



FortiGate® Rugged 60D

Integrated Security for Industrial Control Systems



FortiGate Rugged

FortiGate Rugged 60D

Integrated Security for Industrial Control Systems

While traditional security solutions are designed and intended for the world of offices and corporations, the FortiGate Rugged 60D is an industrially-hardened, all-in-one security appliance that delivers specialized threat protection for securing critical industrial and control networks against malicious attacks.

Ruggedized Protection for Harsh Environments

The FortiGate Rugged 60D meets all required performance and reliability standards for operating in demanding industrial settings. It was designed from the outset to operate reliably in harsh electrical and environmental conditions, including those with high levels of electrical and radio frequency interference and at wide ambient temperature ranges.

Industrial Network Security

Fortinet's FortiOS operating system running on the ruggedized platform provides specialized specific protections for industrial networks such as antivirus and Intrusion Protection (IPS) while Fortinet's FortiGuard team of security and threat experts delivers real-time protection and updates to help identify the latest threats and malicious activities with no administrator intervention or management needed.

Key Features & Benefits

Ruggedized Design	Fanless design and the use of robust components ensure reliable operation in harsh industrial environments.
Consolidated Security Architecture	Fortinet's consolidated security model offers better protection and lower TCO than multiple products across many vendors.
Ease of Management	Robust management systems allow the rapid provision and deployment of new devices. Centralized management provides simplified monitoring of devices and threats while providing actionable reporting.

Ruggedized integrated Security Platform for Industrial Environments

- Supports Gigabit Ethernet through both Copper and Fiber connectivity.
- Runs Fortinet's FortiOS 5 – the world's most powerful security operating system. FortiOS 5 delivers better security to fight advanced threats, provides more control to secure your network's devices, and more intelligence to build better and more secure policies.
- FortiASIC SoC2 (System on a Chip) delivers unparalleled firewall and VPN performance.
- Backed by Fortinet's global FortiCare technical support and FortiGuard threat research teams for around-the-clock protection and support.



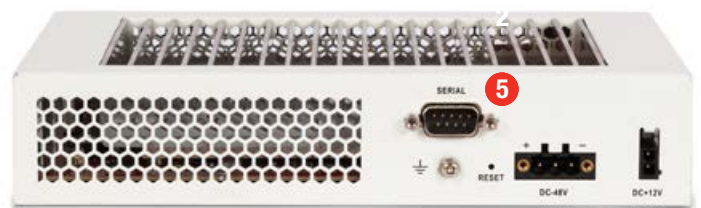
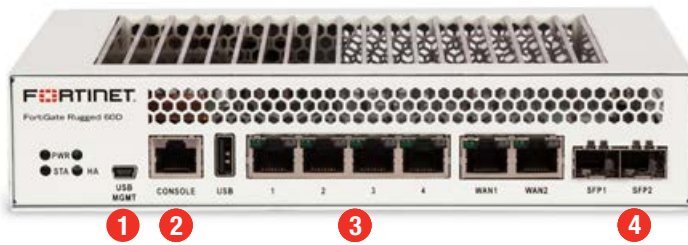
FortiCare Worldwide 24x7 Support
support.fortinet.com



FortiGuard Security Services
www.fortiguards.com


HARDWARE

FortiGate Rugged 60D



Interfaces

- | | |
|--|--|
| 1. USB Management Port for FortiExplorer | 4. 2x Shared Media (GE RJ45 ports/ GE SFP Slots) Pairs |
| 2. Console Port (RJ45) | 5. 1x DB9 Serial Interface |
| 3. 4x GE RJ45 Ports | |



Powered by FortiASIC SoC2

- Combines a RISC-based CPU with Fortinet’s proprietary FortiASIC™ content and network processors for unmatched performance
- Simplifies appliance design and enables breakthrough performance for smaller networks
- Supports firewall acceleration across all packet sizes for maximum throughput
- Delivers accelerated UTM content processing for superior performance and protection
- Accelerates VPN performance for high speed, secure remote access

Install in Minutes with FortiExplorer

The FortiExplorer wizard enables easy setup and configuration coupled with easy-to-follow instructions. FortiExplorer runs on both Microsoft Windows and Mac OS X computers as well as popular mobile devices like Android and iOS. Using FortiExplorer is as simple as starting the application and connecting to the appropriate USB port on the FortiGate. By using FortiExplorer, you can be up and running and protected in minutes.

Wireless and 3G/4G WAN Extensions

The FortiGate supports external 3G/4G modems that allow additional or redundant WAN connectivity for maximum reliability. The FortiGate can also operate as a wireless access point controller to further extend wireless capabilities.

Serial Interface for Legacy Connectivity

The FortiGate Rugged 60D comes equipped with a DB9 serial port interface that is commonly used along with the DNP3 protocol in many legacy industrial systems.

Compact, Ruggedized and Reliable Form Factor

Designed for confined spaces and harsh environments, the ruggedized FortiGate can be mounted within an enclosure, on a wall or on a DIN rail. It is small and lightweight yet highly reliable with superior Mean Time Between Failure (MTBF), minimizing the chance of a network disruption. The hardware components used meet high standards in both EMI and vibration tolerance with a wide thermal operating range supported.

HIGHLIGHTS

FortiOS — The World's Most Advanced Security Operating System

▪ Feature Select

Instantly fine-tunes the FortiGate based on desired deployment needs using feature presets. Simplifies user administration and configurations while providing flexibility for different deployment modes.

▪ Contextual Visibility

Presents critical deep insights into real-time network activities with data on threat details, IPs, users, devices, applications and more. Allows administrators to quickly understand threats and stop them.

▪ Advanced Security

Multiple advanced technologies can be coordinated to look for and stop today's blended, targeted or unknown attacks. Efficient packet handling improves performance while lowering latencies and reducing network complexities.

For complete, up-to-date and detailed feature set, please refer to the Administration Handbook and FortiOS Datasheet



FortiOS Dashboard — Single Pane of Glass Management

Industry Validated Best-in-Class Security

Our FortiGate appliances have earned more certifications than any other vendor by consistently and continually meeting rigorous third-party standards. Our many industry-leading security technologies such as firewall, IPS and antivirus provide organizations with air-tight security that you can safely depend on.

Scalable Centralized Management Support

Centrally manage any number of FortiGate devices across multiple locations with ease by using FortiManager. FortiManager allows administrators the ability to efficiently apply policies and to deploy security updates and firmware updates. FortiManager provides a wide number of deployment types, growth flexibility, as well as advanced customization through advanced APIs and simplified licensing. Additionally, it can serve as a central logging and reporting repository, providing much needed visibility and monitoring capabilities.

Complete and Real-Time Protection

Fortinet's FortiGuard Subscription Services provide automated, real-time and up-to-date protection against the latest security threats. Our threat research teams are located worldwide, providing around-the-clock support and updates in order to respond to breaking threats and events.

World-Class Technical Support and Documentation

Fortinet's FortiCare support offerings provide comprehensive global support for all of your Fortinet products and services. If the need arises, our teams of support staff are available to assist you anytime day or night to give you the assurance that your Fortinet products are performing optimally and providing the protection your infrastructure, users, applications and data demand.

IPS and Application Control Signatures Support List

Vendors/Applications:

7T Technologies/Schneider Electric, ABB, Advantech, Avahi, Broadwin, CoDeSys, Cogent, Control Automation, Datac, GE, Iconics, InduSoft, Intellicom, Measuresoft, Microsys, MOXA, PcVue, Progea, Promotic, RealFlex, Rockwell Automation, RSLogix, Siemens, Sunway, TeeChart, TwinCAT, WellinTech, xArrow

Protocols: BACnet, DNP3, ELCOM7, EtherCAT, EtherIP, ICCP, IEC.60870.5.104, IEC.61850, Modbus, OPC, PROFINET

SPECIFICATIONS

FGR-60D	
Interfaces and Modules	
GE RJ45 Interfaces	4
Shared Media Pairs (GE RJ45 / GE SFP)	2
DB9 Serial Interface	1
USB (Client / Server)	1/1
RJ-45 Console Port	1
System Performance and Capacity	
IPv4 Firewall Throughput (1518 / 512 / 64 byte, UDP)	1.5 / 1.5 / 1.5 Gbps
Firewall Latency (64 byte, UDP)	4 µs
Firewall Throughput (Packet per Second)	2.2 Mpps
Concurrent Sessions (TCP)	500,000
New Sessions/Sec (TCP)	4,000
Firewall Policies	5,000
IPsec VPN Throughput (512 byte)	1 Gbps
Gateway-to-Gateway IPsec VPN Tunnels	200
Client-to-Gateway IPsec VPN Tunnels	500
SSL-VPN Throughput	30 Mbps
Concurrent SSL-VPN Users (Recommended Maximum)	100
IPS Throughput	200 Mbps
Antivirus Throughput (Proxy Based / Flow Based)	35 / 50 Mbps
Virtual Domains (Default / Maximum)	10 / 10
Maximum Number of FortiAPs (Total / Tunnel)	10 / 5
Maximum Number of FortiTokens	100
Maximum Number of Registered Endpoints	200
High Availability Configurations	Active-Active, Active-Passive, Clustering

FGR-60D	
Dimensions and Power	
Height x Width x Length (inches)	1.73 x 8.50 x 6.10
Height x Width x Length (mm)	44 x 216 x 155
Form Factor	Desktop
Power Supply	-48V DC power supply and external 12V DC power adapter connection. AC adapter not included.*
Power Consumption (Average / Maximum)	11.6 W / 14 W
Maximum Current	-48V DC / 0.5A
Heat Dissipation	40 BTU/h
Operating Environment and Certifications	
Operating Temperature	-4–158°F (-20–70°C)
Storage Temperature	-40–185°F (-40–85°C)
Humidity	20–90% non-condensing
Operating Altitude	Up to 7,400 ft (2,250 m)
Compliance	FCC Part 15 Class A, C-Tick, VCCI, CE, UL/cUL, CB
Certifications	IEC 61850-3 (EMC) and IEEE 1613 Emission Compliant ICSA Labs: Firewall, IPsec, IPS, Antivirus, SSL-VPN

* Power supplies do not operate in redundant mode. Third-party AC adapter is required and may affect systems compliance with Industrial standards.

Note: All performance values are "up to" and vary depending on system configuration. Antivirus performance is measured using 44 Kbyte HTTP files. IPS performance is measured using 1 Mbyte HTTP files. IPsec VPN performance is based on 512 byte UDP packets using AES-256+SHA1.

For complete, up-to-date and detailed feature set, please refer to the Administration Handbook and FortiOS Datasheet.

ORDER INFORMATION

Product	SKU	Description
FortiGate Rugged 60D	FGR-60D	Ruggedized, 4x GE RJ45 Switch ports, 2x Shared Media pairs (including 2x GE RJ45 ports, 2x SFP slots). DB9 Serial. Maximum managed FortiAPs (Total/Tunnel) 10/5.
Product		
SFP SX Transceiver Module	FG-TRAN-SX	Transceiver SX module for all models with SFP interfaces.
SFP LX Transceiver Module	FG-TRAN-LX	Transceiver LX module for all models with SFP interfaces with LC connector.



GLOBAL HEADQUARTERS
Fortinet Inc.
899 Kifer Road
Sunnyvale, CA 94086
United States
Tel: +1.408.235.7700
www.fortinet.com/sales

EMEA SALES OFFICE
120 rue Albert Caquot
06560, Sophia Antipolis,
France
Tel: +33.4.8987.0510

APAC SALES OFFICE
300 Beach Road 20-01
The Concourse
Singapore 199555
Tel: +65.6513.3730

LATIN AMERICA SALES OFFICE
Prol. Paseo de la Reforma 115 Int. 702
Col. Lomas de Santa Fe,
C.P. 01219
Del. Alvaro Obregón
México D.F.
Tel: 011-52-(55) 5524-8480