VOLKTEK

INS-8224P QIG

1. Overview

The INS-8224P Unmanaged PoE+ Switch is designed for harsh environments to withstand vibration, shock, free fall and power surges. The switch is equipped with 4-port 10/100/1000Mbps PoE+ downlink and 2-port GbE SFP uplink for smart surveillance applications. This switch provides a total PoE power budget of 120 W, with up to 30 W available per PoE port.

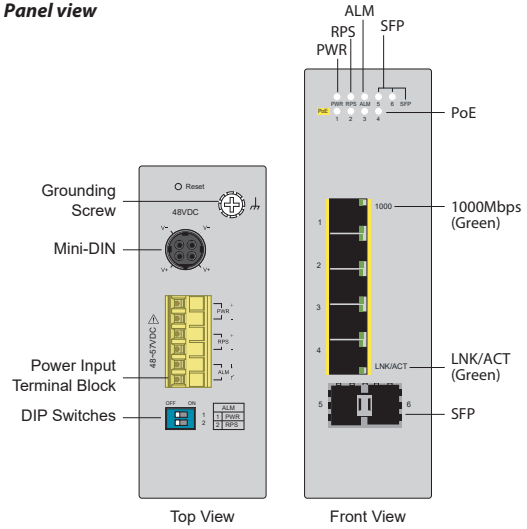
2. Package Checklist

The switch is shipped with the following items*.
If any of these are missing or damaged, please contact your customer service representative for assistance.

- The Switch x 1
- DIN-Rail kit x 1
- Quick Installation Guide x 1

* Contents of the package can be adjusted based on customer demand.

Panel view



3. Mounting and Dismounting to DIN-Rail

ATTENTION:
The Switch is an open type device and shall be DIN-Rail mounted in the cabinet and the ambient temperature should not exceed the operating temperature.

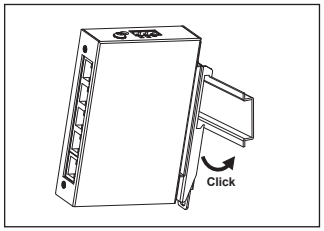
ATTENTION :
L'interrupteur est un dispositif ouvert et doit être monté sur rail DIN dans l'armoire. La température ambiante ne doit pas dépasser la température de fonctionnement.

Mounting the switch

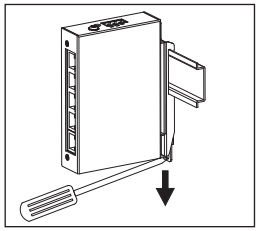
Place the switch on the DIN-Rail from above using the slot, push the front of the switch toward the mounting surface until it snaps into place with a click sound.

Dismounting the switch

Press the switch from top and pull out the lower edge of the switch and then remove the switch from the DIN rail.



Mounting the Firewall (illustration)



Removing the Firewall (illustration)

ATTENTION:
A corrosion-free mounting rail is advisable.
When installing, make sure to allow for enough space between devices to properly install the cabling. And provide ample space for air flow.

ATTENTION :
Il est recommandé d'utiliser un rail de montage résistant à la corrosion. Lors de l'installation, veillez à laisser suffisamment d'espace entre les appareils pour permettre le bon passage du câblage. Assurez-vous également d'avoir suffisamment d'espace pour la circulation de l'air.

4. Grounding the switch

Grounding and wire routing help limit the effects of noise due to electromagnetic interference (EMI). Run the ground connection from the ground screw to the grounding surface prior to connecting devices.

ATTENTION:
This product is intended to be mounted to a well-grounded mounting surface such as a metal panel.

ATTENTION:
Ce produit est conçu pour être monté sur une surface de montage correctement mise à la terre, telle qu'un panneau métallique.

5. Wiring requirements

WARNING:
Safety measures should be taken before connecting the power cable. Turn off the power before connecting modules or wires. The correct power supply voltage is listed on the product label. Check the voltage of your power source to

make sure that you are using the correct voltage. DO NOT use a voltage greater than what is specified on the product label. Calculate the maximum possible current in each power wire and common wire. Observe all electrical codes dictating the maximum current allowable for each wire size. If current exceeds the maximum rating, the wiring can overheat causing serious damage to your equipment.

AVERTISSEMENT:
Prenez des mesures de sécurité avant de brancher le câble d'alimentation. Coupez l'alimentation avant de connecter des modules ou des câbles. La tension d'alimentation correcte est indiquée sur l'étiquette du produit. Vérifiez la tension de votre source d'alimentation pour vous assurer que vous utilisez la tension correcte. N'utilisez PAS une tension supérieure à celle indiquée sur l'étiquette du produit. Calculez l'intensité maximale possible dans chaque fil d'alimentation et fil commun. Respectez tous les codes électriques qui imposent l'intensité maximale autorisée pour chaque section de fil. Si l'intensité dépasse la valeur nominale maximale, le câblage peut surchauffer et endommager gravement votre équipement.

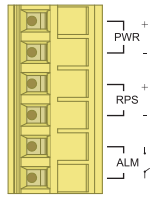
Please read and follow these guidelines:

- Use separate paths to route wiring for power and devices. If power wiring and device wiring paths must cross make sure the wires are perpendicular at the intersection point.
  NOTE: Do not run signal or communications wiring and power wiring through the same wire conduit. To avoid interference, wires with different signal characteristics should be routed separately.
- You can use the type of signal transmitted through a wire to determine which wires should be kept separate. The rule of thumb is that wiring that shares similar electrical characteristics can be bundled together.
- You should separate input wiring from output wiring.
- We advise that you label the wiring to all devices in the system.

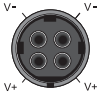
5.1 Wiring Power Input

5.1.1 The Switch with terminal block

You can use either "mini-DIN" or "Terminal Block (PWR)" for primary power and "Terminal Block (RPS)" for secondary power source, to be a Redundant Power Input. Check the polarity while connecting. Top views of mini-DIN and Terminal Block are as shown in the image below:



Terminal Block



Mini-DIN

Caution:

- Use copper conductors only
- Wiring cable temperature should support at least **105℃**
- Tighten the wire to a torque value **5lb**
- The wire gauge for the terminal block should range between **12~18 AWG**

Attention :

- Utiliser uniquement des conducteurs en cuivre.
- La température du câble doit être d'au moins **105 ℃**.
- Serrer le fil à un couple de **5lb**.
- Le calibre du fil du bornier doit être compris entre **12 et 18 AWG**.

To insert the power wire and connect the specified voltage range and maximum electric current to the power terminal block, follow the steps below:

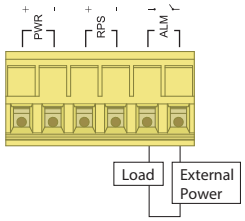
1. Use a flat-head screwdriver to loosen the wire-clamp screws.
2. Insert the negative/positive DC wires into the PWR-/PWR+ terminals, respectively.
3. Tighten the wire-clamp screws to prevent the wires from loosening.

ATTENTION:
Please use a power supply from 48~57VDC, 3A maximum. The power device shall be supplied by SELV circuit.

ATTENTION:
Veuillez utiliser une alimentation de 48 à 57 VCC, 3 A maximum. L'appareil doit être alimenté par un circuit SELV.

NOTE: We strongly request that each Industrial PoE switch connects to an individual power supply. Please don't connect one power supply to two or more PoE switches at a time.

5.2 Wiring the relay contact (ALM)



Relay rating: 24V, 1A

The switch has one set of relay alarm output. This relay contact uses two contacts of the terminal block on the switch top panel. The two contacts of the terminal block connector are used to detect user-configured events. The two wires attached to the fault contacts form an open circuit when a user-configured event is triggered. If a user-configured event does not occur, the fault circuit remains closed.

5.3 Cabling RJ45

Connect one end of an Ethernet/RJ45 cable into the Ethernet port of the switch and the other end to the attached networking device.

- Ports 1-4 support 10/100/1000Mbps speeds.
- Ports 5-6 support Gigabit speeds.
- All the RJ45 ports on the switch support auto-negotiation and auto MDI/MDI-X to eliminate the need for crossover cabling.

* Category 5e cable or above should be used.

6. DIP Switch Setting



1	PWR	ON: Primary power alarm reporting is enabled
		OFF: Primary power alarm reporting is disabled
2	RPS	ON: Redundant power alarm reporting is enabled
		OFF: Redundant power alarm reporting is disabled

7. LED Indicators

PWR (Green)	Illuminated	Primary power on
	Off	Primary power off or failure
RPS (Green)	Illuminated	Redundant power on
	Off	Redundant power off or failure
ALM (Red)	Illuminated	Alarm triggered for abnormal power status or enabled anomalous features
	Off	Normal operation or DIP switch OFF
PoE (Green) (1~4th RJ45 port)	Illuminated	Supplying power to powered device (PD)
	Off	PoE power feeding is off or not supplied
1000 (Green) (1~4th RJ45 port)	Illuminated	Link speed at 1000Mbps
	Off	Link speed at 10/100Mbps
LNK/ACT (Green) (1~4th port)	Illuminated	Port link-up
	Blinking	Activity (receiving or transmitting data)
	Off	Port disconnected or link failed
SFP (Green) (5~6th Fiber port)	Illuminated	Port link-up
	Blinking	Activity (receiving or transmitting data)
	Off	Port disconnected or link failed

8. Environmental limits

Operating Temperature	-10°C~60°C (14°F~140°F)
Storage Temperature	-40°C~85°C (-40°F~185°F)
Ambient relative humidity	5 to 95% (non condensing)

NOTE:

- *The highest degree of temperature operation certified by UL is -10˚C~60˚C (14°F~140°F).*
- *Two switches must be installed at least 50 mm apart.*

ATTENTION:
This device complies with Part 15 of the FCC rules. Operation is subject to the following conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received including interference that may cause undesired operation.

ATTENTION :
Cet appareil est conforme à la partie 15 de la réglementation FCC.
Son utilisation est soumise aux conditions suivantes :
1. Cet appareil ne doit pas provoquer d'interférences nuisibles.
2. Cet appareil doit tolérer toute interférence reçue, y compris celles pouvant entraîner un fonctionnement indésirable.

ATTENTION:
If the equipment is used in a manner not specified by VOLKTEK, the protection provided by the equipment may be impaired.

ATTENTION:
Si l'équipement est utilisé d'une manière non spécifiée par VOLKTEK, la protection offerte par l'équipement peut être altérée.

ATTENTION:
Please leave at least 5cm of space at the left and right of the unit for ventilation.

ATTENTION:
Veuillez laisser au moins 5 cm d'espace à gauche et à droite de l'appareil pour la ventilation.

LIMITED WARRANTY

VOLKTEK Corporation warrants this product against defect in materials and workmanship for a period of FIVE (5) YEARS to the original purchaser.

If you discover a defect, VOLKTEK will, at its sole option, repair or replace the product at no additional charge, provided that you contact VOLKTEK technical support to obtain a Return Merchandise Authorization Number (RMA) and instruction on how and where repairs can be made. This warranty does not apply if the product has been damaged by accident, abuse, misuse, misapplication, neglect, fire, water, lightning or other acts of nature, failure to follow supplied instructions, installation or removal, have been repaired or have undergone attempted repair by unauthorized personnel without written consent from VOLKTEK, modified, defaced, or has its serial numbers removed. VOLKTEK reserves the right to use remanufactured, refurbished, or used parts and components in making warranty repairs.

All expressed or implied warranties for this product, including the implied warranties of merchantability and fitness for a particular purpose are limited in duration to the warranty period. No warranties expressed or implied will applied after this period. VOLKTEK shall not be liable for lost profits, damage to other property caused by any defects of this product, or damages based upon inconvenience, loss of product use, loss of time, commercial use, incidental and/or consequential damages for the breach of any expressed or implied warranty, including damages to property, and to the extent permitted by law, damages for personal injury, even if VOLKTEK has been advised of the responsibilities of such damages.

If you have any further questions, please contact Customer Support:

Address of the manufacturer.

VOLKTEK CORPORATION
4F, 192 Liancheng Rd, Zhonghe, New Taipei 23553, Taiwan
Email: support@volktek.com
Tel: +886-2-8242-1000
Fax: +886-2-8242-3333

v1.3
M64-0000000-163