

FortiSwitchRugged 112D-POE

Register for Support

Register your Fortinet product to receive:

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- New product features
- Protection from new threats

Vous devez enregistrer le produit pour recevoir:

- Support technique
- Nouvelles fonctionnalités du produit
- Protection contre de nouvelles menaces

La registrazione ti permette di usufruire di:

- Supporto Tecnico
- Nuove funzionalità
- Protezione dalle ultime minacce

Debe registrar el producto para recibir:

- Apoyo técnico
- Nuevas funcionalidades del producto
- Protección contra ataques

登録のお願い

本日、フォーティネット製品の登録をしてください。

登録すると次のメリットがあります。

テクニカルサポート・新機能の追加・新しい脅威への防御

请马上注册

您的飞塔产品

您在注册以后才能得到技术支持、新产品特点信息、最新威胁防护



April 10, 2023

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For Product License Agreement / EULA and Warranty Terms, visit <https://www.fortinet.com/content/dam/fortinet/assets/legal/EULA.pdf>

<https://support.fortinet.com>

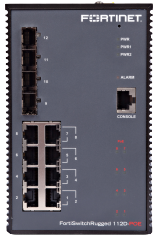
Toll free: 1 866 648 4638

Phone: 1 408 486 7899

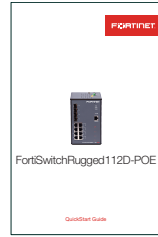
Fax: 1 408 235 7737

Email: register@fortinet.com

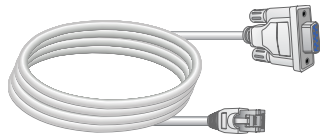
Box Includes



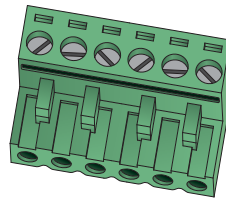
FortiSwitch Rugged 112D-POE



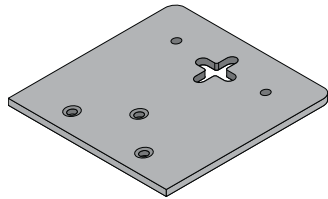
QuickStart Guide



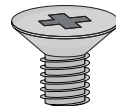
Console Cable



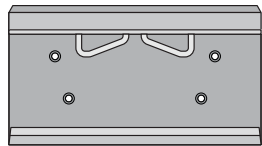
Power Connector



2 Wall Mount Brackets

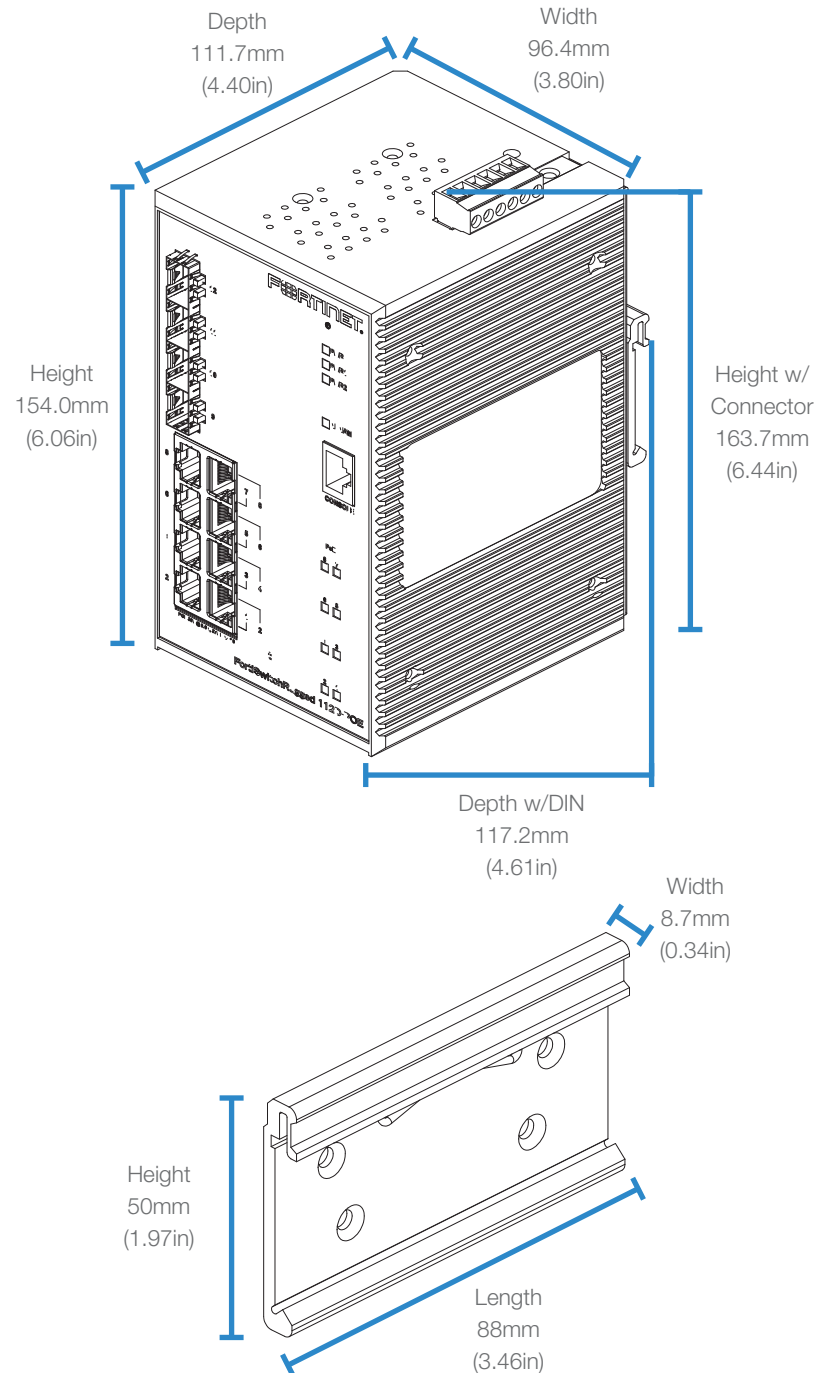


6 Bracket Screws
(M3 x 5mm, Flat head)



DIN Rail Bracket

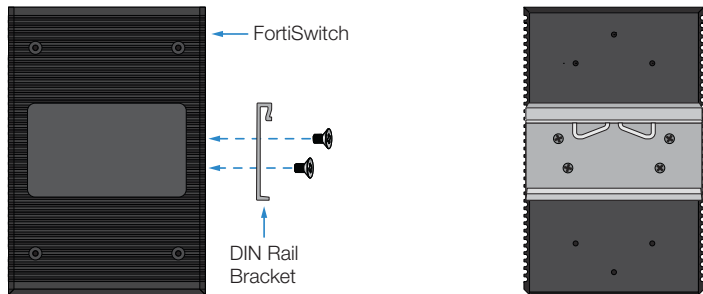
Dimensions



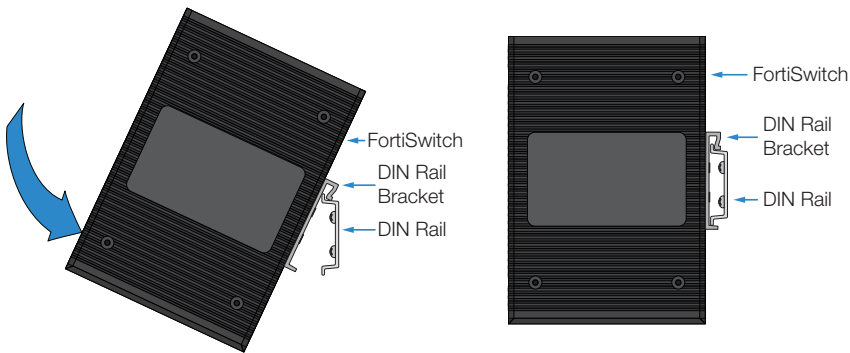
1 Installation

Using the provided hardware, the device can be mounted on a DIN rail or to a wall. Note that M3 x 5mm have been provided for the DIN rail, but you will need to supply your own wall mount and anchors screws.

To mount the device on a DIN rail



1. Connect the DIN rail bracket to the device using the provided bracket screws.
2. Position the device directly in front of the DIN rail, ensuring that the top of the DIN rail bracket hooks over the top of the DIN rail.



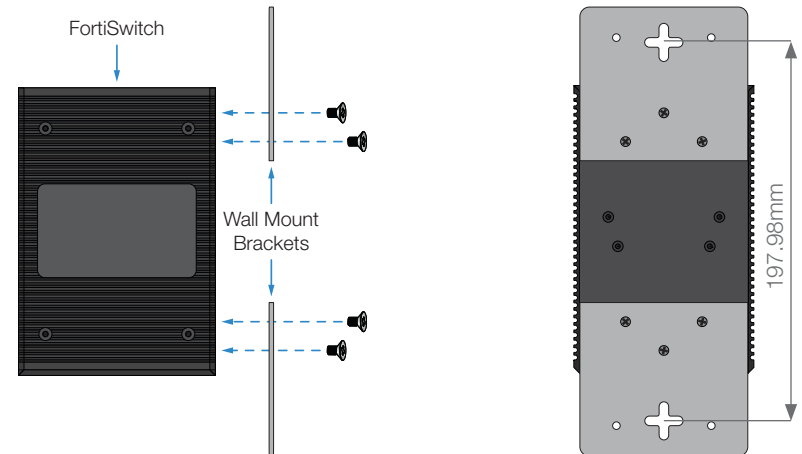
3. Rotate the device until the bottom of the DIN rail bracket sits against the bottom of the DIN rail.

You can now proceed with connecting your device.

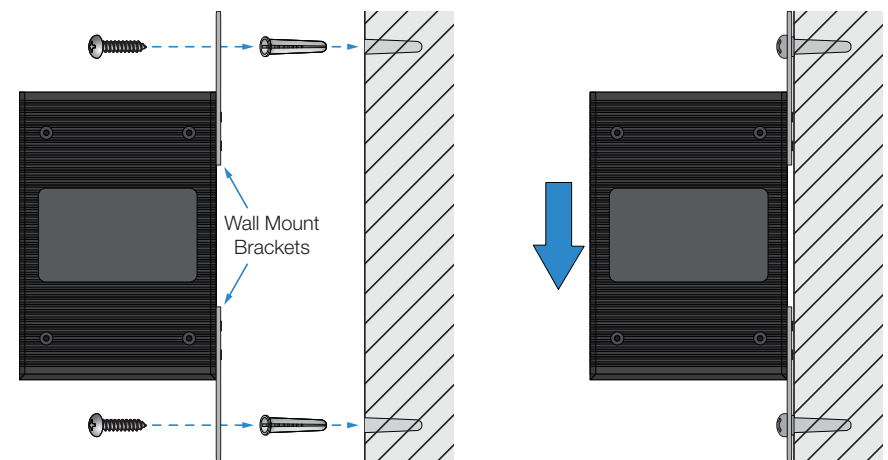
Note: This equipment is not suitable for use in locations where children are likely to be present.

To mount the device to a wall

1. Connect the wall mount brackets to the device using all of the provided brackets screws.



2. Hold the device with the attached wall mount brackets against the wall in the desired mounting location and mark the locations for the two anchors.
3. Using an appropriate drill, insert the mounting anchors into the wall at the marked locations.
4. Screw the device into the anchors, then slide it downwards to secure it in place.



You can now proceed with connecting your device.

2 Basic Connections

Network Connection

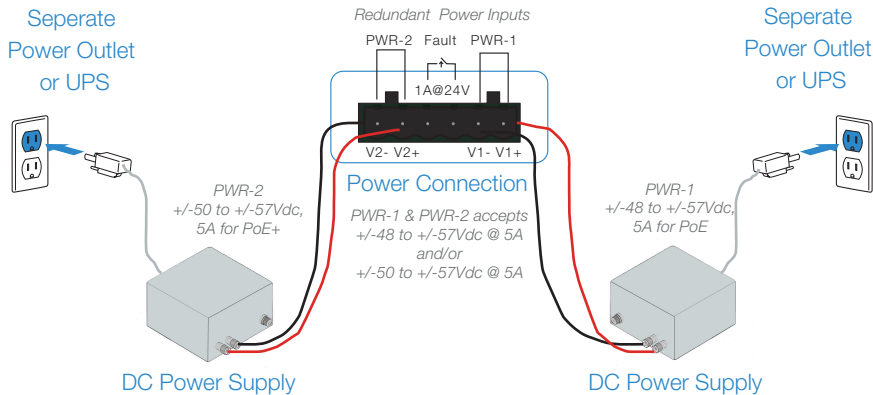
Connect the [Ethernet Port](#) to a [network appliance](#) using an Ethernet cable

Power Connection

In systems configured with the redundant power option, connect PWR1 and PWR2 to [separate independent power sources](#) for power redundancy. The FSR-112D-POE supports +/-48V to +/-57V DC for the PoE output, +/-50V to +/-57V DC for the PoE+ output and +/-12 to +/-57 DC for non-PoE operations.

Warning:

- This product is intended to be UL Listed supplied by a Power Adapter or DC power source which output complies with ES1/SELV: ambient temperature 75°C minimum, output rating 48-57 Vdc, 5A minimum.
- If using Class I power adapter or Class I DC power source, power cord shall be connected to a socket-outlet with earthing connection.

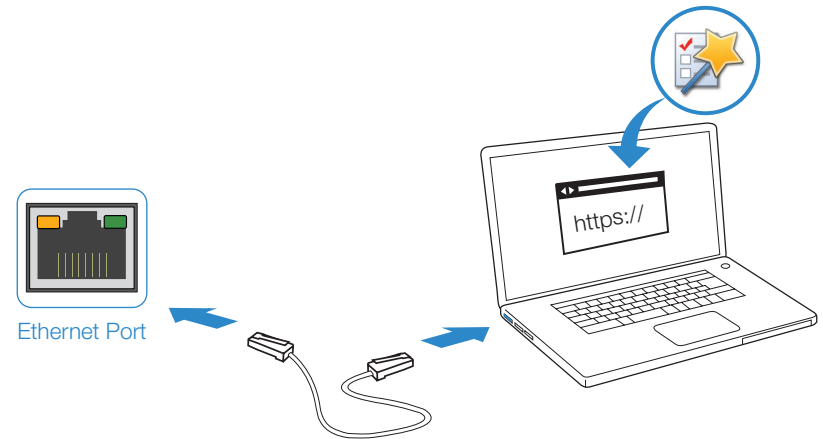


Caution: The wiring of input terminal block shall be installed by skill person.
b. Terminal block is mating with Plug and suitable for 12-28AWG, Wire Type: Cu, FW2. Torque value 4.5 lb-in.

Note: The FortiSwitchRugged 112D-POE device does not support interconnectivity to other FortiSwitchRugged 112D-POE devices using the PoE ports. Fortinet recommends using the SFP ports to interconnect switches.

3 Setup Options

Web Browser



To Connect to the GUI

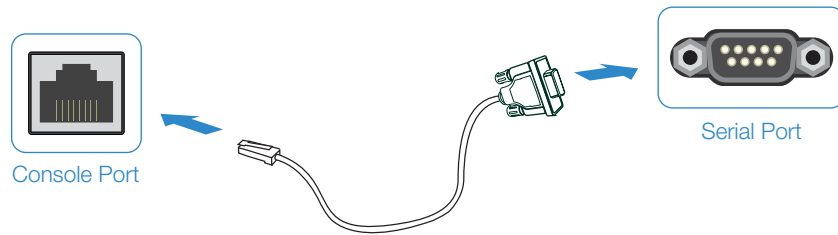
1. Connect the [Ethernet cable](#).
2. Configure the management computer to be on the same [subnet](#) as the internal interface as the FortiSwitch Rugged unit:

IP address: 192.168.1.2

Netmask: 255.255.255.0

3. Visit [192.168.1.99](#) in your web browser.
4. Login using username "admin" and [no password](#).
5. [Configure your device](#) and save your settings.
6. [Register your device](#) from the dashboard page.

Terminal Emulation



To Connect to the CLI

1. Connect the device's [console port](#) to the management computer using the provided [console cable](#).
2. Start a [terminal emulation program](#) on the management computer, select the [COM port](#), and use the following settings:

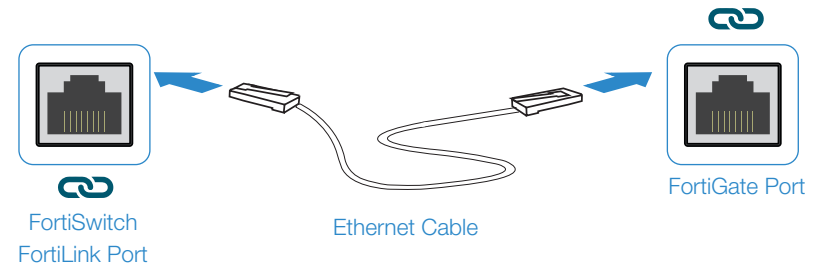
Baud Rate: 115200
Data bits: 8
Parity: None
Stop bits: 1
Flow Control: None

3. Press [Enter](#) on your keyboard to [connect to the CLI](#).
4. Login using username "[admin](#)" and no password. You can now proceed with configuring your device.

Get started by typing "?" for a list of available [commands](#).

Begin typing a command then type "?" for a list of available ways to complete. For example "[config ?](#)" will show the lowest level of configuration options.

FortiLink



1. Connect a [FortiSwitch FortiLink Port](#) directly using an Ethernet Cable to a [FortiGate FortiLink Port](#) or any FortiGate Port that is not an HA port
2. Login to the FortiGate and go to the [WiFi & Switch Controller --> FortiLink Interface](#)
3. [Add a FortiGate Port](#) in the FortiLink interface and choose [Automatically authorize devices](#)
4. When the [FortiSwitch is online](#) in the [WiFi & Switch Controller --> Managed FortiSwitch](#) section, you can now manage your FortiSwitch

Cloud Management

(Connect a port to the Internet)

1. Visit support.fortinet.com to register your device and cloud management license
2. Sign in at <https://fortilan.forticloud.com> to manage your Inventory List

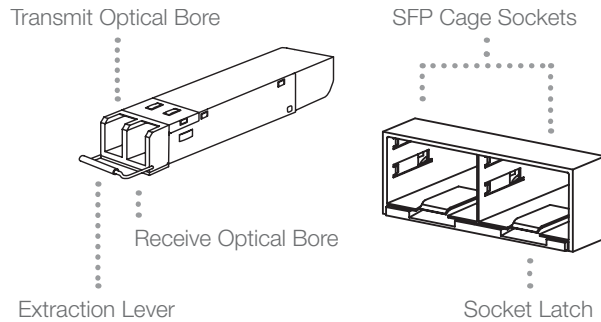
SFP Transceivers

Warning: Laser Class 1 optical transceiver shall be used only.

Caution: SFP transceivers are static sensitive devices. Use an ESD wrist strap or similar grounding device when handling transceivers.

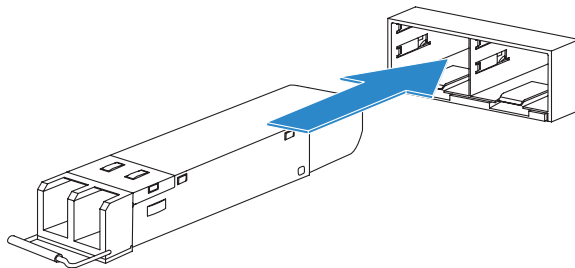
Do not force the SFP transceivers into the cage slots. If the transceiver does not easily slide in and click into place, it may not be aligned correctly or may be upside down. If this happens, remove the SFP transceiver, realign it or rotate it and slide it in again.

Note: Installing and removing SFP transceivers can shorten their useful life. Do not install or remove transceivers more than is necessary.



To install the SFP transceivers

1. Ensure that you are properly grounded.
2. Remove the caps from the SFP cage sockets on the front panel of the unit.
3. Position the SFP transceiver in front of the cage socket opening and ensure that the transceiver is correctly oriented. When the transceiver is correctly oriented, the extraction lever will be level with the socket latch.
Note: SFP cage socket orientation may vary. Ensure that the SFP transceiver module is correctly oriented each time that you are inserting a transceiver.
4. Hold the sides of the SFP transceiver and slide it into the cage socket until it clicks into place.

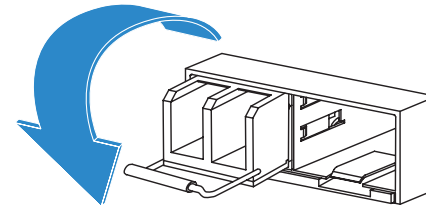


5. Press the transceiver firmly into the cage socket with your thumb.

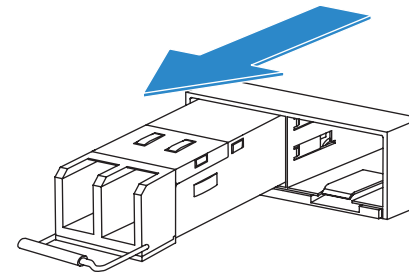
6. Verify that the transceiver is latched correctly by grasping the sides of the transceiver and trying to pull it out without lowering the extraction lever. If the transceiver cannot be removed, it is installed and latched correctly. If the transceiver can be removed, reinsert it and press harder with your thumb. If necessary, repeat this process until the transceiver is securely latched into the cage socket.

To remove the SFP transceivers

1. Ensure that you are properly grounded.
2. If applicable, disconnect the fiber-optic cable from the transceiver connector and install a clean dust plug in the transceiver's optical bores.
3. Pull the extraction lever out and down to eject the transceiver. If you are unable to use your finger to open the lever, use a small flat-head screwdriver or other similar tool to open the lever.



4. Hold the sides of the transceiver and carefully pull it away from the cage socket.



5. Replace the cap on the SFP cage socket and place the removed SFP transceiver into an antistatic bag.

Caution: Do not install or remove SFP transceivers while fiber-optic cables are still attached. This can cause damage to the cables, cable connectors, and the optical interfaces. It may also prevent the transceiver from latching correctly into the socket connector.

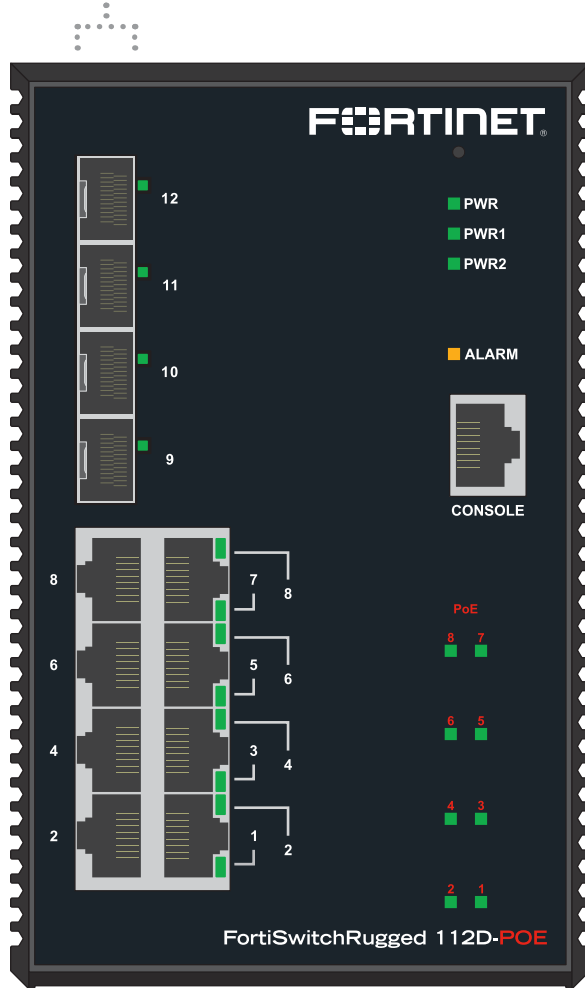
Note: Follow proper fiber-optic handling procedures when installing and removing SFP transceivers to ensure the devices remain clean and are not damaged.

SFP Ports (SFP)

1Gbps small form-factor pluggable transceiver ports



CAUTION: Hot surface! Do not touch.
Attention: Surface chaude! Ne pas toucher



Console (RJ-45)

Optional connection to the management computer. Provides access to the CLI



Ethernet Ports (RJ-45)

Gigabit Ethernet ports with Power over Ethernet (PoE) providing up to a maximum of 240W (PoE+) or 123.2W (PoE). Max. 30 W per port for PoE+; Max. 15.4 W per port for PoE.

Fault Relay (2ESDV-06P)

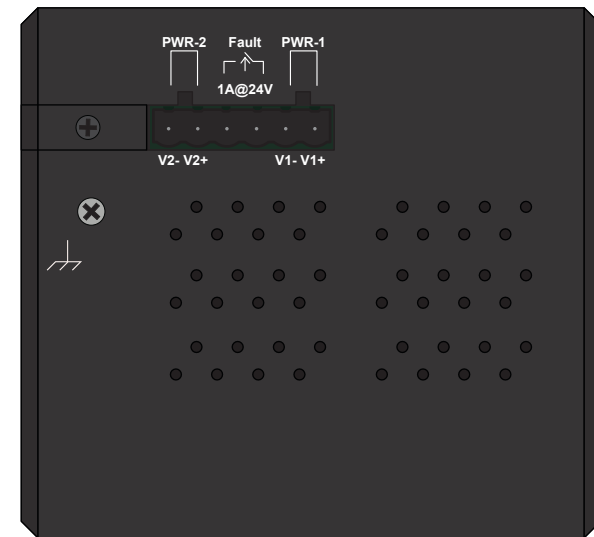
Fault event signal interface

Power Input 2 (2ESDV-06P)

+/- 50-57V DC, 5A
For PoE+ output

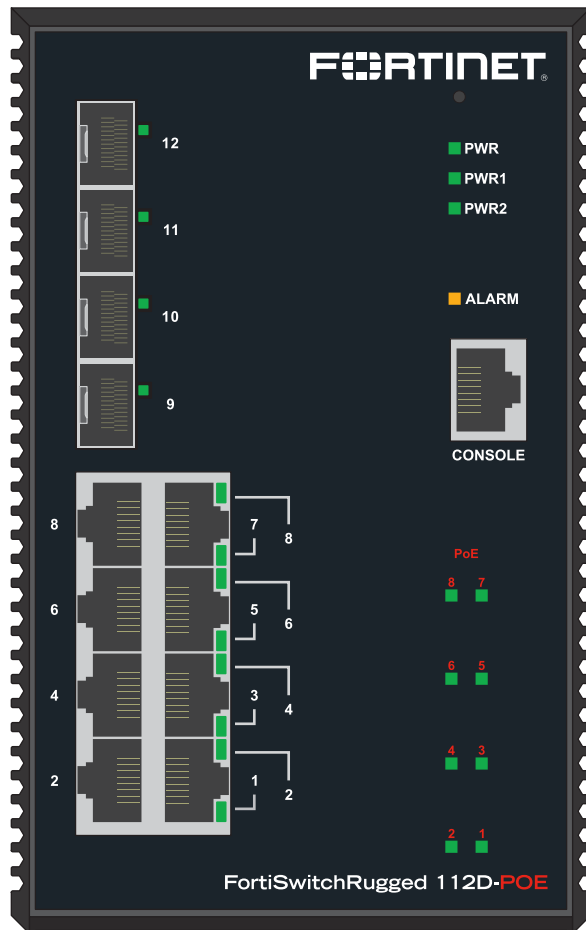
Power Input 1 (2ESDV-06P)

+/- 48-57V DC, 5A
For PoE output



SFP Ports

- Green: Connected
- Flashing Green: Transmitting & receiving data
- Off: No link established



PWR 0 to 2

- Green: Power on
- Off: Power off

Alarm

- Amber: System abnormal
- Off: The unit is operating normally

PoE

- Green: Power being provided
- Off: Power not being provided


Ethernet Ports Link/Activity

- Green: Connected
- Flashing Green: Transmitting & receiving data
- Off: No link established

Cautions and Warnings

Environmental Specifications

Operating temperature -40°C to 75°C

 **CAUTION:** Hot surface! Do not touch.
Attention: Surface chaude! Ne pas toucher.

Refer to specific Product Model Data Sheet for Environmental Specifications (Operating Temperature, Storage Temperature, Humidity, and Altitude).
Référez à la Fiche Technique de ce produit pour les caractéristiques environnementales (Température de fonctionnement, température de stockage, humidité et l'altitude).

Safety

Warning: Equipment intended for installation in Restricted Access Location.

Avertissement: Le matériel est conçu pour être installé dans un endroit où l'accès est restreint.

Warning: A readily accessible disconnect device shall be incorporated in the building installation wiring.

Avertissement: Un dispositif de déconnexion facilement accessible doit être incorporé dans l'installation électrique du bâtiment.

Battery – Risk of explosion if the battery is replaced by an incorrect type. Do not dispose of batteries in a fire. They may explode. Dispose of used batteries according to your local regulations. IMPORTANT: Switzerland: Annex 4.10 of SR814.013 applies to batteries.

Batterie – Risque d'explosion si la batterie est remplacée par un type incorrect. Ne jetez pas les batteries au feu. Ils peuvent exploser. Jetez les piles usagées conformément aux réglementations locales. IMPORTANT: Suisse: l'annexe 4.10 de SR814.013 s'appliquent aux batteries.

警告
本電池如果更換不正確會有爆炸的危險
請依製造商說明書處理用過之電池

Caution: This equipment is to be used in a Network Environment 0 per IECTR 62101. This product is connected only to PoE networks without routing to the outside plant.

Attention: Ce matériel doit être utilisé dans un Environnement Réseau 0 par IECTR 62101. Ce produit est uniquement connecté aux réseaux PoE sans installation externe de routage.

This equipment is an open-type device to be installed in an enclosure only accessible with the use of a tool, suitable for the environment.

Cet équipement est un système ouvert, qui doit être installé dans un endroit clos et accessible uniquement via l'usage d'un outil, adapté à l'environnement.

This product is intended to be supplied by 55Vdc from Secondary DC Mains Supply or by a UL Listed / IEC Certified ITE AC/DC adaptor rated output 55Vdc, 0.6A min, T_{am} = 40°C, (marked LPS or Class 2).

Ce produit doit être alimenté par 55 Vdc d'un réseau d'alimentation secondaire en courant continu ou par une alimentation à puissance limitée (UL Listed) ou par une alimentation Class 2 certifié par IEC de 55 Vdc, 0.6A, 40°C, (marquée LPS ou Class 2).

PoE input cable type should be CL3, CL3P, CL3R, CL3X, marked "SUNLIGHT RESISTANT", "SUN. RES.", or "SR." and "water resistant" or "W".

Le type de câble d'entrée PoE doit être CL3, CL3P, CL3R, CL3X, marqué « »
Sunlight resistant : résistant à la lumière du soleil
Water resistant : résistant à l'eau

Warning: Cable temperature >95.1°C.
Attention: Température du câble >95,1°C.

WARNING - NOT FOR USE IN HAZARDOUS LOCATIONS. SEE INSTALLATION INSTRUCTIONS.

ATTENTION - NE PAS UTILISER DANS DES ENDROITS DANGEREUX. Consulter la notice d'installation.

This equipment is suitable for use in Class I, Division 2, Groups A, B, C, and D or non-hazardous locations only.

Cet équipement peut être utilisé en Classe I, Division 2, Groupes A, B, C et D ou aux endroits non-dangereux seulement "

WARNING - EXPLOSION HAZARD – Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous.

ATTENTION - RISQUE D'EXPLOSION - Déconnecter l'appareil uniquement après avoir coupé l'alimentation électrique ou avoir vérifié qu'il n'est pas installé en zone dangereuse.

WARNING - EXPLOSION HAZARD – Substitution of any components may impair suitability for Class I, Division 2.

ATTENTION - RISQUE D'EXPLOSION - La substitution de composants peut compromettre l'adéquation pour Class I, Division 2.

WARNING – EXPOSURE TO SOME CHEMICALS MAY DEGRADE THE SEALING PROPERTIES OF MATERIALS USED IN THE FOLLOWING DEVICES: Sealed Relay Device.

ATTENTION - Exposition à certaines substances chimiques peut entraîner la dégradation l'étanchéité des matériaux utilisés dans le dispositif suivant: le relais hermétique

Console port is for maintenance purposes only. It may only be used when the area is known to be non-hazardous.

Connexion du port de la console est utilisée à des fins de maintenance uniquement. Son usage est réservé uniquement dans une zone non dangereuse.

Grounding — To prevent damage to your equipment, connections that enter from outside the building should pass through a lightning / surge protector, and be properly grounded. Use an electrostatic discharge workstation (ESD) and/or wear an anti-static wrist strap while you work. In addition to the grounding terminal of the plug, on the back panel, there is another, separate terminal for earthing.

Mise à la terre — Pour éviter d'endommager votre matériel, assurez-vous que les branchements qui entrent à partir de l'extérieur du bâtiment passent par un parafoudre / parasurtenseur et sont correctement mis à la terre. Utilisez un poste de travail de décharge électrostatique (ESD) et / ou portez un bracelet anti-statique lorsque vous travaillez. Ce produit possède une borne de mise à la terre qui est prévu à l'arrière du produit, à ceci s'ajoute la mise à la terre de la prise.

This product has a separate protective earthing terminal provided on the back of the product in addition to the grounding terminal of the attachment plug. This separate protective earthing terminal must be permanently connected to earth with a green with yellow stripe conductor minimum size # 14 AWG and the connection is to be installed by a qualified service personnel.

Ce produit a une borne de mise à la terre séparé sur le dos de l'appareil, en plus de la borne de mise à la terre de la fiche de raccordement. Cette borne de mise à la terre séparée doit être connecté en permanence à la terre avec un conducteur vert avec la taille bande jaune de minimum # 14 AWG et la connexion doit être installé par un personnel qualifié.

Regulatory Notices

Federal Communication Commission (FCC) – USA

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received; including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

WARNING: Any changes or modifications to this product not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Industry Canada Equipment Standard for Digital Equipment (ICES) – Canada

CAN ICES-003 (A) / NMB-003 (A)

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Cet appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

European Conformity (CE) - EU

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.



Voluntary Control Council for Interference (VCCI) – Japan

この装置は、クラスA機器です。この装置を住宅環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

V C C I – A

Bureau of Standards Metrology and Inspection (BSMI) – Taiwan

The presence conditions of the restricted substance (BSMI RoHS table) are available at the link below:
限用物質含有情況表 (RoHS Table) 請到以下 網址下載:
<https://www.fortinet.com/bsmi>

警告： 為避免電磁干擾，本產品不應安裝或使用於住宅環境。

請仔細閱讀以下說明
本設備勿置於潮濕處。
連接至電源前，請先檢查電壓。
當設備不用時，請將所有電源線拔除，避免電壓不穩而造成傷害。
勿將任何液體滲入設備中，避免線路短路。
基於安全理由，只有受到專業訓練的從業人員，才可以打開本設備。
請勿自行調整或修理已通電的設備，以確保您的安全。
如不小心受傷，請立刻找急救人員給予您適當的救護，千萬別因傷勢輕微而忽略自己的傷勢。

請依照台灣法規處置電池。
若不正确替換電池可能導致爆炸危險，替換電池時，請使用設備生產商推薦使用的電池。
請勿拆卸、刺穿或以其他方式損壞電池。

雷射設備非用戶維修設備，請與生產商聯繫維修事宜。

注意：要斷開電源，請將所有電源線從本機上拔下

英屬蓋曼群島商防特網股份有限公司台灣分公司
地址：台北市內湖區行愛路176號2樓
電話：(02) 27961666

China

警告：在居住环境中，运行此设备可能会造成无线电干扰。

Agência Nacional de Telecomunicações (ANATEL) – Brazil

Este produto não é apropriado para uso em ambientes domésticos, pois poderá causar interferências eletromagnéticas que obrigam o usuário a tomar medidas necessárias para minimizar estas interferências."

Para maiores informações, consulte o site da ANATEL www.gov.br/anatel/pt-br/

Fortinet Customer Service & Support

Create a support account, register and manage your products, download updates, firmware images and release notes, and create technical support tickets.

<https://support.fortinet.com>

Fortinet Document Library

Up-to-date versions of Fortinet publications for the entire family of Fortinet products.

<http://docs.fortinet.com>

Training Services

Course descriptions, availability, schedules, and location of training programs in your area.

<http://www.fortinet.com/support/training.html>

Technical Discussion Forums

Communicate with other customers and Fortinet partners about Fortinet products, services, and configuration issues.

<https://support.fortinet.com/forum>

FortiGuard Threat Research and Response

Up-to-date information on vulnerabilities and threats, includes a virus scanner, IP signature look-up, and web filtering tools.

<http://www.fortiguard.com>