Product Datasheet

2-port 10/100M Industrial Ethernet Fiber Switch

(ONV-IPS31021F)

OVERVIEW

The ONV-IPS31021F is a 10/100M industrial Ethernet fiber switch independently developed by ONV. It is designed to meet industrial fields and systems and can operate stably for a long time in harsh environments. It has 1*10/100M RJ45 port and 1*155M uplink SC port. Each port can support full line-rate forwarding.

ONV-IPS31021F industrial Ethernet switch has excellent industrial field environment adaptability (including mechanical stability, climate adaptability, electromagnetic environment adaptability, etc.), protection level up to IP40, It can support dual redundant power supply, low power consumption and no fan cooling technology, MTBF average trouble-free working time up to 35 years, 5-year warranty. It is suitable for industrial scenes such as intelligent transportation, rail transit, electric power, mining, metallurgy and green energy construction to form a cost-effective and stable communication network.

FEATURE

■ **100M fast Ethernet access**

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

◇ Support non-blocking wire-speed forwarding.

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

■ **Port lightning protection, wide voltage input**

◇ Contact discharge 8KV, air discharge 15KV; port lightning protection common-mode 4KV, differential mode 2KV;

◇ Industrial dual power input.

◇ DC INPUT: 48V-57V, non-PoE DC INPUT: 12-48V.

■ **Stable and reliable**

◇ CE, FCC, RoHS.

◇ Low power consumption, No fan, aluminum shell.

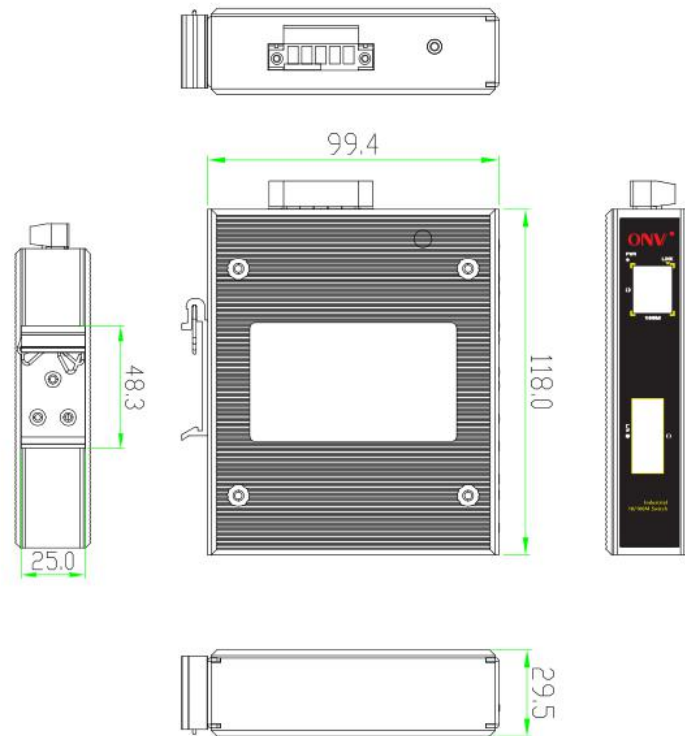◇ The user-friendly panel, it can show the device status through the LED indicator of PWR, Link.

TECHNICAL SPECIFICATION

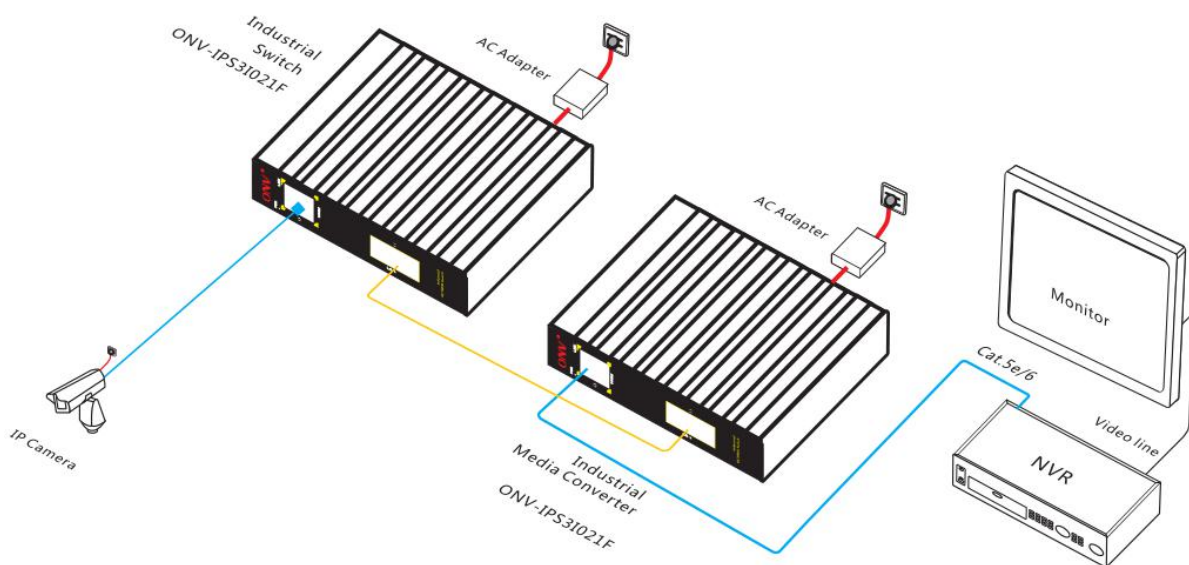| Model	ONV-IPS31021F	ONV-IPS31032F
Interface Characteristics		
Fixed Port	1*10/100Base-TX RJ45 port (Data) 1*155M uplink SC port (Data) 2 set of V+, V- redundant DC	2*10/100Base-TX RJ45 ports (Data) 1*155M uplink SC port (Data) 2 set of V+, V- redundant DC

	power ports (5 Pin Phoenix terminal)	power ports (5 Pin Phoenix terminal)
Ethernet Port	10/100Base-TX auto-sensing, full/half duplex MDI/MDI-X self-adaption	
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meter) 100BASE-T: Cat5e or later UTP(≤100 meter)	
Optical Port	Default optical module is single-mode dual-fiber 20km, SC port	
Optical Cable/ Distance	Multi mode: 850nm / 0 ~ 550M, 1310nm / 0~2km single mode: 1310nm / 0 ~ 40KM, 1550nm / 0 ~ 120KM	
Chip Parameter		
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100Base-TX, IEEE802.3u 100Base-FX, IEEE802.3x	
Forwarding Mode	Store and Forward(Full Wire Speed)	
Switching Capacity	1.6Gbps	
Forwarding Rate@64byte	0.30Mpps	0.45Mpps
MAC	1K	
Buffer Memory	768K	
Jumbo Frame	1536bytes	
LED Indicator	Power: PWR (green), network: Link (yellow), fiber port: L/A (green)	
Power		
Working Voltage	12-48VDC, 5 Pin industrial phoenix terminal, support anti-reverse protection	
Power Consumption	Standby<3W, Full load<5W	Standby<4W, Full load<6W
Power Supply	No, optional 24V/24W industrial power supply	
Physical Parameter		
Operation TEMP / Humidity	-40~+75°C;5%~90% RH Non condensing	
Storage TEMP /	-40~+85°C;5%~95% RH Non condensing	

Humidity	
Dimension (L*W*H)	119*100*30mm
Net /Gross Weight	<0.5 kg / <0.7 kg
Installation	Desktop, DIN rail
Certification & Warranty	
Lightning protection / protection level	Lightning protection: 6KV 8/20us; Protection level: IP40
	IEC61000-4-2(ESD):±8kV contact discharge,±15kV air discharge
	IEC61000-4-3(RS):10V/m(80~1000MHz)
	IEC61000-4-4(EFT): power cable:±4kV; data cable:±2kV
	IEC61000-4-5(Surge):power cable:CM±4kV/DM±2kV; data cable:±4kV
	IEC61000-4-6(radio frequency transmission):10V(150kHz~80MHz)
	IEC61000-4-8(power frequency magnetic field):100A/m;1000A/m ,1s to 3s
	IEC61000-4-9(pulsed magnet field):1000A/m
	IEC61000-4-10(damped oscillation):30A/m　1MHz
	IEC61000-4-12/18(shockwave):CM 2.5kV,DM 1kV
	IEC61000-4-16(common-mode transmission):30V; 300V,1s
	FCC Part 15/CISPR22(EN55022):Class B
	IEC61000-6-2(Common Industrial Standard)
Mechanical Properties	IEC60068-2-6 (anti vibration), IEC60068-2-27 (anti shock)
	IEC60068-2-32 (free fall)
Certification	CCC;CE mark, commercial; CE/LVD EN60950;FCC Part 15 Class B; RoHS
Warranty	5 years, lifelong maintenance.

DIMENSION

APPLICATION

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ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS31021F	Unmanaged industrial Ethernet fiber switch with 1*10/100M RJ45 port and 1*155M uplink SC port. By default, the SC port 1310mm/20km single-mode dual-fiber module. It can support dual DC redundant power input and DIN rail mounting.	24V/24W
ONV-IPS31021F-M	Unmanaged industrial Ethernet fiber switch with 1*10/100M RJ45 port and 1*155M uplink SC port. By default, the SC port 850nm/0.5km or 1310nm/2km multi-mode dual fiber module. It can support dual DC redundant power input and DIN rail mounting.	24V/24W
ONV-IPS31021F-A	Unmanaged industrial Ethernet fiber switch with 1*10/100M RJ45 port and 1*155M uplink SC port. By default, the SC port 1310nm/20km single-mode single-fiber module. It can support dual DC redundant power input and DIN rail mounting.	24V/24W
ONV-IPS31021F-B	Unmanaged industrial Ethernet fiber switch with 1*10/100M RJ45 port and 1*155M uplink SC port. By default, the SC port 1550nm/20km single-mode single-fiber module. It can support dual DC redundant power input and DIN rail mounting.	24V/24W
ONV-IPS31032F	Unmanaged industrial Ethernet fiber switch with 2*10/100M RJ45 ports and 1*155M uplink SC port. By default, the SC port 1310mm/20km single-mode dual-fiber module. It can support dual DC redundant power input	24V/24W

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	and DIN rail mounting.	
ONV-IPS31032F-M	Unmanaged industrial Ethernet fiber switch with 2*10/100M RJ45 ports and 1*155M uplink SC port. By default, the SC port 850nm/0.5km or 1310nm/2km multi-mode dual fiber module. It can support dual DC redundant power input and DIN rail mounting.	24V/24W
ONV-IPS31032F-A	Unmanaged industrial Ethernet fiber switch with 2*10/100M RJ45 ports and 1*155M uplink SC port. By default, the SC port 1310nm/20km single-mode single-fiber module. It can support dual DC redundant power input and DIN rail mounting.	24V/24W
ONV-IPS31032F-B	Unmanaged industrial Ethernet fiber switch with 2*10/100M RJ45 ports and 1*155M uplink SC port. By default, the SC port 1550nm/20km single-mode single-fiber module. It can support dual DC redundant power input and DIN rail mounting.	24V/24W

Note: The industrial power supply is not included by default and needs to be purchased separately.

PACKING LIST

	CONTENT	QTY	UNIT
PACKING LIST	2-port 10/100M industrial Ethernet fiber switch	1	SET
	User Guide	1	PC
	Warranty Card	1	PC

POWER SUPPLY

Product	Model	Description	Unit
24W DIN Rail Industrial Power Supply	GWS-DP24-24	Din Rail type 24W single set of output power supply; Input Voltage:AC 100V~240V 50-60H,0.35A Output Voltage:DC 24V 1.0A Operation Temperature: -40℃—+70℃	PC

RELATED PRODUCT

Model	Description
ONV-IPS31004F	Unmanaged industrial Ethernet fiber switch with 4*10/100M RJ45 ports and 1*155M SC port, By default, the SC port 1310mm/20km single-mode dual-fiber module. It can support dual DC redundant power input and DIN rail mounting.
ONV-IPS31064F	Unmanaged industrial Ethernet fiber switch with 4*10/100M RJ45 port and 2*155M SFP ports. It can support dual DC redundant power input and DIN rail mounting.
ONV-IPS31084F	Unmanaged industrial Ethernet fiber switch with 6*10/100M RJ45 ports and 2*155M SC ports. By default, the SC port 1310mm/20km single-mode dual-fiber module. It can support dual DC redundant power input and DIN rail mounting.
ONV-IPS31108FB	Unmanaged industrial Ethernet fiber switch with 8*10/100M RJ45 ports and 2*10/100/1000M RJ45 ports and 2*1000M SFP slot ports (including combo port). It can support dual DC redundant power input and DIN rail mounting.

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ONV-IPS31108F-8 EF	Unmanaged industrial Ethernet fiber switch with 8*155M SFP ports and 2*10/100/1000M RJ45 ports and 2*1000M SFP slot ports (including combo port). It can support dual DC redundant power input and DIN rail mounting.

CONTACT US

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