



IPC-3012

Industrial Media Converter

1 x 100/1000Base-X SFP

1 x 10/100/1000Base-T RJ-45
With 60W PoE++

Description

Connection Technology Systems (CTS) IPC-3012 media converter is a Gigabit Ethernet 10/100/1000Base-T with 60W PoE++ to 100/1000Base-X media converter. The IPC-3012 converts traditional twisted-pair RJ-45 cable into various fiber media including multi-mode, single-mode, and bi-directional WDM, fulfilling different network deployment requirements.

The IPC-3012 is designed for deployment in harsh conditions. With DIN-Rail mounting, you can easily mount the media converter at your sites. The media converter supports one terminal block with 2 sets of DC power inputs which provide secure power redundancy and prevent any possible power loss. The relay output also delivers monitoring utility when connected to an audio or visual alarm device.

IPC-3012 media converter supports extended working temperature from -40°C to 75°C, capable of withstanding a harsh environment. This effortless and robust Gigabit media converter is designed for surveillance network system integrators, who have the need of implementing fiber optical networks over long distances for wide-area surveillance solutions, where wide operating temperature is a must.

The features Link Alarm and PoE Trigger enables some degree of monitoring and management, despite the converter being unmanaged.

- **Provide 1 x Gigabit RJ-45 Copper & 1 x SFP 100G/1000Base-X Interfaces**

Converts traditional twisted-pair RJ-45 cable into various fiber media including multi-mode, single-mode, and bi-directional WDM.

- **IEEE 802.3af/at and Maximum PoE Budget 60W**

Fully supports IEEE 802.3af/at PoE+ standard and provides PoE budget as high as 60W which fulfills the ever-demanding power requirement many PD-enabled devices.

- **PoE Setting - Auto/Force Power**

Flexible electrical power deployment by allowing installer to toggle between automatic and forceable power supply to a remote device.

- **Link Alarm**

The link alarm function ensures that the UTP and fiber ports can link up only when both connecting conditions are good, allowing users to easily identify and diagnose network issues.

- **PoE Trigger**

IPC-3012-PT also has the unique functionality of controlling PoE power based on fiber link status

- If fiber port is up, PoE-power is on according to setting.
- If fiber port is down, PoE-power is turned off

This enables that connected equipment can be remotely restarted by cycling uplink fiber port or shutdown when not used.

*K.21 is better than IEC 61000-4-5 Level 3 and designed for PoE application and outdoor environment

- **Relay Output for Fault Alarm Notification (Power, Ports)**

The relay output terminal block realizes instant alert to the faulty operation of the converter when connected to an audio or visual alarm device.

- **Dual Power Input (12 ~ 57VDC) & Built-in Power Booster**

Two sets of power inputs ranging from DC 12V ~ 57V bring you the seamless transition of power supply in case of a sudden outage on either set of power inputs.

- **6KV Surge Immunity on RJ-45 Copper (K.21*)**

IPC-3012 fulfils K.21 surge protection standard, which means a very strong resistance to sudden extreme peaks in both voltage and current.

- **Aluminum Housing**

The aluminum housing material provides a remarkable strength-to-weight ratio, capable of withstanding a rough operating environment yet still staying portably light-weight.

■ Interface

- TP Port:
1 x 10/100/1000Base-T RJ-45
- F/O Port:
1 x 100/1000Base-X SFP

■ PoE

- 1 x 60W PoE (RJ-45)
- Max. 60 Watts
- Compatible with 802.3af/at
- PoE Trigger: PoE power on / off follows fiber link up / down
- PoE Configuration: Auto/Force Power Mode

■ Standards

- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-TX/FX
- IEEE 802.3ab 1000Base-T
- IEEE 802.3z 1000Base-X
- IEEE 802.3af Power over Ethernet
- IEEE 802.3at Power over Ethernet Enhancements

■ H/W Specification

- Store and Forward Switching Mechanism
- Auto-negotiation in Copper and Fiber Port
- MDI/MDIX Auto-crossover Supported
- Support Fault Alarm Notification (Power, Ports)
- Support Auto & Force Mode Configuration
- Support Full/Half Duplex Mode
- MAC Address Table: 2K
- Memory Buffer: 128K Bytes
- Relay Output
- Surge Protection: 6KV (K.21)

■ LED

P1, P2, ALM, TP, PoE, SFP

■ Ethernet Features

Jumbo Frames: 9K Bytes
Support Link Alarm

■ Other Features

- DIP Switch Configuration
- Installation Type: DIN Rail Mounting

■ Power Requirement

- DC Input:
- Terminal Block x 1 With Two Sets of Power Inputs
- Input Voltage: 12 ~ 57VDC
- **Caution: Use 14AWG or better powering wire**
- Power Consumption: 64.8W (Max.)

■ Environmental Condition

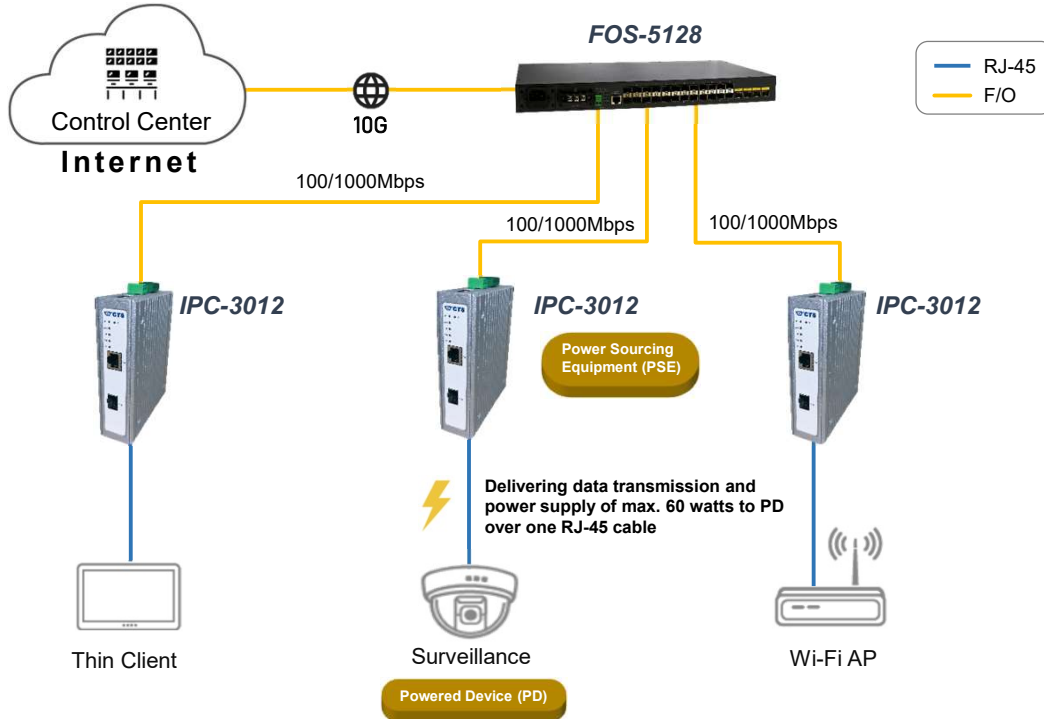
- Operating Temperature: -40°C ~ 75°C
- Storage Temperature: -40°C ~ 85°C
- Humidity: 5% ~ 90%, non-condensing
- IP30

■ Dimension & Weight

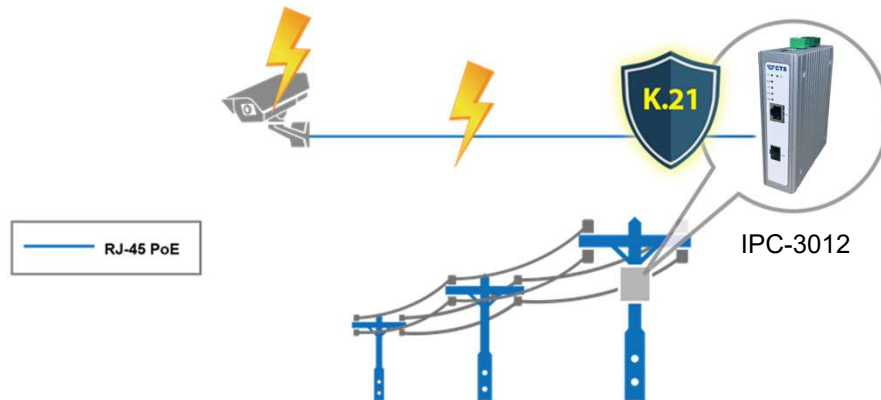
- Size: 36 x 110 x 135mm (W x D x H)
- Weight: 0.62kg
- Housing: Aluminum

■ EMC/Safety

FCC Class A, CE
ITU-T K.21
Shock: IEC 60068-2-27
Freefall: IEC 60068-2-32
Vibration: IEC 60068-2-6

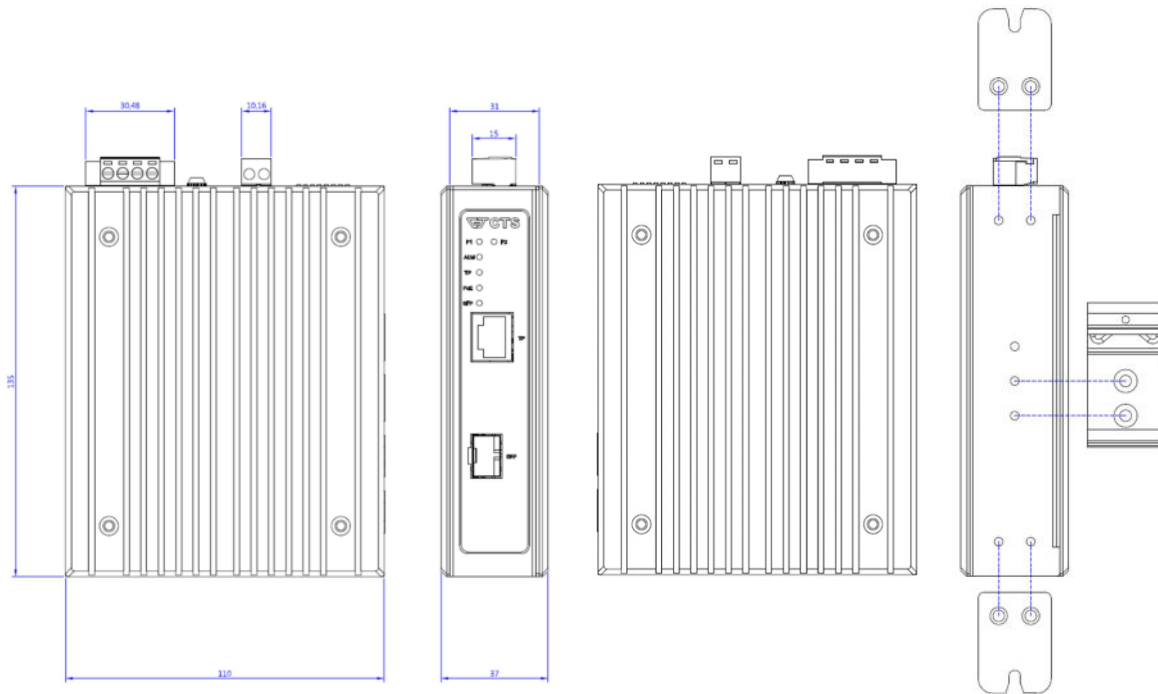


6KV Surge Immunity (K.21)



Test	K.21 (Enhanced Level)	IEC 61000-4-5 (Level 3)	K.21 Advantages
Temporary Voltage Surge	6KV	2KV	Ensures 3 times higher voltage
Temporary Current Surge	1850A	48A	Withstands 39 times higher current
PoE Standard	Released PoE testing standard in Dec. of 2016	N/A	Complies with safer PoE testing standards

Dimension



(unit = mm)

Order Information

IPC-3012

Model	Fiber Port				TP Port			Support Power Source
	Speed	Type	Connector	Port	PoE Trigger	Speed	PoE++ Port	
IPC-3012-PoE++	100/1000Mbps	SFP	-	1	-	10/100/1000Mbps	1	Terminal Block x 1 With Two Sets of Power Inputs
IPC-3012-PT	100/1000Mbps	SFP	-	1	✓	10/100/1000Mbps	1	Terminal Block x 1 With Two Sets of Power Inputs

Accessory

Power Supply

Model	Description	Remark
SDR-480-48	48V/480W Din-Rail Power Supply	Working Temperature: -25°C ~ 70°C
SDR-240-48	48V/240W Din-Rail Power Supply	Working Temperature: -25°C ~ 70°C
SDR-120-48	48V/120W Din-Rail Power Supply	Working Temperature: -25°C ~ 70°C
SDR-75-48	48V/75W Din-Rail Power Supply	Working Temperature: -25°C ~ 70°C
NDR-480-48	48V/480W Din-Rail Power Supply	Working Temperature: -20°C ~ 70°C
NDR-240-48	48V/240W Din-Rail Power Supply	Working Temperature: -20°C ~ 70°C
NDR-120-48	48V/120W Din-Rail Power Supply	Working Temperature: -20°C ~ 70°C
NDR-75-48	48V/75W Din-Rail Power Supply	Working Temperature: -20°C ~ 70°C
MDR-60-48	48V/60W Din-Rail Power Supply	Working Temperature: -20°C ~ 70°C
MDR-20-12	12V/20W Din-Rail Power Supply	Working Temperature: -20°C ~ 70°C

SFP-31-D

Model	Fiber Port					
	Speed	Type	Connector	Distance	Wavelength	Temperature
SFP-31FC-D	1000Mbps	MM	LC	550M	850nm	-40°C ~ 85°C
SFP-31FC-(MM-02)-D	1000Mbps	MM	LC	2KM	1310nm	-40°C ~ 85°C
SFP-31FC(SM-10/20)-D	1000Mbps	SM	LC	10/20KM	1310/1310nm	-40°C ~ 85°C
SFP-31W2A(SM-10/20)-D	1000Mbps	WDM	LC	10/20KM	TX: 1310/1310nm	-40°C ~ 85°C
					RX: 1550/1550nm	
SFP-31W2B(SM-10/20)-D	1000Mbps	WDM	LC	10/20KM	TX: 1550/1550nm	-40°C ~ 85°C
					RX: 1310/1310nm	