Product Datasheet

5-port 10/100M Industrial PoE Switch

(ONV-IPS31004PF)

OVERVIEW

The ONV-IPS31004PF is a 10/100M industrial PoE fiber switch independently developed by ONV. It has 4*10/100M adaptive RJ45 ports and 1*155M SC fiber port. Port 1-4 can support IEEE 802.3 af/at PoE standard and single-port PoE power up to 30W. As a PoE power supply device, it can automatically detect and recognize the power-receiving equipment that meets the standard and supply power through the network cable. It can supply power to PoE terminal devices such as wireless AP, IP cameras, and industrial sensors through the network cable, and meet the network environment that needs a high-density PoE power supply. It is suitable for intelligent transportation, rail transit, power industry, mining, petroleum, and sea transportation. Industrial scenes such as metallurgy and green energy, construction form a cost-effective, stable, and reliable communication network. Unmanaged mode, plug and play, no configuration, easy to use.

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FEATURE

■ **10/100M access**

◇ Support non-blocking wire speed forwarding

◇ Support full duplex based on IEEE802.3x and half duplex based on Backpressure

◇ Support 10/100M RJ45 port and 155M SC fiber port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

■ **Smart PoE power supply**

◇ Comply with IEEE 802.3 af/at PoE standard, automatically identify PoE devices for power supply, and not damage non-PoE devices.

◇ 4*10/100 Base-TX RJ45 ports can support PoE power supply to meet the needs of PoE power supply in various scenarios in the industrial field.

■ **Stable and reliable**

◇ CCC, CE, FCC, RoHS.

◇ The user-friendly panel can show the device status through the LED indicator of PWR, Link, and PoE.

◇ Low power consumption, aluminum alloy housing, and excellent heat dissipation to ensure the stable operation of the switch.
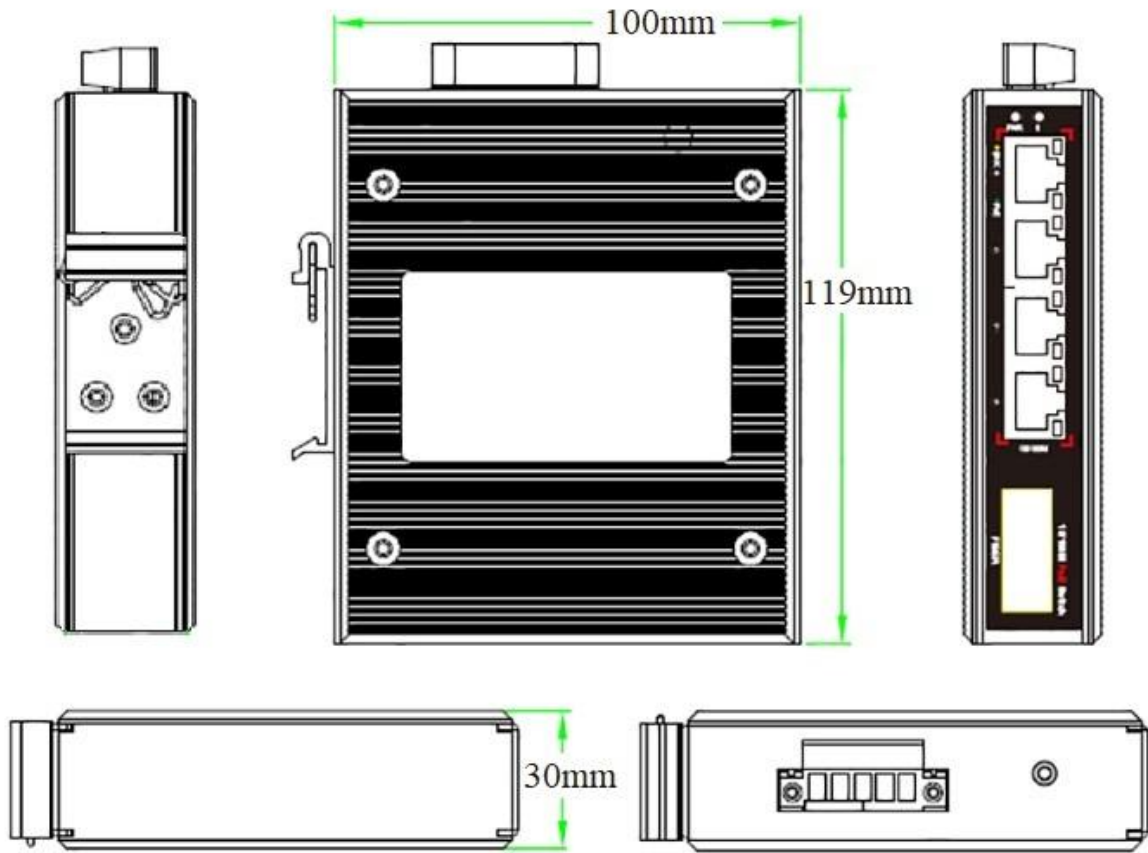
TECHNICAL SPECIFICATION

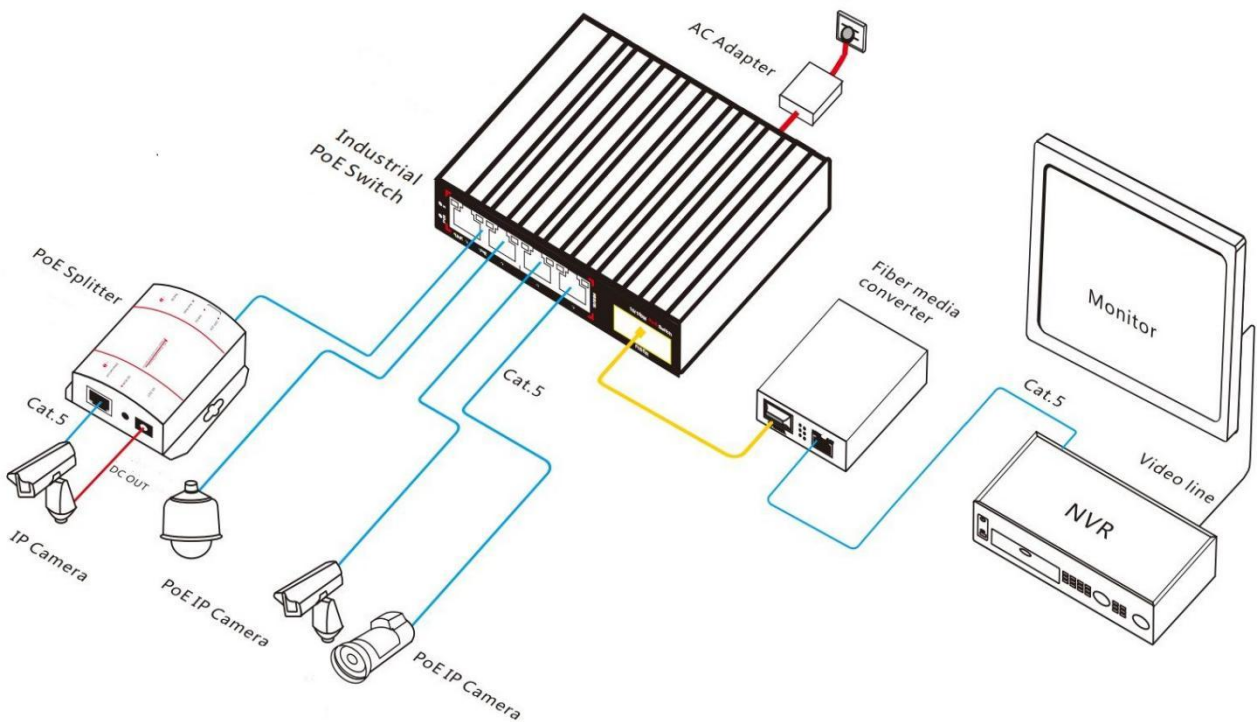| Model	ONV-IPS31004PF
Interface Characteristics	
Fixed Port	1*155M uplink SC fiber port (Data) 4*10/100Base-T PoE ports (Data /Power) 2 sets V+, V- redundant DC power ports (5P industrial Phoenix terminal)
Ethernet Port	Port 1-4 can support 10/100Base-T(X) auto-sensing, full/ half duplex MDI/ MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meters)

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	100BASE-TX: Cat5e or later UTP (≤100 meters)
Optical Fiber Port	Optical module is single-mode dual fiber 20km, SC port (optional single-mode single fiber and multi-mode dual fiber optical module)
Optical Cable/ Distance	Multi-mode: 850nm/ 0-500m, Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km

Chip Parameter

Network Protocol	IEEE 802.3 10BASE-T, IEEE 802.3i 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3u 100Base-FX, IEEE 802.3x
Forwarding Mode	Store and Forward (Full Wire Speed)
Switching Capacity	1.0Gbps (non-blocking)
Forwarding Rate@64byte	0.74Mpps
MAC	1K
Buffer Memory	512K
Jumbo Frames	9.2K
LED Indicator	Power: PWR (Green), Network: Link (Yellow), PoE: PoE (Green), Fiber port: 5 (Green)

PoE& Power Supply

PoE Port	Port 1-4
Power Supply Pin	1/2(+) 3/6 (-)
Max Power Per Port	30W, IEEE 802.3 af/at
Power Consumption	Standby<3W, Full Load af<60W, at<120W
Input Voltage/ Interface	DC48-57V, 5P industrial phoenix terminal, anti-reverse protection.
Power Supply	No, optional 48V/60W and 48V/120W industrial power supply

Physical Parameter

Operation Temp/ Humidity	-40~+75°C, 5%~90% RH Non-condensing
Storage Temp/ Humidity	-40~+85°C, 5%~95% RH Non-condensing
Dimension	119*100*30mm
Net /Gross Weight	0.4kg /0.5kg
Installation	Desktop, 35mm DIN Rail

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Certification & Warranty	
Lightning Protection	Protection level: IP40 Lightning protection: 6KV 8/20us IEC61000-4-3 (RS):10V/m (80~1000MHz) FCC Part 15/CISPR22 (EN55022): Class A IEC61000-6-2 (Common Industrial Standard) IEC61000-4-9 (Pulsed magnet field): 1000A/m IEC61000-4-10 (Damped oscillation): 30A/m 1MHz IEC61000-4-12/18 (Shockwave): CM2.5kV, DM1kV IEC61000-4-4(EFT): Power cable: ±4kV, data cable: ±2kV IEC61000-4-16 (Common-mode transmission): 30V, 300V, 1s IEC61000-4-2 (ESD): ±8kV contact discharge, ±15kV air discharge IEC61000-4-6 (Radio frequency transmission): 10V(150kHz~80MHz) IEC61000-4-8 (Power frequency magnetic field): 100A/m, 1000A/m, 1s-3s IEC61000-4-5 (Surge): Power cable: CM±4kV/ DM±2kV, data cable: ±4kV
Mechanical Properties	IEC60068-2-6 (Anti Vibration), IEC60068-2-27 (Anti Shock), IEC60068-2-32 (Free Fall)
Certification	CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class A, RoHS
Warranty	5 years, lifelong maintenance.

DIMENSION

APPLICATION

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ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS31004PF	Unmanaged industrial PoE switch with 4*10/100M RJ45 ports and 1*155M uplink SC fiber port (1310nm/20km single-mode dual fiber optical module). Port 1-4 can support IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.	60W/120W
ONV-IPS31004PF-M	Unmanaged industrial PoE switch with 4*10/100M RJ45 ports and 1*155M uplink SC fiber port (850nm/0.5km or 1310nm/2km multi-mode dual fiber optical module). Port 1-4 can support IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.	60W/120W
ONV-IPS31004PF-A	Unmanaged industrial PoE switch with 4*10/100M RJ45 ports and 1*155M uplink SC fiber port (1310nm/20km single-mode single fiber optical module). Port 1-4 can support IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.	60W/120W
ONV-IPS31004PF-B	Unmanaged industrial PoE switch with 4*10/100M RJ45 ports and 1*155M uplink SC fiber port (1550nm/20km single-mode single fiber optical module). Port 1-4 can support IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.	60W/120W
Note: The power supply is not included and needs to be purchased.		

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PACKING LIST

	Content	Qty	Unit
Packing List	5-port 10/100M industrial PoE switch	1	Set
	User Guide	1	PC
	Warranty Card	1	PC

POWER SUPPLY

Product	Model	Description	Unit
60W DIN Rail Industrial Power Supply	GWS-DP60-48	DIN Rail 60W single set of output power supply Input Voltage: AC100V~240V 50-60Hz, 1.0A Output Voltage: DC48V, 1.25A Operation Temperature: -40℃ to +70℃	PC
120W DIN Rail Industrial Power Supply	GWS-DP120-48	DIN Rail 120W single set of output power supply Input Voltage: AC100V~240V 50-60Hz, 2.3A Output Voltage: DC48V, 2.5A Operation Temperature: -40℃ to +70℃	PC

RELATED PRODUCT

Model	Description
ONV-IPS33032PF	Unmanaged industrial PoE fiber switch with 2*10/100/1000M RJ45 ports and 1*1000M uplink SFP fiber port. Port 1-2 can support IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.
ONV-IPS33042PF	Unmanaged industrial PoE fiber switch with 2*10/100/1000M RJ45 ports and 2*1000M uplink SFP fiber ports. Port 1-2 can support IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.
ONV-IPS33064PF	Unmanaged industrial PoE fiber switch with 4*10/100/1000M RJ45 ports and 2*1000M uplink SFP fiber ports. Port 1-4 can support IEEE 802.3 af/at

8	PoE standard. It can support dual DC power input and DIN rail mounting.
ONV-IPS33128PF	Unmanaged industrial PoE fiber switch with 10*10/100/1000M RJ45 ports and 2*1000M uplink SFP fiber port. Port 1-8 can support IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.

CONTACT US

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