

EDF-G1002-BP 系列

2 埠 Gigabit 工業級次世代 LAN 防火牆



特色與優點

- 線路插件 (Bump-in-the-wire) 式安裝，不影響網路正常運作
- 第三代網路旁路 (LAN bypass) 設計，確保系統故障時網路不中斷
- 工業級入侵防禦/偵測系統 (IPS/IDS)
- 透過深度封包檢測 (DPI) 技術檢查工業通訊協定資料
- 支援安全開機功能以檢查系統完整性
- 一鍵檢查防火牆策略錯誤配置
- 支援 MXstudio，輕鬆實現可視化的工業網路管理

認證



EN 50121-4

簡介

EDF-G1002-BP 系列是一款工業級 LAN 防火牆，提供 IPS 與 DPI 功能來保護任務關鍵型資產與網路區域。這些工業防火牆支援軟體可配置的第三代網路旁路模式 (LAN bypass) 以實現可嵌入式安裝，並降低工業應用的安裝影響，例如給水站中的 ITS、泵送處理、分散式油氣控制系統及工廠自動化中的 PLC/SCADA 系統。

透過 IPS/IDS 動態防範 惡意威脅活動

EDF-G1002-BP 系列專為保護 OT 網路邊緣的關鍵任務資產而設計，提供進階入侵防禦與偵測系統 (IPS/IDS)。其可於背景分析網路流量，並針對網路活動進行行為監控與感知。這些防火牆裝置同時支援「監控」和「保護」模式，以因應不同的 OT 情境。「監控」模式可讓管理員完全掌握網路上的威脅活動。如果偵測到威脅，管理員可輕易切換至「保護」模式，以阻擋並抑制任何的惡意活動。

適用於任務關鍵型資產的工業深度封包檢測

EDF-G1002-BP 系列支援進階深度封包檢測 (DPI) 技術，提供工業通訊協定資料的感知能力，並實現對關鍵控制器流量的精細化指令控制。

虛擬修補智慧型資產威脅防護功能

定期更新修補程式能有效強化資安防護，抵禦網路威脅。然而，這在 OT 環境中仍是一項重大挑戰，因為 OT 應用無法承受關閉系統來中斷操作以進行修補的代價。虛擬修補技術可屏蔽已知和未知的安全漏洞，進而彌補現有修補管理程序的不足。虛擬修補是無代理程式的緊急安全工具，讓 OT 網管人員和操作人員能夠在發現網路攻擊事件後，迅速修補 OT 裝置的安全漏洞。EDF-G1002-BP 系列運用最新的威脅資訊提供進階威脅防護，為您的系統提供專屬的隱藏威脅和即時威脅的安全防護。

集中網路安全性與政策管理

EDF-G1002-BP 系列可協助管理員與操作員瞭解 OT 系統即時狀態。在連接到 Moxa 的 MXsecurity 集中安全管理平台後，管理員可從單一空間管理並監控所有入侵防禦系統。MXsecurity 可提供高效方式來監控裝置資產，並執行政策、配置、組態與模式更新。

規格

Input/Output Interface

Alarm Contact Channels	Resistive load: 1 A @ 24 VDC
Buttons	Reset button
Digital Input Channels	+13 to +30 V for state 1 -30 to +3 V for state 0 Max. input current: 8 mA

Ethernet Interface

10/100/1000BaseT(X) Ports (RJ45 connector)	3 (2 x LAN ports, 1 x MGMT port)
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) IEEE 802.3ab for 1000BaseT(X) IEEE 802.3x for flow control

Ethernet Software Features

Management	DDNS Web Console (HTTP/HTTPS) LLDP SNMPv1/v2c/v3 Telnet TFTP SSH
Concurrent Connections	Max. 120K (based on RFC 3511)
Connections Per Second	Max. 6K (based on RFC 3511)
Security	Secure Boot RADIUS Trust access control TACACS+ SCP SFTP NTP authentication Syslog authentication
Time Management	NTP Server/Client SNTP

LED Interface

LED Indicators	PWR1, PWR2, STATE, BYPASS, USB
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DoS and DDoS Protection

Technology	ARP-Flood FIN Scan ICMP Flood TCP Sessions Without SYN NMAP-ID Scan NMAP-Xmas Scan Null Scan SYN/FIN Scan SYN/RST Scan SYN-Flood Xmas Scan UDP Flood
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Firewall

Throughput	Max. 40K packets per second/500 Mbps (based on RFC 2544)
Filter	DDoS Ethernet protocols ICMP IP address MAC address Ports

Intrusion Prevention System	Enabled by default. IPS pattern update functionality requires an additional license.
Deep Packet Inspection	Modbus TCP Modbus UDP DNP3 IEC 60870-5-104 IEC 61850 MMS EtherNet/IP MELSEC Omron FINS OPC UA Siemens S7 Comm. Siemens S7 Comm. Plus Additional protocols will be supported through future firmware updates.

Real-time Firewall Event Log

Event Type	Firewall events Protocol DPI and IDS/IPS events
Media	Syslog server Local storage SNMP Trap

Serial Interface

Console Port	RS-232 (TxD, RxD, GND), 3-pin (115200, n, 8, 1)
Connector	USB Type-C

Power Parameters

Connection	Removable terminal block
Operating Voltage	9.6 to 60 VDC
Input Voltage	12/24/48 VDC (DNV certified) Redundant dual inputs
Input Current	0.69 A (max)
Reverse Polarity Protection	Supported

Physical Characteristics

Housing	Metal
Dimensions	35 x 125 x 100 mm (1,38 x 4.92 x 3.94 in)
Weight	385 g (0.85 lb)
Installation	DIN-rail mounting (DNV certified) Wall mounting (DNV certified)

Environmental Limits

Operating Temperature	Standard Models: -10 to 60°C (14 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Standards and Certifications

Safety	IEC 62368-1 UL 62368-1
EMC	EN 55032/35
EMI	CISPR 32, FCC Part 15B Class A

EMS	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 20 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Railway	EN 50121-4
Traffic Control	NEMA TS2
Maritime	DNV
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Hazardous Locations	ATEX Class I Division 2 IECEx

MTBF

Time	2,929,641 hrs
Standards	Telcordia (Bellcore), GB

Warranty

Warranty Period	5 years
Details	See www.moxa.com/tw/warranty

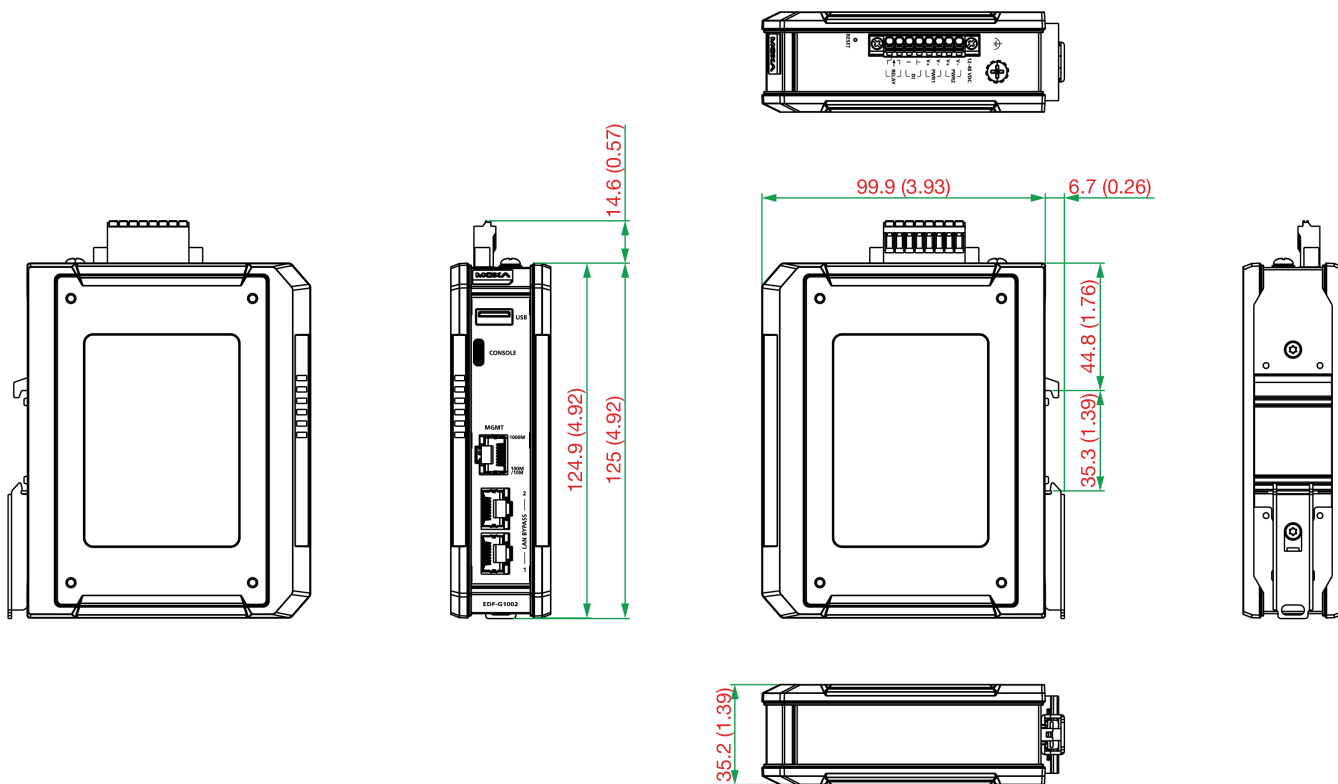
Package Contents

Device	1 x EDF-G1002-BP Series industrial LAN firewall
Cable	1 x DB9 female to USB Type-C
Installation Kit	1 x DIN-rail kit 1 x cap, plastic, for USB Type-A port
Documentation	1 x quick installation guide 1 x warranty card

尺寸

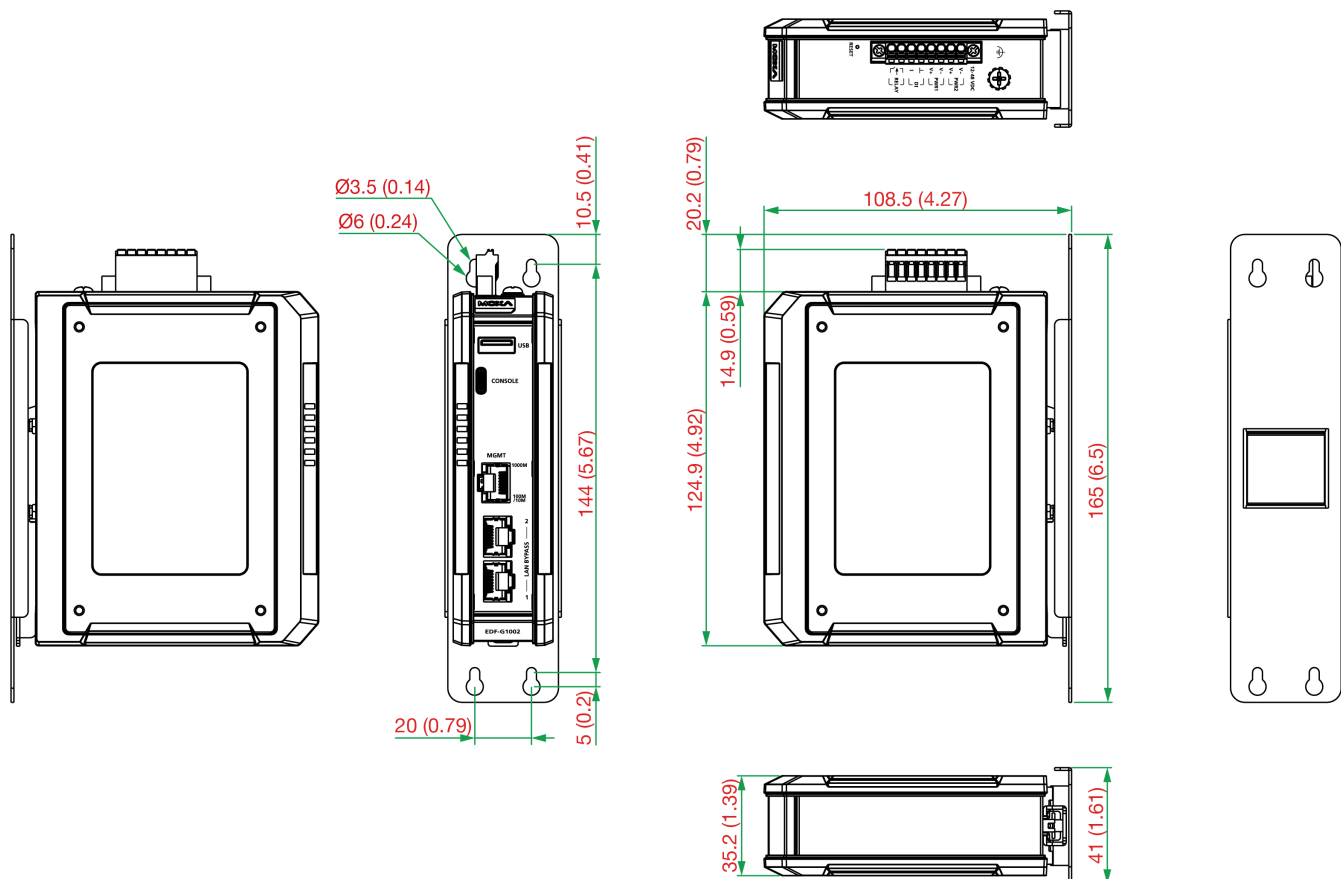
DIN 軌道 安裝

單位：公釐（英吋）



壁掛安裝

單位：公釐（英吋）



訂購資訊

Model Name	10/100/1000BaseT(X) Ports (RJ45 Connector)	10/100/1000BaseT(X) MGMT Ports (RJ45 Connector)	MXsecurity Support	Conformal Coating	Operating Temperature
EDF-G1002-BP	2	1	√	–	-10 to 60°C
EDF-G1002-BP-T	2	1	√	–	-40 to 75°C
EDF-G1002-BP-CT	2	1	√	√	-10 to 60°C
EDF-G1002-BP-CT-T	2	1	√	√	-40 to 75°C

配件（選購）

Storage Kits

ABC-02-USB	Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, 0 to 60°C operating temperature
ABC-02-USB-T	Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, -40 to 75°C operating temperature

Mounting Kits

WK-40-01	Wall-mounting kit, 2 plates, 6 screws, 40 x 58 x 2 mm
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Software

LIC-MXsecurity-NEW-XN-SR	MXsecurity perpetual node license with customizable node quantity (minimum 1 node)
LIC-IPS-MXsecurity-NEW-1Y-XN-SR	1-year IPS license for MXsecurity with customizable node quantity (minimum 1 node)
LIC-IPS-MXsecurity-NEW-XM-XN-DMR	IPS license for MXsecurity with customizable duration and node quantity (minimum 1 month, minimum 1 node)
LIC-IPS-MXsecurity-RENEW-1Y-XN-SR	1-year IPS renewal license for MXsecurity with customizable node quantity (minimum 1 node)
LIC-IPS-MXsecurity-RENEW-XM-XN-DMR	IPS renewal license for MXsecurity with customizable duration and node quantity (minimum 1 month, minimum 1 node)
LIC-IPS-MXsecurity-ADD-1Q-XN-SR	3-month IPS add-on license for MXsecurity with customizable node quantity (minimum 1 node)
LIC-IPS-MXsecurity-ADD-2Q-XN-SR	6-month IPS add-on license for MXsecurity with customizable node quantity (minimum 1 node)
LIC-IPS-MXsecurity-ADD-3Q-XN-SR	9-month IPS add-on license for MXsecurity with customizable node quantity (minimum 1 node)
LIC-IPS-MXsecurity-ADD-4Q-XN-SR	1-year IPS add-on license for MXsecurity with customizable node quantity (minimum 1 node)
LIC-IPS-MXsecurity-ADD-XM-XN-DMR	IPS add-on license for MXsecurity with customizable duration and node quantity (minimum 1 month, minimum 1 node)
LIC-IPS-DEVICE-RENEW-1Y-1N-MR	1-year device-based IPS renewal license
LIC-IPS-DEVICE-NEW-1Y-1N-MR	1-year device-based IPS license

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