User Manual: PC-IA402 Industrial Switch

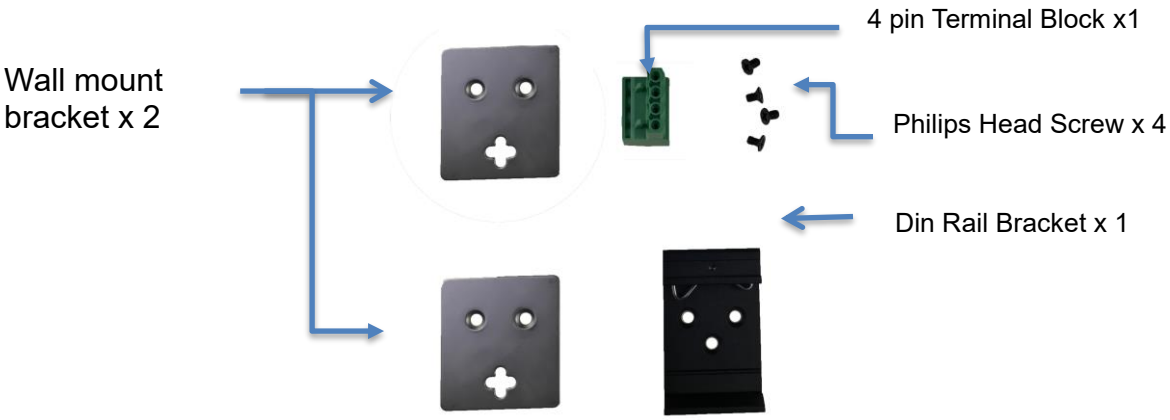
Version 5.2019

Introduction

This Industrial Fast Ethernet Switch is designed for IP surveillance, traffic monitoring and for a broad range of applications. It accepts 3 power input sources: PW1, PW2, and Power DIN (for external power adapter) to power the device from 12-56VDC. 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 through TX/SC connection.

Installation package

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



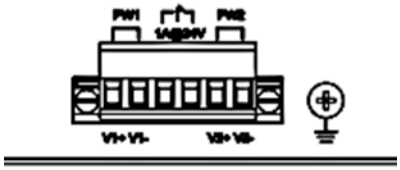
Power connection

This unit provides a 6 pin terminal block. It can be operated using 12-56VDC power source. Always make sure your input voltage is within this supported voltage range.

WARNING *-- Any exceeded input voltage will not make this unit function and may damage this unit.*

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 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.

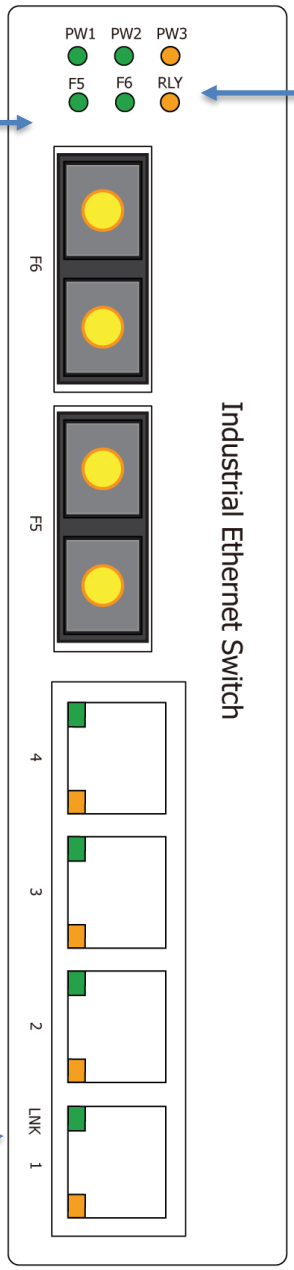
LED indicator

PW1(Green)
ON – V1+, V1- is connected
PW2(Green)
ON – V2+, V2- is connected
PW3(Amber)
ON – P3 power DIN is connected

RLY (relay)(Amber)
ON – either PW1 or PW2 is connected
OFF – Both PW1 and PW2 are connected

F5(Green)
ON – port 5 FX fiber is detected
OFF –port 5 FX fiber is not detected
Flashing – port 5 FX fiber is active
F6(Green)
ON – port 6 FX fiber is detected
OFF –port 6 FX fiber is not detected
Flashing – port 6 FX fiber is active

LNK
ON—TX link is detected
OFF – TX port is not detected
Flashing – TX port is active



Specifications

IEEE Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE802.3x Flow Control and Back Pressure
Switch Architecture	Back-plane (Switching Fabric): 1.6Gbps
Data Processing	Store and Forward
Flow Control:	IEEE 802.3x Flow Control and Back Pressure
MAC address Table Size	1K
Packet Buffer Size	1M
Network Connector	4xRJ-45 10/100BaseT(X) auto negotiation, 2 FX MM/SM SC 2km/30km 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 – V1+, V1- is connected **PW2(Green)** ON – V2+, V2- is connected **PW3(Amber)** ON – P3 power DIN is connected **RLY (relay)(Amber)** ON – either PW1 or PW2 is connected OFF – Both PW1 and PW2 are connected
	LNK ON—TX link is detected OFF – TX port is not detected Flashing – TX port is active **F5(Green)** ON – port 5 FX fiber is detected OFF –port 5 FX fiber is not detected Flashing – port 5 FX fiber is active **F6(Green)** ON – port 6 FX fiber is detected OFF –port 6 FX fiber is not detected Flashing – port 6 FX fiber is active
Reserve polarity protection	Present
Overload current protection	Present

Power Supply	Redundant Dual DC 9V-56V Power Input,
Power Consumption	3.76W@48 VDC full load
Alarm Relay Contact	Relay outputs with current carrying capacity of 1 A @24VDC, Relay in OPEN mode when 2 powers are connected. in SHORT mode when only one power supply is connected
POE power	n/a
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℃ to 75℃
Operating Humidity	5% to 95% (Non-condensing)
Storage Temperature	-40℃ to 85℃
Housing	Rugged Metal, IP30 Protection
Case Dimension (L x W x D)	142mmx36.2mmx105mm (LxWxD)
Installation mounting	DIN-Rail and wall mount brackets included
Certificates	
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

Housing Dimension (mm)