

# EDR-G903 Series

▶ Award-winning Product



## Industrial Gigabit Firewall/VPN secure routers



- > Firewall/NAT/VPN/Router all-in-one
- > High performance Gigabit copper/fiber combo port
- > WAN redundancy function with 2 WAN interfaces and 1 LAN interface
- > Firewall with Quick Automation Profile for Fieldbus protocols
- > Network address translation (N-to-1, 1-to-1, and port forwarding)
- > VPN security with IPSec, L2TP, and PPTP functions
- > Intelligent PolicyCheck and SettingCheck tools
- > -40 to 75°C operating temperature range (T model)
- > NERC CIP compliance



### Introduction

The EDR-G903 series is a Gigabit performance, all-in-one Firewall/VPN/Router. It is designed for Ethernet security applications in sensitive remote control or monitoring networks, and provides an Electronic Security Perimeter for the protection of critical cyber assets. The EDR-G903 series Cyber Security features include:

- Firewall: Controls network traffic between different trust zones. Network Address Translation (NAT), which shields the internal LAN from unauthorized activity from outside hosts, is included.
- Virtual Private Networking (VPN): VPNs are designed to provide users with secure communication links when accessing a private network from the public Internet. Uses IPSec (IP Security) for encryption and authentication of all IP packets at the network layer to ensure confidentiality and sender authentication.

The EDR-G903 supports one WAN, one LAN, and a user-configurable WAN/DMZ interface that provides high flexibility in different applications such as WAN redundancy or Data/FTP server security protection. The EDR-G903's Quick Automation Profile function supports most common Fieldbus protocols, including EtherCAT, EtherNet/IP, FOUNDATION Fieldbus, Modbus/TCP, and PROFINET. Users can easily create a secure Ethernet Fieldbus network from a user-friendly web UI with a single click operation. In addition, wide temperature models are available that operate reliably in hazardous, -40 to 75°C environments.

### Specifications

#### Technology

##### Standards:

IEEE 802.3 for 10BaseT  
 IEEE 802.3u for 100BaseT(X) and 100BaseFX  
 IEEE 802.3ab for 1000BaseT(X)  
 IEEE 802.3z for 1000BaseX

**Protocols:** SNMPv1/v2c/v3, DHCP Server/Client, TFTP, NTP, HTTP, HTTPS, Telnet, SSH, Syslog, SMTP, LLDP, PPPoE, PPTP, Dynamic DNS, QoS (Quality of Service)

**Routing:** Static routing, RIP V1/V2

**Flow Control:** IEEE 802.3x flow control, back pressure flow control

##### Interface

**WAN 1:** 1 RJ45/fiber combo port

**WAN 2 / DMZ:** 1 RJ45/fiber combo port

**LAN:** 1 RJ45/fiber combo port

**RJ45 Ports:** 10/100/1000BaseT(X) auto negotiation speed

**Fiber Ports:** 100/1000BaseSFP slot

**LED Indicators:** PWR1, PWR2, FAULT, 10/100/1000M, DMZ/WAN

**DIP Switches:** N/A

**Alarm Contact:** One relay output with current carrying capacity of 1 A @ 24 VDC

**Digital Inputs:** 1 input

- +13 to +30 V for state "1"
- -30 to +3 V for state "0"
- Max. input current: 8 mA

#### Security Function

##### Firewall:

- Stateful inspection
- Filter: IP and MAC address, ports, protocol
- Bridge mode firewall

**Quick Automation Profile:** EtherCAT, EtherNet/IP, FOUNDATION Fieldbus, LonWorks, Modbus/TCP, PROFINET, IEC 60870-104, DNP, FTP, SSH, Telnet, HTTP, IPSec, L2TP, PPTP, RADIUS

**NAT:** N-to-1, 1-to-1, and port forwarding

**VPN:** IPSec, L2TP, PPTP

**Encryption:** DES, 3DES, AES

**Authentication:** Pre-shared key (PSK), X.509v3 certificates, MD5, SHA

#### Power Requirements

**Input Voltage:** 12/24/48 VDC (9.6 to 60 VDC), redundant dual inputs

**Input Current:** 0.53 A @ 24 V

**Overload Current Protection:** Present

**Connection:** Removable terminal block

**Reverse Polarity Protection:** Present

### Physical Characteristics

**Housing:** Metal  
**Dimensions:** 51 x 152 x 131.1 mm (2.01 x 5.98 x 5.16 in)  
**Weight:** 1250 g  
**Installation:** DIN-Rail mounting, wall mounting (with optional kit)

### Environmental Limits

**Operating Temperature:**  
 Standard Models: 0 to 60°C (32 to 140°F)  
 Wide Temp. Models: -40 to 75°C (-40 to 167°F)  
**Storage Temperature:** -40 to 85°C (-40 to 185°F)  
**Ambient Relative Humidity:** 5 to 95 % (non-condensing)

### Standards and Certifications

**Safety:** UL 508  
**EMI:** FCC Part 15 Subpart B Class A, EN 55022 Class A

### EMS:

EN 61000-4-2 (ESD) Level 3, EN 61000-4-3 (RS) Level 3,  
 EN 61000-4-4 (EFT) Level 3, EN 61000-4-5 (Surge) Level 3,  
 EN 61000-4-6 (CS) Level 3

**Shock:** IEC 60068-2-27

**Freefall:** IEC 60068-2-32

**Vibration:** IEC 60068-2-6

*Note: Please check Moxa's website for the most up-to-date certification status.*

**MTBF** (mean time between failures)

**Time:** 530,000 hrs

**Database:** Telcordia (Bellcore), GB

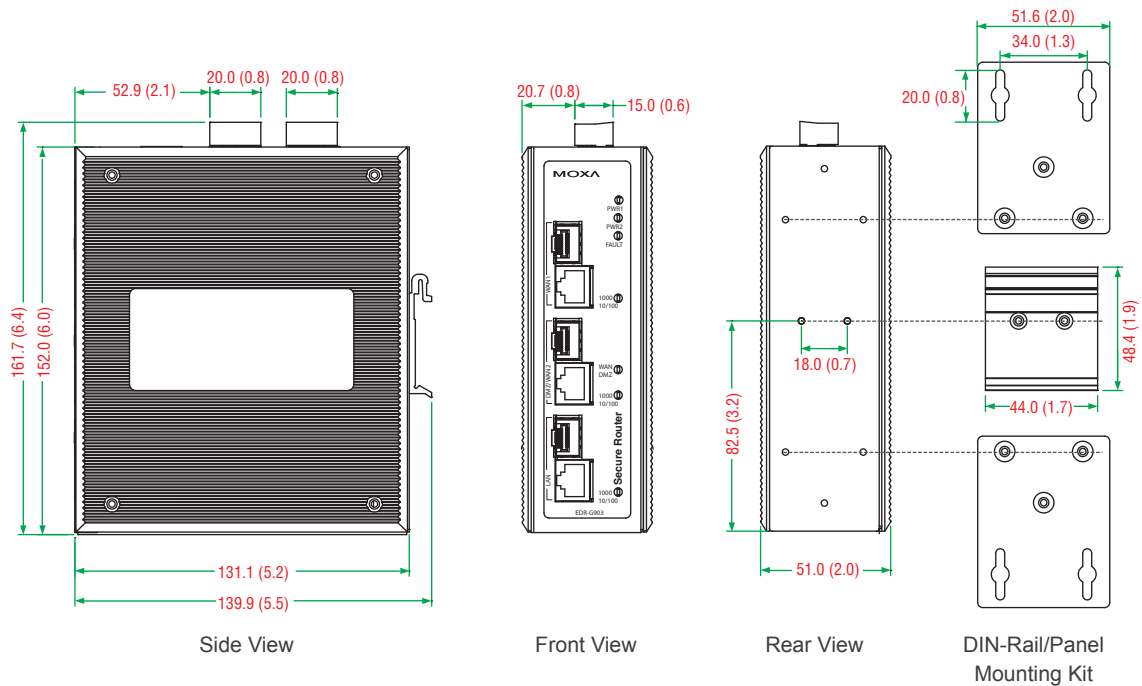
### Warranty

**Warranty Period:** 5 years

**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

### Dimensions

Unit: mm (inch)



### Ordering Information

#### Available Models

**EDR-G903:** Industrial Gigabit firewall/VPN secure router with 3 combo 10/100/1000BaseT(X) ports or 100/1000BaseSFP slots, 0 to 60°C operating temperature

**EDR-G903-T:** Industrial Gigabit firewall/VPN secure router with 3 combo 10/100/1000BaseT(X) ports or 100/1000BaseSFP slots, -40 to 75°C operating temperature

*Note: The EDR-G903 series secure routers support 3 100/1000BaseSFP slots. See pages 1-87 and 1-89 for information about SFP-1G/1FE series Gigabit/fast Ethernet SFP modules.*

#### Optional Accessories (can be purchased separately)

**DR-4524/75-24/120-24:** 45/75/120 W DIN-Rail 24 VDC power supplies

**WK-51-01:** Wall mounting kit

**RK-4U:** 4U-high 19" rack mounting kit

#### Package Checklist

- EDR-G903 secure router
- RJ45 to DB9 console port cable
- Documentation and software CD
- Hardware installation guide (printed)
- Warranty card