

# IMC-1001C & IMC-1001CS

## Industrial GbE Media Converter

- ◀ 1x GbE RJ45 to 1x 1000Base-X Fiber (SC) (Compact, Size)
- ▶ 1x GbE RJ45 to 1x 100/1000Base-X SFP (Compact, Size)

- » Supports LFPT (Link Fault Pass Through) and FEF (Far End Fault)
- » Provides a DIP-Switch to Set Functions
- » 12/24/48VDC (9.6~60VDC) Redundant Power input
- » CE and FCC Certified



These compact models are unmanaged industrial grade gigabit Ethernet media converters that support conversion between electrical 10/100/1000Base-T and optical 1000Base-X Ethernet. Housed in rugged DIN rail or wall mountable enclosures, these converters are designed for harsh environments, such as industrial networking and intelligent transportation systems (ITS) and are also suitable for many military and utility market applications where environmental conditions exceed commercial product specifications.

### Features

- IP30 rugged metal housing and fanless
- Wide operating temperature -20 ~ 70°C
- Store-and-Forward mode and Pass through mode (set by DIP SW)
- Conversion between 10/100/1000Base-T and 1000Base-X Fiber cable interface

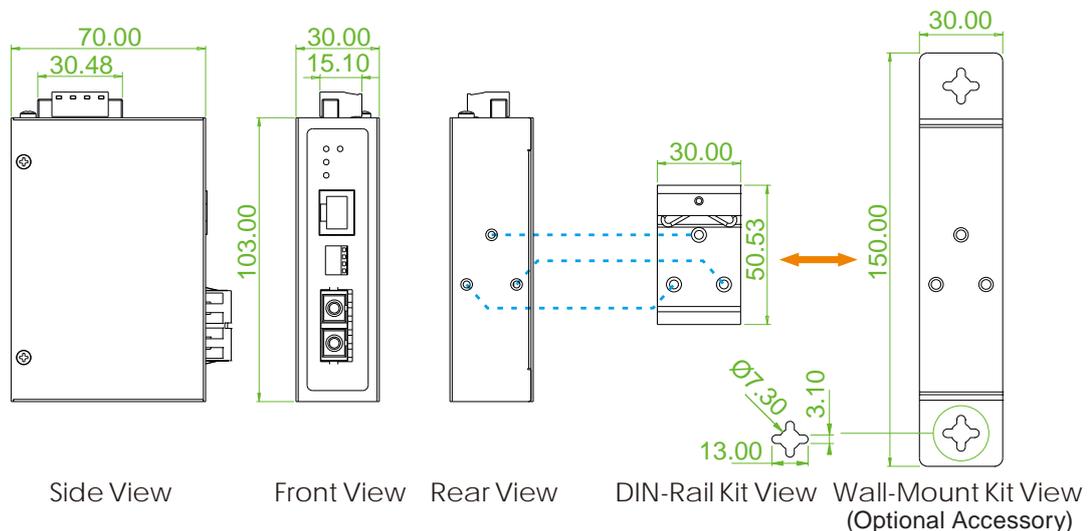
### Specifications

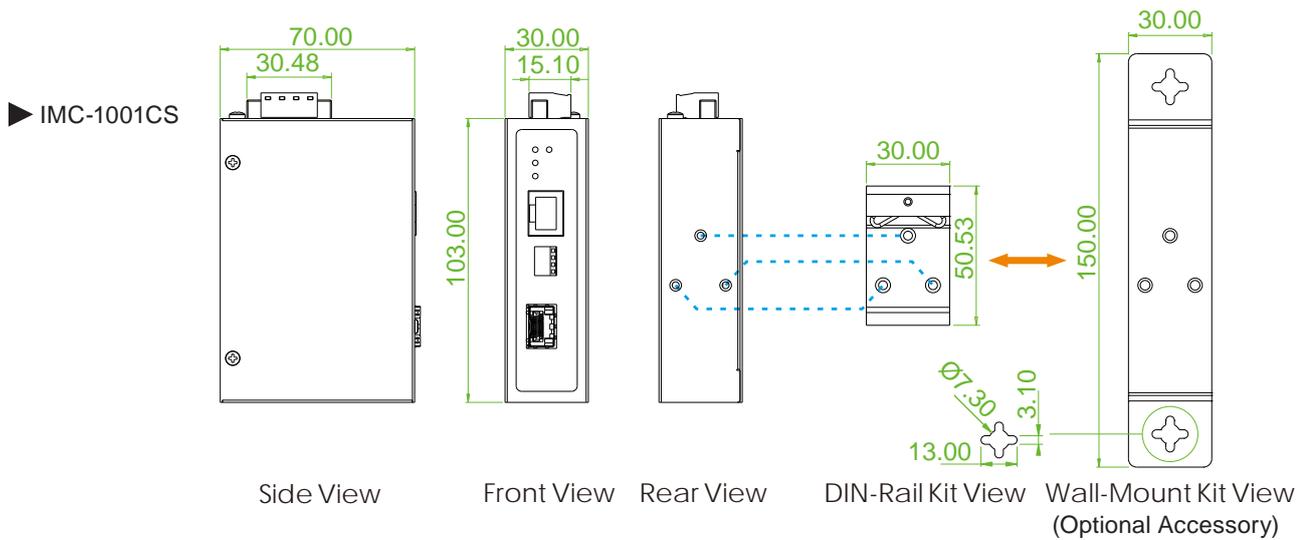
<b>Standard</b>	IEEE 802.3	10Base-T 10Mbit/s Ethernet
	IEEE 802.3u	100Base-TX, 100Base-FX, Fast Ethernet
	IEEE 802.3ab	1000Base-T Gbit/s Ethernet over twisted pair
	IEEE 802.3z	1000Base-X Gbit/s Ethernet over Fiber-Optic
	IEEE 802.3x	Flow Control and Back pressure
<b>RJ45 Ports</b>	10/100/1000Base-T Auto MDI/MDI-X and Auto negotiation Function	
<b>Fiber Ports</b>	1000Base-SX/LX SC (IMC-1001C) 100/1000Base-X SFP Slot (IMC-1001CS)	
<b>Data Process Architecture</b>	Store and Forward Switch mode or Pass through mode set by DIP SW	
<b>Jumbo Frame</b>	16K Bytes (For Store and Forward Switch mode)	
<b>Fiber Parameters</b>	Fiber Cable (Multi-mode): 50/125um, 62.5/125um	
	Fiber Cable (Single-mode): 9/125um	
	Wavelength: 1310nm (Multi-mode/Single-mode)	
	Available distance: (IMC-1001C) 500M (Multi-mode SX) / 20KM (Single-mode) / 40KM (Single-mode) Distance depend on SFP Fiber Transceiver (IMC-1001CS)	
<b>Link Fault Pass Through (LFPT)</b>	TX-Fiber: If TX port link down, the media converter will force Fiber port to link down	
	Fiber-TX: If Fiber port link down, the media converter will force TX port to link down	
<b>Far-End Fault (FEF)</b>	Work with LFPT to prevents data loss	
<b>DIP Switch</b>	Data Process Architecture	
	OFF: Store and forward switch mode, ON: Pass through mode	
	LFPT	
	OFF: LFPT Disable, ON: LFPT Enable	
<b>Connector</b>	SFP Fiber Speed (IMC-1001CS)	
	OFF: 1000Base-X, ON: 100Base-FX	
<b>Connector</b>	Fiber	
	SC Multi-mode, 500M/ SC Single-mode, 20KM, 40KM (IMC-1001C)	
	SFP Slot (IMC-1001CS)	
	RJ-45 Socket Auto MDI/MDI-X and Auto negotiation Function	

<b>LED</b>	Per Unit: Power 1 (Green), Power 2 (Green) SFP Fiber port Speed & Link/Act (IMC-1001CS) 100Base-X (Green), 1000Base-X (Amber) SC/ST Fiber port Speed & Link/Act (IMC-1001C) 1000Base-X (Amber) RJ-45 port: Speed & Link/Act: 10/100 (Green), 1000 (Yellow)												
<b>Reverse Polarity Protection</b>	Supported for power input												
<b>Overload Current Protection</b>	Supported												
<b>Power Supply</b>	12/24/48VDC (9.6~60VDC) Redundant input power with polarity reverse protect function and removable terminal block												
<b>Power Consumption</b>	<table border="1"> <thead> <tr> <th>Input Voltage</th> <th>12V</th> <th>24V</th> <th>48V</th> </tr> </thead> <tbody> <tr> <td>IMC-1001CS</td> <td>1.8W</td> <td>2W</td> <td>2.4W</td> </tr> <tr> <td>IMC-1001C</td> <td>1.8W</td> <td>2W</td> <td>2.4W</td> </tr> </tbody> </table>	Input Voltage	12V	24V	48V	IMC-1001CS	1.8W	2W	2.4W	IMC-1001C	1.8W	2W	2.4W
Input Voltage	12V	24V	48V										
IMC-1001CS	1.8W	2W	2.4W										
IMC-1001C	1.8W	2W	2.4W										
<b>Removable Terminal Block</b>	Provides for dual input power, 4 Pin												
<b>Operating Humidity</b>	5% ~ 95% (Non-condensing)												
<b>Operating Temperature</b>	-20 ~ 70°C (IMC-1001C-E, IMC-1001CS-E)												
<b>Storage Temperature</b>	-40 ~ 85°C												
<b>Housing</b>	Rugged Metal, IP30 Protection and fanless												
<b>Dimensions</b>	70 x 30 x 103mm (D x W x H)												
<b>Weight</b>	230g (IMC-1001C) 225g (IMC-1001CS)												
<b>Installation</b>	DIN Rail or wall mounting (Optional)												
<b>MTBF</b>	1,278,798 Hours (IMC-1001C) 1,940,623 Hours (IMC-1001CS) (MIL-HDBK-217)												
<b>Certification</b>													
<b>EMC</b>	CE (EN55032, EN55035)												
<b>EMI (Electromagnetic Interference)</b>	FCC Part 15 Subpart B Class A, CE												
<b>EMS (Electromagnetic Susceptibility) Protection Level</b>	EN61000-4-2 (ESD) Level 3, Criteria B EN61000-4-3 (RS) Level 3, Criteria A EN61000-4-4 (Burst) Level 3, Criteria A EN61000-4-5 (Surge) Level 3, Criteria B EN61000-4-6 (CS) Level 3, Criteria A EN61000-4-8 (PFMF, Magnetic Field) Field Strength: 300A/m, Criteria A												
<b>Shock</b>	IEC 60068-2-27												
<b>Freefall</b>	IEC 60068-2-32												
<b>Vibration</b>	IEC 60068-2-6												

## Dimensions

### IMC-1001C





## Ordering Information

Model Name	RJ45		Fiber		Power Input	Certification	Operating Temperature
	10/100/1000Base-T(X)	1000Base-X	Dual Speed 100/1000Base-X		Redundant Power	CE, FCC	
IMC-1001C-E	1	SC			12/24/48VDC	V	-20~70°C
IMC-1001CS-E	1		1		12/24/48VDC	V	-20~70°C

Connector Type	Connectivity Distance
SC (IMC-1001C-E only)	001:500M (M/M) 002 : 2km (M/M) 020:20km (S/M) 040:40km (S/M)
	020A: WDM 20km A type (TX:1310nm)
	020B: WDM 20km B type (TX: 1550nm)type

## Optional Accessories

### ■ Wall Mount Kit

IND-WMK03	Wall Mount kit for Industrial product (Compact, 150 x 30mm)
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### ■ Industrial SFP Transceiver

The ISFP series of industrial grade SFP modules have been fully tested with all CTC Union industrial grade Ethernet switches for guaranteed compatibility and performance. Best performance can be guaranteed, even in mission-critical applications. (Please see CTC Union's Industrial SFP datasheets for more items and detailed information.)

ISFP-M7000-85-D(E)	Industrial SFP GbE 1000Base-SX, M/M, 500 meter, wave length 850nm, 7.5dB, LC, DDMI, -10~70°C (-40~85°C)
ISFP-S7020-31-D(E)	Industrial SFP 1000Base-LX, S/M, 20km, wave length 1310nm, 15dB, LC, DDMI, -10~70°C (-40~85°C)
ISFP-T7T00-00-(E)	Industrial SFP 10/100/1000Base-T UTP 100meter, -10~70°C (-40~85°C)
ISFP-M5002-31-D(E)	Industrial SFP 155M 100Base-FX, MM, 2km, wave length 1310nm, 12dB, LC, DDMI, -10~70°C (-40~85°C)
ISFP-S5030-31-D(E)	Industrial SFP 155M 100Base-FX, SM, 30km, 1310nm, 19dB, LC, DDMI, -10~70°C (-40~85°C)

### ■ Industrial Power Supply

MDR-20-24	Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 24VDC, 24W, -20 ~ 70°C
MDR-40-48	Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 48VDC, 40W, -20 ~ 70°C