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IPC-3012

# **IPC-3012** Industrial Media Converter



1 Port 100/1000Mbps SFP Dual Rate and 1 Port 10/100/1000Base-T with 802.3af/at PoE+ Industrial Media Converter

# **Description**

Connection Technology Systems (CTS) IPC-3012 series media converter is a Gigabit Ethernet 10/100/1000 Base-T with 802.3af/at PoE+ to 100/1000Base-X media converter. The IPC-3012 series media converter converts traditional twisted-pair RJ45 cable into various fiber media including multi-mode, single-mode with SC connectors or bi-directional WDM to fulfill different requirements depending on the deployment.

The IPC-3012 series media converter is designed for deployment at industrial sites. With DIN-Rail mounting, you can easily mount the industrial PoE Media Converter at your sites. The media converter supports two DC power inputs to provide redundancy and prevent any possible power loss and Relay output to serve as an alarm.

The IPC-3012 media converter supports extended working temperature from -40°C to 75°C to withstand against harsh environment for a better performance. It is designed for surveillance network system integrators, who have the needs of implementing fiber optical Ethernet networks over long distance for wide-area surveillance solutions with the demand of wide operating temperature, and are looking for an effortless and robust Gigabit media converter.

### **Features**

- Provide 1 Gigabit RJ-45 Copper Port & 1 SFP Port 100FX or 1000BaseF(SX/LX/LH)
- Compatible with IEEE 802.3af/at PoE+
- PoE Setting Auto / Force Power
- Support 9K Jumbo Frames
- 6KV Surge Immunity on RJ-45 Copper Port (K.21\*)
- Dual Power Input (12~57VDC) & Built-in Power **Booster**
- Relay Output for Fault Alarm Notification (Power, Ports)
- Aluminum Housing
- Operating Temperature -40°C~75°C

\*K.21 is better than IEC 61000-4-5 Level 3 and designed for PoE Application and Outdoor environment

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# **Application Diagram**





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

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### **Specification**

#### ■Interface

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

#### PoE

- 1 x IEEE 802.3af/at (RJ-45)
- Max. 30 Watts per port
- 30 Watts PoE Budget

#### Standards

- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-TX
- 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 Fiber Port
- MDI/MDIX Auto-Crossover Supported
- Support Fault Alarm Notification (Power, Ports)
- Support Auto & Force Mode Configuration
- MAC Address Table : 2K
- Memory Buffer: 128 Bytes
- Relay Output

#### **■LED**

P1, P2, ALM, TP, PoE, SFP

#### Ethernet Features

Jumbo Frames: 9K Bytes

#### Other Features

- DIP Switch Configuration
- Installation Type: DIN Rail Mounting
- PoE Configuration: Auto-Mode/ Force Power

#### Environmental Condition

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

#### Power Requirement

DC Input:

- Terminal Block x 1 with two power inputs
- Input Voltage: 12~57VDC
- Power Consumption: 34.8W (Max.)

#### Dimension & Weight

- Size: 36x110x135 mm (WxDxH)
- Weight: 0.62Kg

#### ■EMC/Safety

FCC Class A, CE IEC 61000-4-2/3/4/5/6 ITU-T K.21

# **Order Information**

#### IPC-3012

| Model    | Fiber Ports      |      |           |          | TP Ports |                     |              |   |
|----------|------------------|------|-----------|----------|----------|---------------------|--------------|---|
|          | Speed            | Туре | Connector | Distance | Ports    | Speed               | PoE<br>Ports | Support Power Source                        |
| IPC-3012 | 100/1000<br>Mbps | SFP  | -         | -        | 1        | 10/100/1000<br>Mbps | 1            | Terminal Block x 1 with<br>two power inputs |

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