

IMC-1001C & IMC-1001CS

◀ 1x GbE RJ45 to 1x 1000Base Fiber (SC) (Compact, Size)

▶ 1x GbE RJ45 to 1x 100/1000Base SFP (Compact, Size)



- EN50121-4, CE, FCC, EN61000-6-2, EN61000-6-4 certified
- 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 input power



Ver.2022 May

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

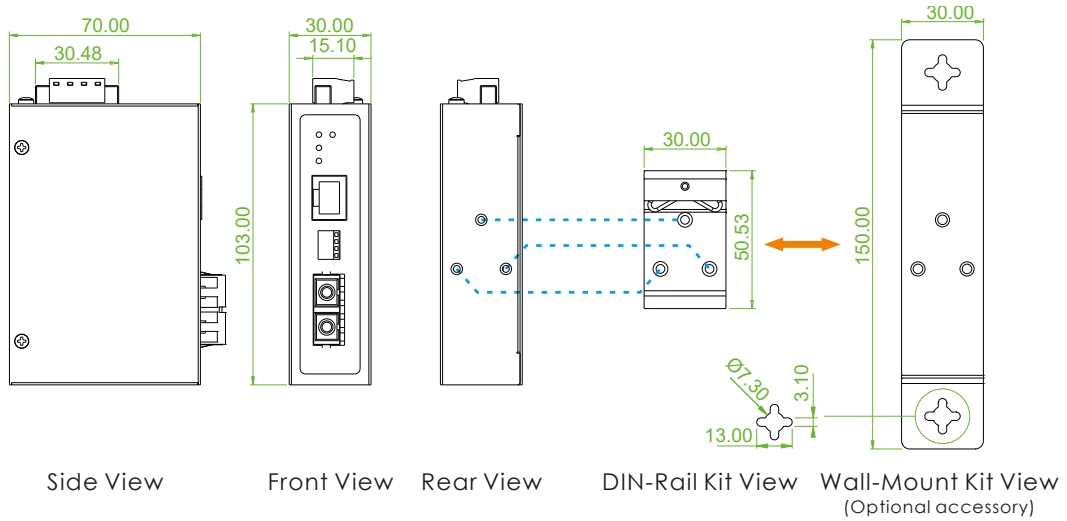
Specifications

Standard	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
RJ45 Ports	10/100/1000Base-T Auto MDI/MDI-X and Auto-Negotiation Function UTP/STP Cat.5e cable or above
Fiber Ports	1000Base-SX/LX SC (IMC-1001C) 100/1000Base-X SFP Slot (IMC-1001CS)
Data Process Architecture	Store and Forward Switch mode or Pass through mode set by DIP SW
Jumbo Frame	16K Bytes (For Store and Forward Switch mode)
Fiber Parameters	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)
Link Fault Pass Through (LFPT)	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
Far-End Fault (FEF)	Work with LFPT to prevents data loss
DIP Switch	Data process architecture Off: Store and Forward Switch mode On: Pass Through mode LFPT OFF: LFPT Disable ON: LFPT Enable SFP Fiber Speed OFF: 1000Base-X ON: 100Base-FX (for IMC-1001CS)
Connector	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 Supports
LED	Per Unit: Power 1 (Green), Power 2 (Green), SFP Fiber port Speed & Link/Act : (For IMC-1001CS) 100Base-X (Green), 1000Base-X (Amber) SC/ST Fiber port Speed & Link/Act : (For IMC-1001C) 1000Base-X (Amber) RJ-45 port: Speed & Link/Act 10/100 (Green), 1000 (Yellow)
Reverse Polarity Protection	Supported for power input
Overload Current Protection	Supported

Power Supply	12/24/48VDC (9.6~60VDC) Redundant input power with polarity reverse protect function and removable terminal block			
Power Consumption	Input Voltage	12V	24V	48V
	IMC-1001CS	1.8W	2W	2.4W
	IMC-1001C	1.8W	2W	2.4W
Removable Terminal Block	Provides for dual input power, 4 Pin			
Operating Humidity	5% ~ 95% (Non-condensing)			
Operating Temperature	-20~70°C (IMC-1001C-E, IMC-1001CS-E)			
Storage Temperature	-40 ~ 85°C			
Housing	Rugged Metal, IP30 Protection and fanless			
Dimensions	70x 30x 103 mm (D x W x H)			
Weight	230g (IMC-1001C) 225g (IMC-1001CS)			
Installation	DIN Rail, or wall mounting (Optional)			
MTBF	1,278,798 Hours (IMC-1001C) 1,940,623 Hours (IMC-1001CS) (MIL-HDBK-217)			
Warranty	5 years			
Certification				
EMC	CE (EN55032, EN55035)			
EMI (Electromagnetic Interference)	FCC Part 15 Subpart B Class A, CE			
Railway Traffic	EN50121-4			
Immunity for Heavy Industrial Environment	EN61000-6-2			
Emission for Heavy Industrial Environment	EN61000-6-4			
EMS (Electromagnetic Susceptibility) Protection Level	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			
Shock	IEC 60068-2-27			
Freefall	IEC 60068-2-32			
Vibration	IEC 60068-2-6			

Dimensions

IMC-1001C



Side View

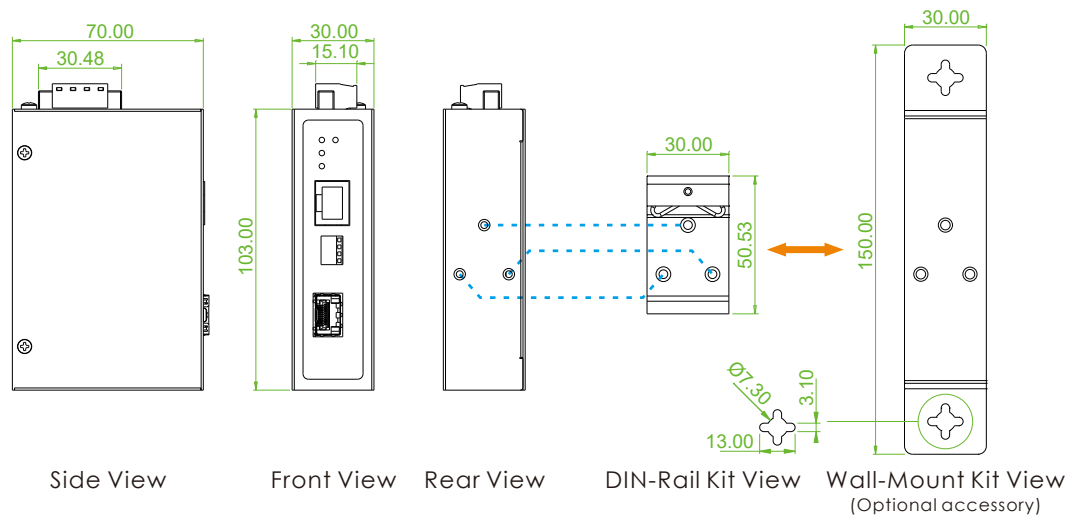
Front View

Rear View

DIN-Rail Kit View

Wall-Mount Kit View
(Optional accessory)

IMC-1001CS



Side View

Front View

Rear View

DIN-Rail Kit View

Wall-Mount Kit View
(Optional accessory)

Ordering Information

Model Name	RJ45 UTP Port	Fiber		Power Input	Certification				Operating Temperature
	10/100/1000Base-T	1000Base-X	Dual Speed 100/1000Base-X	Redundant Power	Railway EN50121-4	EN61000-6-2 EN61000-6-4	CE	FCC	
IMC-1001C-E	1	SC		12/24/48VDC	V	V	V	V	-20~70°C
IMC-1001CS-E	1		1 SFP	12/24/48VDC	V	V	V	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

Package List

- IMC-1001C, or IMC-1001CS device
- Din Rail with screws
- Terminal block
- Protective caps for SFP ports

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 the IMC-1001CS product for guaranteed compatibility and performance. The best performance can be guaranteed even in mission-critical applications. (Please see CTC Union's Industrial SFP datasheet for more details and more items.)

ISFP-M7000-85-(E)	Industrial SFP GbE 1000Base-SX, M/M, 500 meter, wave length 850nm, 7.5dB, LC, -10~70°C (-40~85°C)
ISFP-S7020-31-(E)	Industrial SFP 1000Base-LX, S/M, 20km, wave length 1310nm, 15dB, LC, -10~70°C (-40~85°C)
ISFP-T7100-00-(E)	Industrial SFP 1000Base-T UTP 100meter, -10~70°C (-40~85°C)
ISFP-M5002-31-(E)	Industrial SFP 155M 100Base-FX, MM, 2km, wave length 1310nm, 12dB, LC, -10~70°C (-40~85°C)
ISFP-S5030-31-(E)	Industrial SFP 155M 100Base-FX, SM, 30km, 1310nm, 19dB, LC, -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



Industrial Unmanaged GbE Media Converter IMC-1001C & IMC-1001CS