Product Datasheet

3-port 10/100M Industrial Ethernet Switch
(ONV-IPS31032FS)

OVERVIEW

The ONV-IPS31032FS is a 10/100M industrial Ethernet fiber switch independently developed by ONV. It has 2*10/100M adaptive RJ45 ports and 1*155M uplink SC fiber port. Each port can support full line-speed forwarding.

The ONV-IPS31032FS has excellent industrial field environment adaptability (including mechanical stability, climate adaptability, electromagnetic environment adaptability, etc.). It is suitable for industrial scenes such as intelligent transportation, rail transit, power industry, mining, petroleum, shipping, metallurgy, and green energy construction to form a cost-effective, stable, and reliable communication network. Unmanaged mode, plug and play, no configuration, easy to use.

FEATURE

■ **10/100M access, Fast Ethernet**

◇ Support non-blocking wire-speed forwarding.

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◇ 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.

■ **Stable and reliable**

◇ CCC, CE, FCC, RoHS.

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

◇ Low power consumption, no fan, aluminum shell, and excellent heat dissipation to ensure the stable operation of the switch.
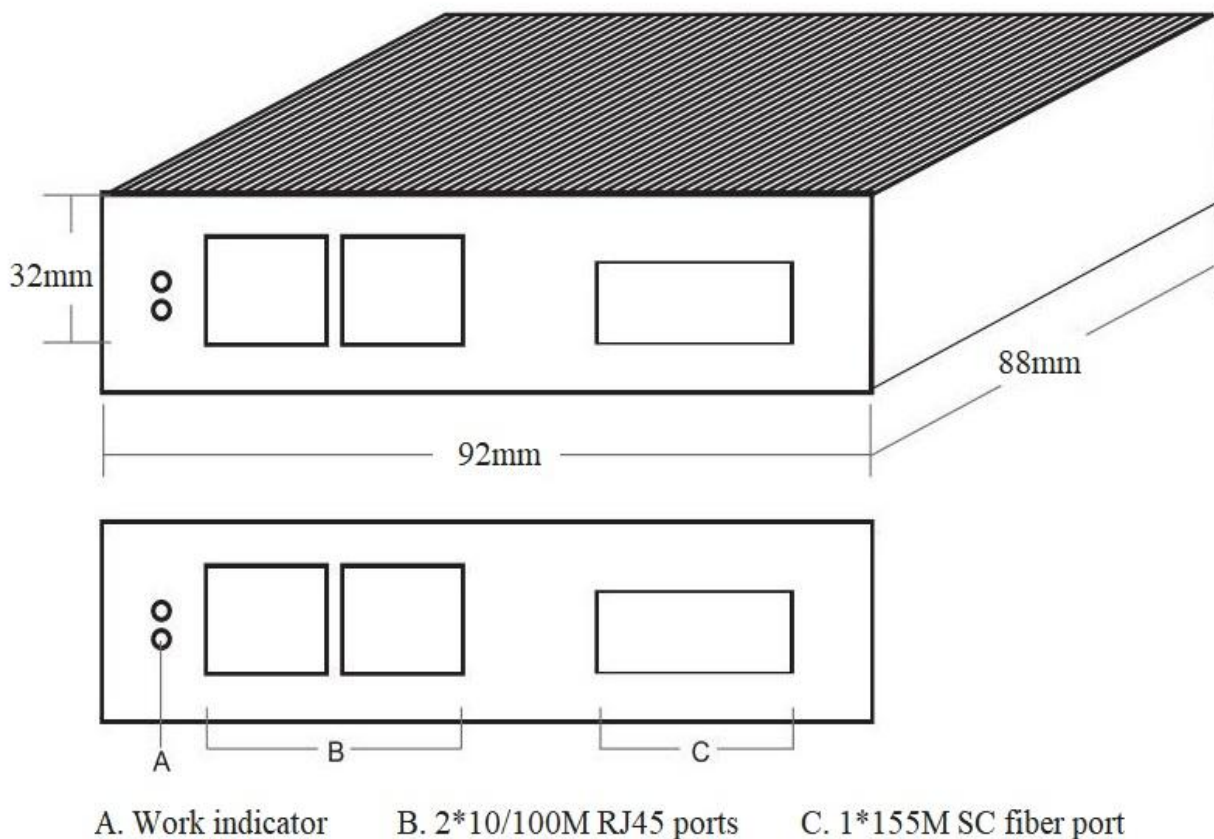
TECHNICAL SPECIFICATION

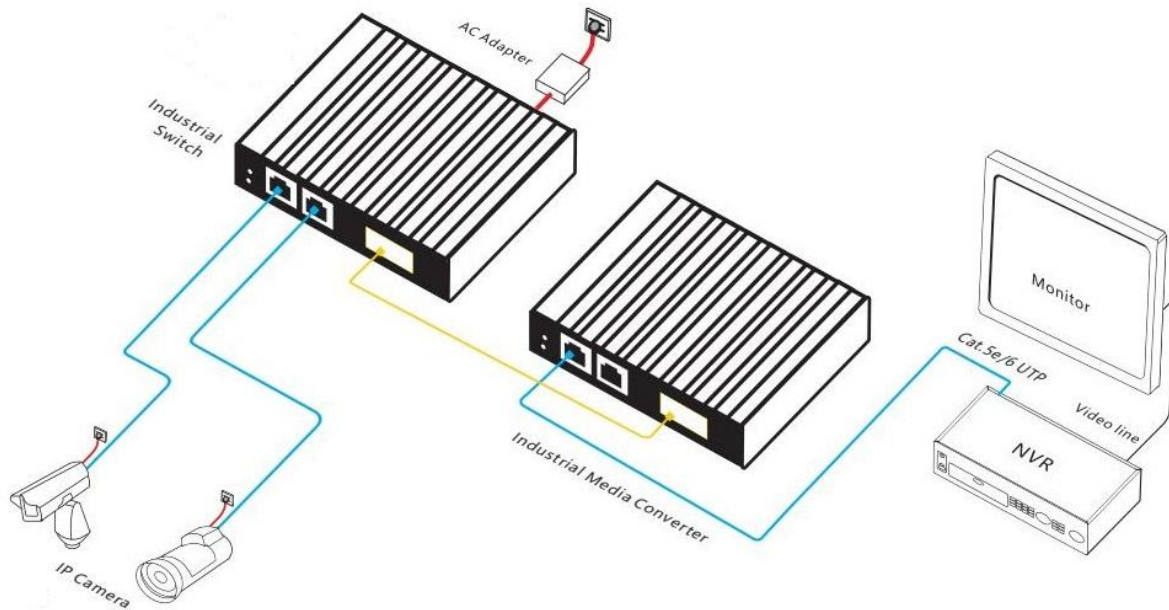| Model	ONV-IPS31032FS
Interface Characteristics	
Fixed Port	1*155M uplink SC fiber port (Data) 2*10/100Base-TX RJ45 ports (Data /Power) 2 sets V+, V- redundant DC power ports (5P Phoenix terminal)
Ethernet Port	Port 1-2 can support 10/100Base-TX auto-sensing, full/ half duplex MDI/ MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meters) 100BASE-TX: Cat5e or later UTP (≤100 meters)
Optical Fiber Port	Default 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, 1310nm /0-2km, 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 802.3x
Forwarding Mode	Store and Forward (Full Wire Speed)

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Switching Capacity	1.6Gbps (non-blocking)
Forwarding Rate @64byte	0.45Mpps
MAC	1K
Buffer Memory	768K
Jumbo Frame	1536byte
LED Indicator	Power: PWR(Green), Network: Link (Yellow), Fiber port: L/A (Green)
Power Supply	
Working Voltage	DC12-48V, 5 Pin industrial phoenix terminal, support anti-reverse protection
Power Consumption	Standby<3W, Full load<5W
Power Supply	No, optional 24V/24W 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 (L*W*H)	92*88*32mm
Net /Gross Weight	0.3kg / 0.4kg
Installation	Desktop, 35mm DIN Rail
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 B 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 B, RoHS
Warranty	5 years, lifelong maintenance.

DIMENSION

A. Work indicator   B. 2*10/100M RJ45 ports   C. 1*155M SC fiber port

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APPLICATION

ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS31032FS	Unmanaged industrial Ethernet fiber switch with 2*10/100M RJ45 ports and 1*155M uplink SC fiber port (1310nm /20km single-mode dual fiber optical module). It can support dual DC power input and DIN rail mounting.	24V/24W
ONV-IPS31032FS-M	Unmanaged industrial Ethernet fiber switch with 2*10/100M RJ45 ports and 1*155M uplink SC fiber port (850nm /0.5km or 1310nm /2km multi-mode dual fiber optical module). It can support dual DC power input and DIN rail mounting.	24V/24W
ONV-IPS31032FS-A	Unmanaged industrial Ethernet fiber switch with 2*10/100M RJ45 ports and 1*155M uplink SC fiber port (1310nm /20km single-mode single fiber optical module). It can support dual DC power input and DIN rail mounting.	24V/24W

ONV-IPS31032FS-B	Unmanaged industrial Ethernet fiber switch with 2*10/100M RJ45 ports and 1*155M uplink SC fiber port (1550nm /20km single-mode single fiber optical module). It can support dual DC power input and DIN rail mounting.	24V/24W
Note: The power supply is not included and needs to be purchased.		

PACKING LIST

	Content	Qty	Unit
Packing List	3-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 24W single set of output power supply Input Voltage: AC100V~240V 50-60H, 0.35A Output Voltage: DC24V, 1.0A Operation Temperature: -40℃ to +70℃	PC

RELATED PRODUCT

Model	Description
ONV-IPS31004F	Unmanaged industrial Ethernet switch with 4*10/100M RJ45 ports and 1*155M uplink SC fiber port (1310nm /20km single-mode dual fiber optical module). It can support dual DC power input and DIN rail mounting.
ONV-IPS31084F	Unmanaged industrial Ethernet switch with 6*10/100M RJ45 ports and 1*155M uplink SC fiber port (1310nm /20km single-mode dual fiber optical module). It can support dual DC power input and DIN rail mounting.

ONV-IPS31128FB	Unmanaged industrial Ethernet fiber switch with 8*10/100M RJ45 ports and 2*10/100/1000M RJ45 ports and 2*1000M SFP fiber ports. It can support dual DC power input and DIN rail mounting.

CONTACT US

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