1.

### Applications

The Hirschmann EAGLE20-0400 and EAGLE30-0402 deliver firewall protection wherever security is required. Due to their robust design and hardened casings, they are able to operate in any industrial setting, including machine building, the general automation industry, and particularly, in the automotive sector.

Their extended operating temperature range also makes them ideally suited to the needs of the oil and gas, water and wastewater, food and beverage, and transportation industries.

### Your Benefits

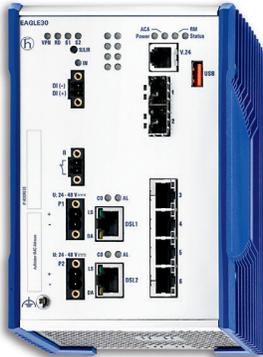
The primary advantage of EAGLE20-0400 and EAGLE30-0402 is the number and type of ports available: a total of eight possible ports per device, including four Fast Ethernet, two gigabit and two SHDSL ports. With many configuration options available, a single device can be deployed in some scenarios, eliminating the need for multiple routers, which significantly saves both space and costs. Link speeds greater than 100Mb/s are also available through the EAGLE30-0402's gigabit ports, in order to deliver the highest level of network security.

**A new product to serve your needs.  
Be certain.**



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Up to eight ports available to maximize the use of a single device.

## Hirschmann™ EAGLE20/30

The Hirschmann EAGLE20-0400 and EAGLE30-0402 are multi-port firewalls in convection-cooled, metal DIN rail housings, which support eight total ports.

The EAGLE WAN firewalls are designed to fulfill the requirements of the IEEE 1686 standard, including functions such as security audit trails and user management with password policies. To exceed these requirements and be prepared for future standards, several secure configuration interfaces are part of the router's functionality, as is a unique configuration encryption.

### Benefits at a Glance

- Availability of multiple ports offers cost savings and flexibility
- Ethernet in the First Mile (EFM) through newly added SHDSL-Interfaces
- Includes router redundancy for reduced downtime
- Increased router throughput performance
- Wirespeed packet filtering using Access Control List (ACL) rate limiters and Ingress Protection
- State-of-the-Art Statefull Inspection Firewall
- Network Address Translation for every use case: 1:1 NAT, Double-NAT, Masquerading NAT, Destination NAT and Hairpin NAT
- Simple intrusion detection
- Small form-factor pluggable (SFP) support for twisted-pair gigabit cables
- Ideal industrial firewall for networks with high-speed routing requirements
- Meets various standards and approvals



## Hirschmann™ Security Operating System (HiSecOS) 2.0

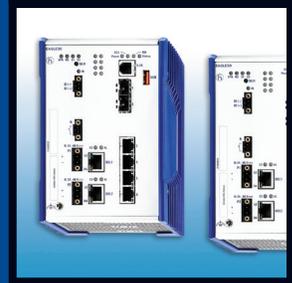
The multiple-port gigabit EAGLE firewalls with newly-added SHDSL WAN interface come with the Hirschmann Security Operating System (HiSecOS).

The newest version of this software heightens network performance and adds more robust security features for the EAGLE firewalls. The additional features secure LAN and WAN against both unplanned attacks and operating errors.

### HiSecOS 2.0 Specifically Features:

- Additional router redundancy protocols, including virtual router redundancy protocol (VRRP)
- Support for the new SHDSL interface on the EAGLE20/30
- Enhanced security, including Ingress Protection and ACL-based counters and filters
- VPN (IPSec) for secured WAN communication
- OSPFv2 for seamless interconnection with routed backbones without any manual configuration
- SFP support for gigabit twisted-pair cables

By tapping the latest version of HiSecOS to run the newest EAGLE WAN routers with SHDSL functionality, customers can use a single device to segment and secure their mission-critical network.



## Technical Information

Product Description	
Type	EAGLE20-0400
Stateful Inspection Firewall	Firewall rules (incoming/outgoing, management), IP masquerading, 1:1 NAT, Double-NAT, Masquerading NAT, Destination NAT, Hairpin NAT, DoS Protection, Access Control Lists (ACLs)
Description	Industrial Firewall, Router, Transparent (Bridging)
Port Type and Quantity	4 x 10/100BASE-TX, TP-cable, RJ45-socket, Autocrossing, Autonegotiation, Autopolarity
Order-No.	see online configurator
<b>Interfaces</b>	
V.24 Interface	1 x RJ11 socket (serial interface for device configuration)
USB Interface	1 x USB socket (to connect auto-configuration adapter ACA22-USB)
SD Interface	1 x SD socket (to connect auto-configuration adapter ACA31)
<b>Power Requirements</b>	
Power Supply/Signaling Contact	For CC Power Supply: 2 x plug-in terminal block 2-pin, for K9 Power Supply: 1 x plug-in terminal block 3-pin
Power Consumption	max. 19 W
Operating Voltage	2 x 24/36/48 V DC (18 – 60 V DC), or 1 x 60/110/125/220/250 V DC (48 V – 320 V DC) and 110/120/220/230 V AC (88 – 265 V AC)
<b>Software</b>	
Software Version	HiSecOS 02.0
Security	Firewall rules (incoming/outgoing, management), DoS prevention, IPSec VPN, Layer 3 and Layer 2 Access Control Lists (ACL), ACL flow based limiting, Audit trail, Management VLAN, Role based Access Control, IEEE1686 compliant configuration possible, Ingress storm protection
Routing	VLAN and port based routing, static routing, multinetting, IP masquerading, 1-to-1 NAT, port forwarding, Static and Dynamic ARP entries, OSPFv2
Management	SNMPv3, SSH2/SFTP, HTTPS, V.24 CLI, SNMPv1/2, local and central User Management (RADIUS), HiDiscovery, Industrial HiVision, HiView
Diagnostics	LEDs (Power, Link Status, Data, Status, ACA, RM), Signal Contact (24 V DC/1 A), Log File, Syslog, Configuration check RMON (Statistic), SFP diagnostics (temperature, optical transmit and receive power), trap for changes and configuration saves, Counter for ACL Rules
Configuration	Command Line Interface (CLI), web interface, Auto Configuration Adapter (ACA22, ACA31), HiDiscovery, Industrial HiVision, HiView
Other Services	NTP, VLAN support (IEEE 802.1Q), rate limiter
Redundancy Functions	VRRP (Virtual Router Redundancy Protocol)
Protocols	Serial, HTTPS, SSH, SNMP V1/V2/V3, LLDP
<b>Mechanical Stability</b>	
IEC 60068-2-27 Shock	15 g, 11 ms duration, 18 shocks
IEC 60068-2-6 Vibration	1 mm, 2 Hz – 13.2 Hz; 0.7g, 13.2 Hz – 100 Hz
<b>Construction</b>	
Weight	1.2 to 1.9 kg
Mounting	DIN Rail 35 mm
Protection Class	IP20
Dimensions (W x H x D)	Temperature Standard (S): 90 x 164 x 120 mm (for WAN: 99); 108 x 164 x 120 mm (for WAN: H2) Temperature Extended (T, E): 98 x 164 x 120 mm (for WAN: 99); 116 x 164 x 120 mm (for WAN: H2)
<b>Ambient Conditions</b>	
Operating Temperature	-40 °C to +70 °C
Relative Humidity (non-condensing)	10% to 95%
Storage/Transport Temperature	-40 °C to +85 °C
<b>Approvals</b>	
Germanischer Lloyd	Germanischer Lloyd
Manufacturer Declaration of Conformity	CE, C-Tick, FCC
Safety of Industrial Control Equipment	cUL 508
Hazardous Locations	cUL Approval according to ISA-12.12.-01 Class 1 Div. 2 Group A, B, C, D
Substation	EN 61850-3, IEEE 1613
Traffic Controller	NEMA TS 2
<b>Scope of Delivery and Accessories</b>	
Scope of Delivery	Device, terminal block, operating instructions, CD-manual
Accessories to Order Separately	Rail power supply RPS 30, RPS 80 EEC, RPS 120 EEC, terminal cable, network management Industrial HiVision, Auto-configuration adapter (ACA22-USB EEC or ACA31), 19" installation frame
<b>Reliability</b>	
MTBF Range	46.3 to 67.1 years
Warranty	5 years standard

NOTE: These are the prominent technical specifications. For complete technical specifications visit: [www.hirschmann.com](http://www.hirschmann.com)



## Multi-port Industrial Firewall Configurations

### EAGLE20-0400 and EAGLE30-0402

EAGLE30-0402206TT999TCCZ9HSE3FXX.X.XX

**Design/Model**

EAGLE20 = Security Router  
**EAGLE30** = Security Router

**Fast Ethernet Ports**

**04** = 4 x 10/100 Mbit/s

**Gigabit Ethernet Ports**

00 = 0 x 1000 Mbit/s  
**02** = 2 x 1000 Mbit/s

**Type Uplink Ports**

**206** = All SFP slots  
999 = Not available

**Remaining Ports**

**TT** = All Twisted Pair

**Cellular Ports**

**9** = Not available

**WAN Ports**

**99** = Not present  
H2 = 2 x SHDSL

**Temperature Range**

S = 0 °C to +60 °C  
**T** = -40 °C to +70 °C  
E = -40 °C to +70 °C inclusive Conformal Coating

**Voltage Range**

**CC** = 2 x 24/36/48 V DC  
K9 = 1 x 60/110/125/220/250 V DC and 110/120/220/230 V AC

**Approvals**

<b>Z9</b> = CE, FCC, EN 61131, (EN 60950)	<b>T9</b> = Z9 + EN50121-4
<b>Y9</b> = Z9 + cUL508	<b>TY</b> = T9 + cUL508
<b>X9</b> = Z9 + cUL508 + ISA 12.12	<b>V9</b> = Z9 + IEC61850-3, IEEE1613
<b>U9</b> = Z9 + GL (ABS, BV, DNV, LR)	<b>VY</b> = V9 + cUL508
<b>UY</b> = U9 + cUL508	<b>VU</b> = V9 + GL (ABS, BV, DNV, LR)
<b>UX</b> = U9 + cUL508 + ISA 12.12	<b>VT</b> = V9 + cUL508 + EN50121-4
<b>UT</b> = U9 + cUL508 + EN50121-4	

**OEM Type**

**HS** = Hirschmann™ Standard

**Configuration**

**E** = Standard Configuration

**Software Level**

**3F** = Layer 3 Firewall Software

**Software Version**

**XX.X.XX** = Current Software Release  
01.2.00 = Software Release 1.2

**NOTE:** The part number categories (**OEM Type**, **Configuration** and **Software Version**) are optional.