Industrial Firewall/VPN Router System

EAGLE One

EAGLE One is a powerful member of the EAGLE family, which has become the epitome of industry-standard firewall systems in recent years. This industrial security router, which ensures maximum data security for production networks, is a combination of the familiar proven EAGLE20 software with state-of-the-art hardware. Thanks to its reduced power consumption, it also offers significantly lower operating costs. In addition, the extended operating temperature range of the EAGLE One means that it can often be used without additional air-conditioning equipment. A further plus is its approval for use in potentially explosive environments. This means that even more industrial sectors, including oil and gas, can now benefit from EAGLE's proven security technology. Other features of this security router include extensive management facilities and diagnostic tools, a robust metal housing for DIN rail mounting, and a redundant power supply for both DC and AC.

The EAGLE One firewall comes with Classic Firewall Software which offers all the essential features of a security router and a large range of protection functionalities for virtually every design of network.

Product Features

- All-round protection of automation networks with an optimal price-performance ratio
- Redundant backbone connections for production cells
- State-of-the-Art Stateful Inspection Firewall for bridged and routed traffic
- Router redundancy plus stateful firewall and 1:1 NAT in Layer 3 mode
- Text-based configuration file for automated pre-configuration
- Network Address Translation for every use case: 1:1 NAT, Double NAT, Masquerading NAT, Destination NAT and Hairpin NAT
- User-friendly configuration and diagnostics via Industrial HiVision, HiView, HiDiscovery, offline configuration tool and web interface
- Wide range of transmission and encryption standards (PPPoE, PPP, IKEv1/v2, IPsec, NAT)
- A variety of security mechanisms (stateful packet inspection firewall, VPN)
- Digital input for controlling VPN connections
- Numerous management functions (SNMPv3, SSH2/SFTP, HTTPS, V.24 CLI, SSH1, SNMPv1/2)
- Optional extended operating temperature range from -40 °C to +70 °C (standard is 0 °C to +60 °C)
- Variants for twisted-pair cables (RJ45) and multimode fibers (SC)
- Robust metal housing for DIN rail mounting
- Meets principal standards and approvals:
  – Energy sector: IEC 61850-3, IEEE 1613
  – Hazardous areas: ATEX, ISA-12.12.01 Class 1 Div. 2
  – Transport sector: EN 50121-4
  – Shipping: Germanischer Lloyd
- Identical software to the EAGLE20, with identical housing dimensions

Technical Information

Product Description			
Type	**EagleOne-0200T1T1**	**EagleOne-0200T1M2 I EagleOne-0200M2T1**	**EagleOne-0200M2M2**
Description	Industrial Security Router		
Port Type and Quantity	2 x FE		
Additional Interfaces			
V.24 Interface	1 x RJ11 socket serial interface for device configuration or modem attachment		
USB Interface	1 x USB socket to connect auto-configuration adapter ACA21-USB		
Digital Input	1 x plug-in terminal block, 2-pin		
Signaling Contact	1 x max. 60 V DC or max. 30 V AC, SELV, max. 1A		
Network Size			
Multimode Fiber (MM) 50/125 µm	–	0 to 5000 m, 8 dB Link Budget at 1300 nm, A = 1 dB/km, 3 dB Reserve, B = 800 MHz x km	
Multimode Fiber (MM) 62,5/125 µm	–	0 to 4000 m, 11 dB Link Budget at 1300 nm, A = 1 dB/km, 3 dB Reserve, B = 500 MHz x km	
Twisted Pair (TP)	0 to 100 m		n.v.
Power Requirements			
Operating Voltage	12 to 48 V DC, 24 V AC redundant power supply		
Power Consumption	5 W	6 W	7 W
Power Supply/Signaling Contact	1 x plug-in terminal block, 6-pin		
Software			
Management	SNMPv3, SSH2/SFTP, HTTPS, V.24 CLI, SSH1 and SNMPv1/2, HiDiscovery, Industrial HiVision, HiView		
Diagnostics	LLDP, LEDs (status, VPN, redundancy, link status, data, ACA), signal contact, logfile, syslog, configuration check		
Firewall	Firewall rules (incoming/outgoing, modem access, management), DoS prevention, MAC filter, user firewall for external activation of FW rules		
Routing and NAT	Static routing, multinetting, IP masquerading, 1-to-1 NAT, port forwarding		
VPN	Point to point, point to multipoint, remote enable/disable or via digital input, IPSec, IKEv1/v2, 3DES, AES (-128, -192, -256), Pre-Shared Key, X.509v3 certificates, MD5, SHA-1, NAT-T		
Redundancy Functions	Use in redundant networks/ring coupling, firewall redundancy (layer 4)		
Other Services	NTP, SNTP, DHCP Server/Client, DHCP Relay/Option 82, DynDNS, PPP, PPPoE, VLAN-Support		
Ambient Conditions			
Operating Temperature	0 °C to +60 °C, or -40 °C to +70 °C (IEC 60068-2-2 Dry Heat Test +85 °C 16 hours), dependent on device variant		
Storage/Transport Temperature	-40 °C to +85 °C		
Relative Humidity (non-condensing)	10% to 95%		
Conformal Coating	yes (dependent on device variant)		
Mechanical Construction			
Dimensions (W x H x D)	60 x 145 x 125 mm		
Weight	660 g		
Protection Class	IP20		
Mounting	DIN Rail 35 mm		
Approvals			
Declaration of Conformity	CE, FCC, EN 61131, C-TICK, EN 60950		
Safety of Industrial Control Equipment	cUL508 (pending, dependent on device variant)		
Hazardous Locations	ISA-12.12.-01 Class 1 Div. 2 – Haz. Loc, ATEX-95 Category 3G (Zone 2), (pending, dependent on device variant)		
Germanischer Lloyd	Pending, dependent on device variant		
Railway (norm)	EN 50121-4 (dependent on device variant)		
Substation	IEC 61850-3, IEEE 1613 (dependent on device variant)		
Reliability			
MTBF	74.5 years	69 years	64.2 years
Warranty	5 years (standard)		

NOTE: These are the prominent technical specifications. For complete technical specifications visit: www.hirschmann.com

EAGLE One Configurations

Design/Model

EagleOne = Security Router

Fast Ethernet Ports

02 = 2 x 10/100 Mbit/s

Gigabit Ethernet Ports

00 = Not available

Type Port 1

T1 = 1 x Twisted Pair RJ45
M2 = 1 x Multimode SC

Type Port 2

T1 = 1 x Twisted Pair RJ45
M2 = 1 x Multimode SC

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

DD = 9.6 to 60 V DC/18 to 30 V AC; 9.6 to 60 V DC/18 to 30 V AC

Approvals

Z9 = CE, FCC, EN 61131, EN 60950
Y9 = Z9 + cUL508
X9 = Z9 + cUL508, ISA12.12
W9 = Z9 + ATEX
WX = X9 + ATEX
U9 = Z9 + GL
UY = U9 + cUL508
UX = U9 + cUL508, ISA12.12
UT = U9 + cUL508 + EN 50121-4
T9 = Z9 + EN 50121-4
TY = T9 + cUL508
V9 = Z9 + IEC 61850, IEEE 1613
VY = V9 + cUL508
VU = V9 + cUL508, GL
VT = V9 + cUL508, EN 50121

Software Packages

0000 = Reserved

OEM Type

HH = Standard

Configuration

E = Hirschmann Standard Configuration

Software Release

XX.X.XX = Current Software Release

NOTE: The last four part number categories (**Software Packages, OEM Type, Configuration** and **Software Release**) are optional.