User Manual: PC-PIGE502-GBTE
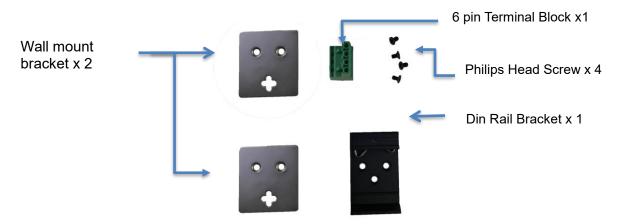# Industrial Switch with PoE+

Version 9.2019

Introduction

This rugged designed Industrial Gigabit 4 port PoE Switch, compliant with IEEE802.3af and IEEE802.3at, has passed many rigorous environmental tests. It delivers 30watts (Max 36watts) power per POE port and can generate a total of 126 watts power to PD devices. The 2 uplink SFP ports can extend your environment to a much larger area. With its multi-purpose design, it can also be Din-Rail or wall-mounted. It is an ideal unit for IP surveillance, traffic monitoring and security applications in critical environments. It can tolerate -40°C to 75°C in harsh environment to perform a reliable network..

Installation package

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

Wall mount bracket x 2

6 pin Terminal Block x1

Philips Head Screw x 4

Din Rail Bracket x 1

Power connection

This unit comes with a 6 pin terminal block. It can be operated from 48-56VDC power source. Always make sure your input voltage is within this supported voltage range for each model
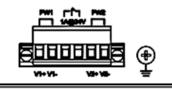
WARNING -- Any exceeded input voltage will not make this unit function and may damage this unit.

To connect power: Follow the printed polarity for PW1+, PW1-, PW2+, PW2-, and ground. Connect positive wires to PW1+ and/or PW2+, connect negative wires to PW1- and/or PW2-, and connect the neutral wire to the ground screw as shown.

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 PW1 and PW2. It is independent from PW3.

Power connecting procedure:

STEP 1 – Pull out 6 pin terminal block.
STEP 2 – Connect wire to V1+, V1-, or V2+, V2- and the neutral wire to the ground screw.
STEP 3 – Plug back 6 pin terminal block to its place.

WARNING -- Always SHUT OFF power source to connect power wire.
WARNING -- 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 connect to this unit. To avoid this, always ground the power source to maintain a clean power input.

Dip Switch Function

This unit is equipped with dip switches, located on the front panel. Adjusting the dip switches will change the functions of this unit.
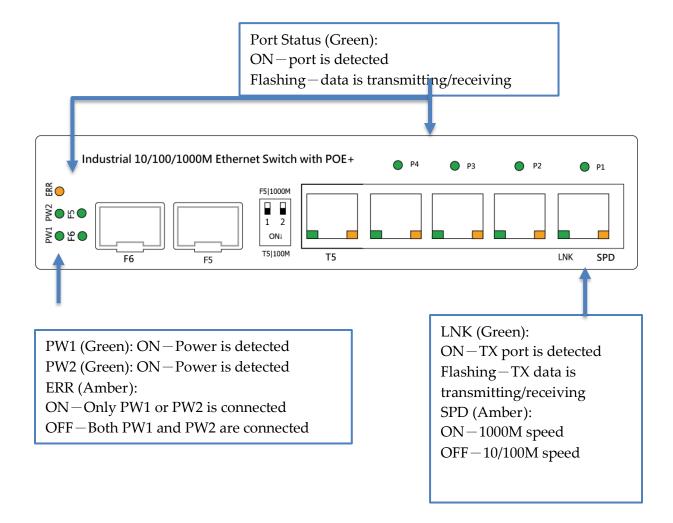The table below lists the features of the dip switch. You may change the dip switch setting based on your environment.

WARNING – Always SHUT OFF the power source before adjusting the Dip Switch

F5|1000M ▮▮ 1 2 ON↓ OFF|100M	DIP 1	F5	Port 5 SFP on(default)
		OFF	Port 5 SFP off
	DIP 2	1000M	SFP speed 1000M(default)
		100M	SFP speed 100M

LED indicator

Port Status (Green):
ON－port is detected
Flashing－data is transmitting/receiving

Industrial 10/100/1000M Ethernet Switch with POE+

P4 P3 P2 P1

ERR
PW2 F5
PW1 F6

F5|1000M

1 2

ON↓

T5|100M

F6   F5   T5   LNK   SPD

PW1 (Green): ON－Power is detected
PW2 (Green): ON－Power is detected
ERR (Amber):
ON－Only PW1 or PW2 is connected
OFF－Both PW1 and PW2 are connected

LNK (Green):
ON－TX port is detected
Flashing－TX data is
transmitting/receiving
SPD (Amber):
ON－1000M speed
OFF－10/100M speed

Specifications

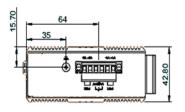|	
IEEE Standards	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-T Gigabit Ethernet IEEE 802.3z 1000Base-X Gigabit Ethernet IEEE 802.3x Flow Control and Back Pressure, IEEE 802.3af for POE IEEE 802.3at for POE+
Switch Architecture	Back-plane (Switching Fabric): 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 PSE port 2 x SFP 100/1000M BaseX Auto MDI/MDI-X function, Full/Half duplex
Network Cable	UTP/STP above Cat.5e 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
LED	PW1 (Green): ON－Power is detected PW2 (Green): ON－Power is detected ERR (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 SPD (Amber): ON－1000M speed 　　　　　OFF－100M speed Port Status (Green): ON－port is detected Flashing－data is transmitting/receiving
DIP Switch	DIP 1:　　F5－Port 5 SFP (Default) 　　　　　T5－Port 5 TX DIP 2:　　1000M－SFP Speed 1000M (Default) 　　　　　100M－SFP Speed 100M

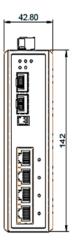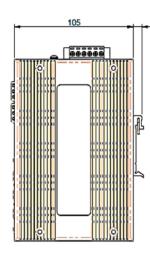|	
Reserve polarity protection	Present
Overload current protection	Present
Power Supply	Redundant Dual DC 48V-56V Power Input
Power Consumption	5.76W@12/24/48 VDC full load, without POE
Alarm Relay Contact	Relay outputs with current carrying capacity of 1 A @24VDC, Relay in short circuit mode when 2 powers are connected. in open circuit mode when only one power supply is connected
POE power	POE power per port 30watts. Maximum 36Watts per port. Maximum total power 126Watts.
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 ~75°C fully tested.
Operating Humidity	5% to 95% (Non-condensing)
Storage Temperature	-40°C ~85°C
MTBF (mean time between failure)	>500,000 hrs (MIL-HDBK-217F) at 25°C
Housing	Rugged Aluminum, IP30 Protection
Case Dimension (L x W x D)	142 x 43 x 105 mm (L x W x D)
Installation mounting	DIN Rail and Wall Mount options included

Certifications

Safety	IEC EN60950-1
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
EN50155 / EN50121-3-2	Railroad
EN50155 / EN50121-4	Railroad

Housing Dimension (mm)