IES-0610 V2

User Manual

6-Port Gigabit PoE Industrial Switch, 802.3at/af PoE, 4 PoE Outputs, 1 x SFP, 1 x SFP/RJ45 Combo, -40°C to 75°C, DIN-Rail, 126W

FCC MARKING

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 not installed and used in accordance with the instruction manual, 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.
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.

CE MARKING

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55032/24 class A for ITE, the essential protection requirement of Council Directive 2014/30/EU on the approximation of the laws of the Member States relating to electromagnetic compatibility.

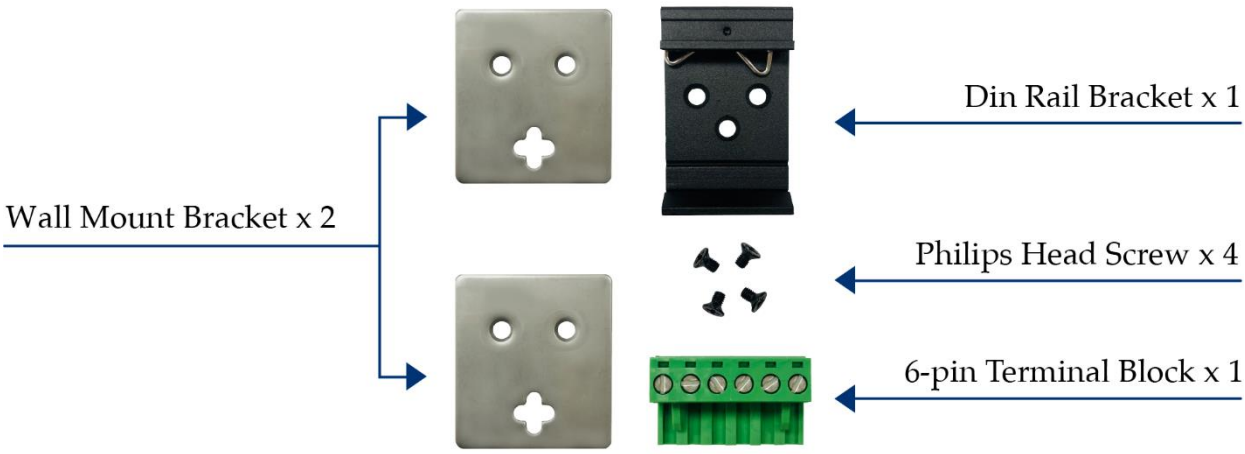
Company has an on-going policy of upgrading its products and it may be possible that information in this document is not up-to-date. Please check with your local distributors for the latest information. No part of this document can be copied or reproduced in any form without written consent from the company.

Introduction

This hardened UL60950-1 certified high power POE+ is designed especially for IP surveillance, traffic monitoring and for a broad range of applications. It accepts 3 power input sources: PW1, PW2, and Power DIN (via external power adapter) for 48-56VDC power input. The four PoE+ ports can be used to provide power and data for a variety of PoE devices. It can be used as a stand-alone device for buses, trucks, and other vehicles for surveillance purposes. It can also be cascaded/daisy-chained to other devices to cover wider areas via the uplink ports.

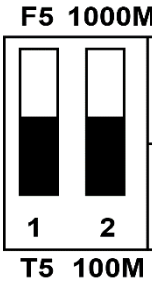
Installation package

This unit can be din-rail mounted or wall-mounted. Din-rail brackets and wall-mounted brackets are included.



Dip switch function

This unit is equipped with two dip switches, located on the front panel. Adjusting the dip switches will change the default function of this unit. The default manufacturer setting is SFP for port 5, and 1000M speeds for both port 5 and port 6 SFP ports. More details are shown in the chart:



Dip 1 to select port 5 TX or SFP	F5	F5 ON (default)
	T5	T5 ON
Dip 2 to select SFP speed	1000M	1000M (default)
	100M	100M

Power connection

This unit provides a 6 pin terminal block. PoE functions can be operated from 48-56VDC power input. Always make sure your input voltage is within this supported voltage range for each model.

<u>WARNING</u> – Any exceeded input voltage will not make this unit function and may damage this unit.

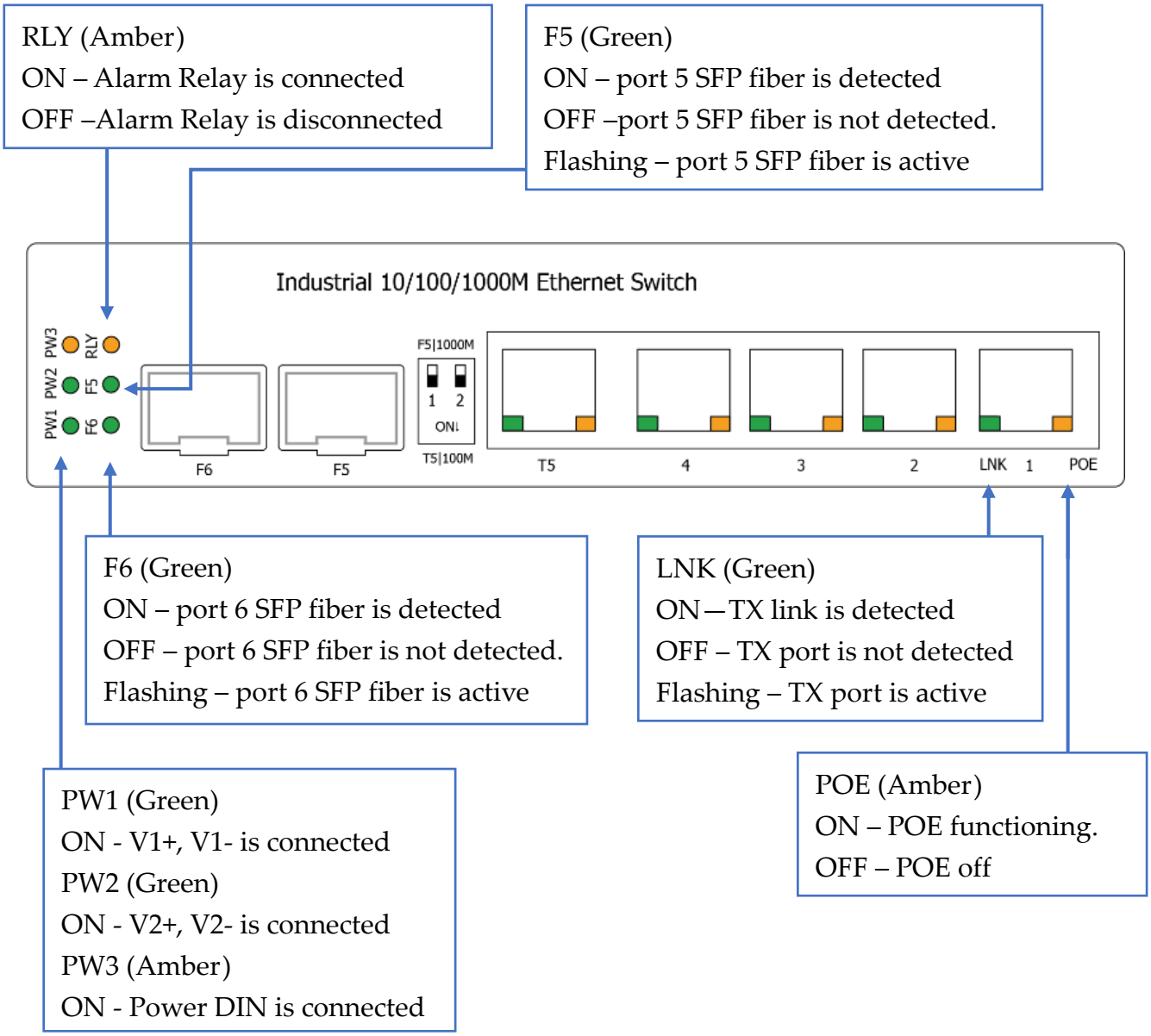
This unit comes with 3 power input sources. P1, P2, and P3.
To connect power: Follow the printed polarity for P1+, P1-, P2+, P2-, and ground. Connect positive wires to P1+ and/or P2+, connect negative wires to P1- and/or P2-, and connect the neutral wire to the ground screw as shown.
Power DIN: This unit contains an extra P3 port for power DIN. This power DIN can power the unit via external power adapter.
Relay: This unit includes an additional 24V@1A relay circuit for special purpose. When 2 powers are connected, the relay is in OPEN mode. If only one of the power sources is connected, the relay changes to SHORT mode. This relay will only work with P1 and P2. It is independent from P3.

Power connecting procedure:

STEP 1 – Pull out 6 pin terminal block
STEP 2 – Connect wire to P1+, P1-, P2+, P2-, and the neutral wire to the ground screw.
STEP 3 – Plug connected 6 pin terminal block back into place. Or, Connect the P3 power DIN from external power adapter.

<u>WARNING</u> – Always SHUT OFF power source to connect power wire.
<u>WARNING</u> – Always ground the power source to maintain a clean power input. Cheaply made power supplies create too much noise and will cause the power input to fluctuate when connected to this unit. To avoid this, always ground the power source to maintain a clean power input.

LED indicator



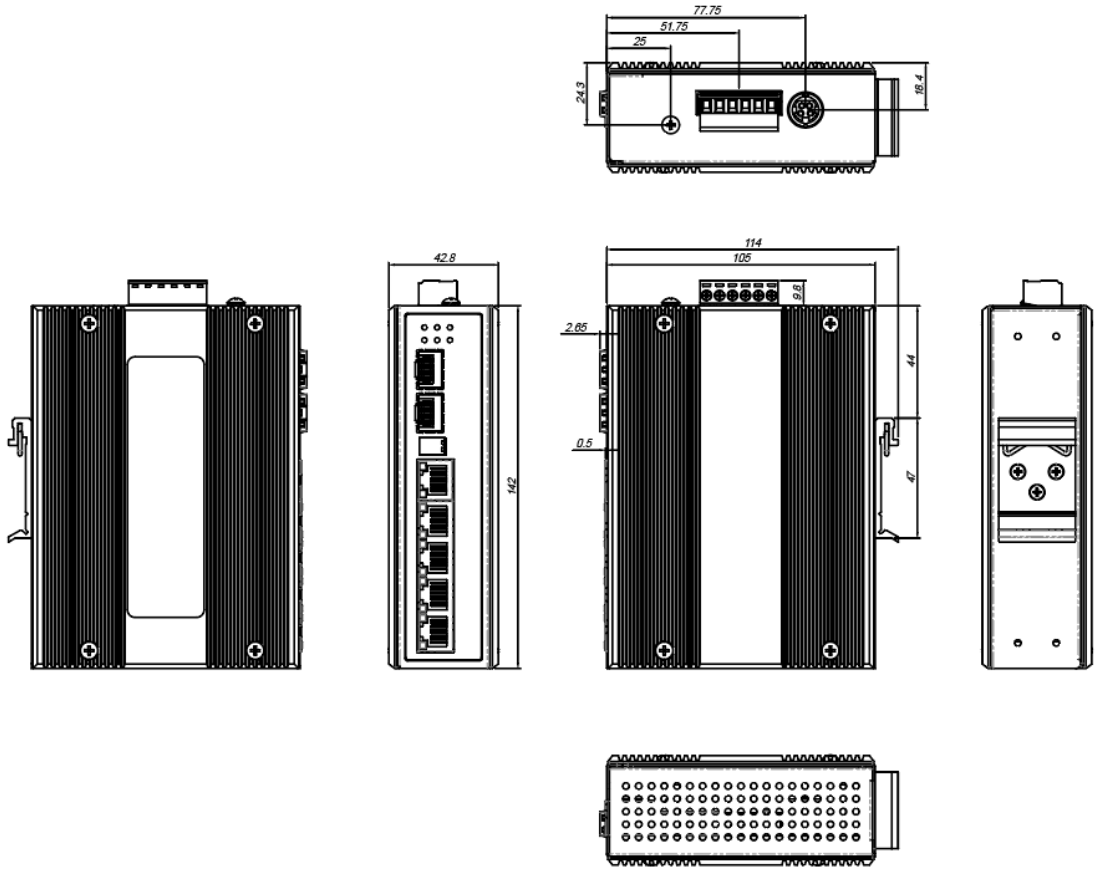
Specification

IEEE Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-T Gigabit Ethernet IEEE 802.3z 1000Base-X Gigabit Ethernet IEEE 802.3x Flow Control and Back Pressure, IEEE 802.3af for POE IEEE 802.3at for POE+
Switch Architecture	Back-plane (Switching Fabric): 12Gbps
Data Processing	Store and Forward
Flow Control:	IEEE 802.3x Flow Control and Back Pressure
Jumbo Frame	9KB
MAC address Table Size	1K
Packet Buffer Size	1M
Network Connector	5 x RJ-45 10/100/1000BaseT(X) auto negotiation, 4 x Gigabit 30W POE+ 802.3at/af PSE port 2 x SFP 100/1000M BaseX Auto MDI/MDI-X function, Full/Half duplex
Network Cable	UTP/STP Cat.5e or above Cable
	EIA/TIA-568 10-ohm (100m)
	Fiber Cable (Multi-mode):50/125um,62.5/125um Fiber Cable (Single-mode): 9/125um
Protocol	CSMA/CD
DIP Switch	DIP 1: F5: F5 ON (default) T5/OFF: F5 OFF DIP 2: 1000M: SFP 1000M (default) 100M: SFP 100M
LED	PW1 (Green): ON－Power is detected PW2 (Green): ON－Power is detected PW3 (Amber): ON－Power is detected RLY (Amber): ON－Only PW1 or PW2 is connected OFF－Both PW1 and PW2 are connected
	TX/RJ-45 port LNK (Green): ON－TX port is detected Flashing－TX data is transmitting/receiving

	PoE (Amber): ON－PSE is activated and PD is detected OFF－PSE is detecting PD
	SFP port (Green): ON－SFP port is detected Flashing－SFP data is transmitting/receiving
Reserve polarity protection	Present
Overload current protection	Present
Power Supply	Redundant Dual DC 48V-56V Power Input POE input 48-56VDC
Power Consumption	5.76W@48 VDC full load, Without POE
Alarm Relay Contact	Relay outputs with current carrying capacity of 1 A @24VDC, Relay in “open” circuit mode when PW1 and PW2 are connected. in “short” circuit mode when only one power supply is connected
POE power	POE power per port 30watts. Maximum 36Watts Maximum total power 126Watts, Supports IEEE802.3af/at
Removable Terminal Block	Provide 2 Redundant power, Alarm relay contact, 6 Pin Wire range: 0.34mm^2 to 2.5mm^2 Solid wire (AWG):12-24/14-22 Stranded wire(AWG): 12-24/14-22 Torque:5lb-In/0.5Nm/0.56Nm Wire Strip length: 7-8mm
Operating Temperature	-40°C to 75°C
Operating Humidity	5% to 95% (Non-condensing)
Storage Temperature	-40°C to 85°C
MTBF (mean time between failure)	>500,000 hrs (MIL-HDBK-217F) at 25°C
Housing	Rugged Metal, IP30 Protection
Case Dimension	142 x 42.8 x 105 mm (L x W x D)
Installation	DIN Rail Mount or Wall Mount

Certifications	
Safety	UL 60950-1
Safety	IEC EN62368-1
EMC/EMS	CE, FCC, VCCI
EMI	FCC Part 15 Subpart B Class A
EN 60068-2-6	Vibration
EN 60068-2-27	Shock
EN 60068-2-32	Free Fall

Housing Dimension (mm)



NOTE:

Housing dimension is for purpose of showing product Length, Width, Height, din-rail, and terminal block's position and dimension. Please reference the LED Indicator Page for correct port order.